



Figure 10. Schematic diagram showing gaging stations in Snake River Basin between Idaho Falls and Snake River at Neeley.

WILLOW CREEK BASIN

13057300 GRAYS LAKE DIVERSION TO BLACKFOOT RIVER BASIN, NEAR WAYAN, ID

LOCATION.--Lat 43°00'20", long 111°29'37", (revised) in NW¹/₄NE¹/₄NE¹/₄ sec.11, T.5 S., R.42 E., Caribou County, Bear Island quad., Hydrologic Unit 17040205, on left bank, 0.5 mi downstream from control headgates, 3 mi upstream from Meadow Creek, and 6.7 mi west of Wayan.

PERIOD OF RECORD.--1927-43, 1945, 1947, 1949-50 (irrigation seasons only), June 1966 to September 1970, March 2000 to September 2003 (irrigation seasons only) (discontinued)..

GAGE.--Water-stage recorder. Datum of gage is 6,369.34 ft above NGVD of 1929. Prior to Oct. 1999 at datum 3.00 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 420 ft³/s May 22, 23, 1970; no flow at times most years.

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	---	---	---	---	---	---	0.38	0.19	0.15	0.31	e0.04	e0.05
2	---	---	---	---	---	---	0.37	0.17	0.19	0.29	e0.04	e0.05
3	---	---	---	---	---	---	0.39	0.17	0.17	0.28	e0.03	e0.05
4	---	---	---	---	---	---	0.38	0.16	0.11	0.25	e0.03	e0.06
5	---	---	---	---	---	---	0.37	0.14	0.05	0.19	e0.03	e0.06
6	---	---	---	---	---	---	0.39	0.13	0.00	0.14	e0.02	e0.06
7	---	---	---	---	---	---	0.38	0.13	0.00	0.13	e0.02	e0.06
8	---	---	---	---	---	---	0.37	0.12	0.04	0.15	e0.02	e0.07
9	---	---	---	---	---	---	0.36	0.11	0.11	0.12	e0.01	e0.07
10	---	---	---	---	---	---	0.35	0.11	0.08	0.14	e0.01	e0.07
11	---	---	---	---	---	---	0.34	0.08	0.00	0.10	0.00	e0.07
12	---	---	---	---	---	---	0.33	0.10	0.00	0.09	0.00	e0.06
13	---	---	---	---	---	---	0.32	0.09	0.08	0.09	e0.01	e0.06
14	---	---	---	---	---	---	0.33	0.07	0.07	0.11	e0.01	e0.06
15	---	---	---	---	---	---	0.31	0.04	0.07	0.15	e0.01	e0.05
16	---	---	---	---	---	---	0.29	0.05	0.12	0.17	e0.01	e0.05
17	---	---	---	---	---	---	0.31	0.04	0.16	0.17	e0.02	e0.05
18	---	---	---	---	---	---	0.30	0.02	0.18	0.08	e0.02	e0.04
19	---	---	---	---	---	---	0.27	0.02	0.18	e0.08	e0.02	e0.04
20	---	---	---	---	---	---	0.27	0.05	0.20	e0.08	e0.02	e0.03
21	---	---	---	---	---	---	0.26	0.05	0.21	e0.08	e0.03	e0.03
22	---	---	---	---	---	---	0.25	0.05	0.22	e0.07	e0.03	e0.03
23	---	---	---	---	---	---	0.24	0.05	0.22	e0.07	e0.03	e0.02
24	---	---	---	---	---	---	0.23	0.06	0.51	e0.07	e0.03	e0.02
25	---	---	---	---	---	---	0.22	0.05	0.46	e0.06	e0.03	e0.02
26	---	---	---	---	---	---	0.22	0.07	0.39	e0.06	e0.04	e0.01
27	---	---	---	---	---	---	0.22	0.07	0.35	e0.06	e0.04	e0.01
28	---	---	---	---	---	---	0.21	0.05	0.35	e0.05	e0.04	e0.01
29	---	---	---	---	---	---	0.19	0.04	0.35	e0.05	e0.04	0.00
30	---	---	---	---	---	---	0.19	0.06	0.34	e0.05	e0.05	0.00
31	---	---	---	---	---	---	---	0.08	---	e0.04	e0.05	---
TOTAL	---	---	---	---	---	---	9.04	2.62	5.36	3.78	0.78	1.26
MEAN	---	---	---	---	---	---	0.30	0.085	0.18	0.12	0.025	0.042
MAX	---	---	---	---	---	---	0.39	0.19	0.51	0.31	0.05	0.07
MIN	---	---	---	---	---	---	0.19	0.02	0.00	0.04	0.00	0.00
AC-FT	---	---	---	---	---	---	18	5.2	11	7.5	1.5	2.5

e Estimated

WILLOW CREEK BASIN

13057500 GRAYS LAKE OUTLET NEAR HERMAN, ID

LOCATION.--Lat 43°08'05", long 111°29'40", in NW¹/₄NE¹/₄NE¹/₄ sec.26, T.3 S., R.42 E., Bonneville County, Herman quad., Hydrologic Unit 17040205, on right bank 200 ft upstream from road crossing, 3.5 mi west of Herman, and 8 mi upstream from Brockman Creek.

DRAINAGE AREA.-- 137 mi².

PERIOD OF RECORD.--1916-25 (irrigation seasons only), June 1966 to October 1970, June 2002 to September 2003 (irrigation season only).

REVISED RECORDS.--WDR-ID-1969: 1967.

GAGE.--Water-stage recorder. Elevation of gage is 6,384 ft, from topographic map. Prior to Oct. 18, 1917, non-recording gage, and Oct. 18, 1917 to Sept. 30, 1925, water-stage recorder at site 2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,350 ft³/s May 15, 1917, gage height 5.9 ft (site and datum then in use); no flow Apr. 25, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.9 ft³/s Apr. 10; minimum daily, 0.05 ft³/s Sept. 1, 19-20, 22-28.

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	---	---	---	---	---	---	1.2	0.29	0.27	0.68	0.16	0.05
2	---	---	---	---	---	---	1.0	0.28	0.27	0.69	0.20	0.10
3	---	---	---	---	---	---	0.29	0.50	0.26	0.56	0.32	0.07
4	---	---	---	---	---	---	0.24	0.63	0.27	0.51	0.24	0.06
5	---	---	---	---	---	---	0.22	0.49	0.28	0.43	0.18	0.08
6	---	---	---	---	---	---	0.21	0.30	0.29	0.34	0.18	0.09
7	---	---	---	---	---	---	0.23	0.30	0.29	0.42	0.17	0.12
8	---	---	---	---	---	---	0.28	0.28	0.28	0.49	0.17	0.13
9	---	---	---	---	---	---	0.45	0.46	0.26	0.41	0.14	0.09
10	---	---	---	---	---	---	1.9	0.50	0.24	0.32	0.13	0.14
11	---	---	---	---	---	---	1.7	0.33	0.26	0.34	0.12	0.10
12	---	---	---	---	---	---	0.91	0.40	0.31	0.36	0.13	0.08
13	---	---	---	---	---	---	0.38	0.36	0.36	0.38	0.11	0.08
14	---	---	---	---	---	---	0.28	0.28	0.33	0.33	0.11	0.07
15	---	---	---	---	---	---	0.35	0.28	0.34	0.34	0.11	0.06
16	---	---	---	---	---	---	0.30	0.26	0.27	0.31	0.11	0.06
17	---	---	---	---	---	---	0.28	0.26	0.25	0.30	0.10	0.08
18	---	---	---	---	---	---	0.30	0.24	0.24	0.27	0.10	0.06
19	---	---	---	---	---	---	0.29	0.23	0.25	0.25	0.11	0.05
20	---	---	---	---	---	---	0.26	0.23	0.25	0.25	0.09	0.05
21	---	---	---	---	---	---	0.26	0.23	0.23	0.25	0.09	0.06
22	---	---	---	---	---	---	0.28	0.23	0.24	0.23	0.10	0.05
23	---	---	---	---	---	---	0.29	0.23	0.25	0.21	0.10	0.05
24	---	---	---	---	---	---	0.31	0.22	0.28	0.21	0.09	0.05
25	---	---	---	---	---	---	0.28	0.21	0.30	0.26	0.09	0.05
26	---	---	---	---	---	---	0.30	0.19	0.34	0.25	0.08	0.05
27	---	---	---	---	---	---	0.28	0.21	0.41	0.21	0.08	0.05
28	---	---	---	---	---	---	0.29	0.23	0.34	0.20	0.07	0.05
29	---	---	---	---	---	---	0.31	0.24	0.30	0.19	0.07	0.06
30	---	---	---	---	---	---	0.35	0.24	0.56	0.18	0.07	0.06
31	---	---	---	---	---	---	---	0.24	---	0.17	0.06	---
TOTAL	---	---	---	---	---	---	14.02	9.37	8.82	10.34	3.88	2.15
MEAN	---	---	---	---	---	---	0.47	0.30	0.29	0.33	0.13	0.072
MAX	---	---	---	---	---	---	1.9	0.63	0.56	0.69	0.32	0.14
MIN	---	---	---	---	---	---	0.21	0.19	0.23	0.17	0.06	0.05
AC-FT	---	---	---	---	---	---	28	19	17	21	7.7	4.3



Field vehicle in the early days of the Idaho Falls Field Office.

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'30", long 111°43'42", in NE¹/₄SE¹/₄ sec.3, T.1 N., R.40 E., Bonneville County, Lone Pine Ridge quad., Hydrologic Unit 17040205, on right bank, 0.3 mi below Tex Creek and 13.2 mi southeast of Ririe.

DRAINAGE AREA.--568 mi².

PERIOD OF RECORD.--August 1977 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,200 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 7,300 acres, of which 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake into Meadow Creek basin and thence into Blackfoot Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s May 7, 1997, gage height, 6.73 ft; minimum, 2.1 ft³/s Aug. 23, 1992, gage height, 1.62 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 271 ft³/s Apr. 15, gage height, 3.59 ft; minimum daily, 3.4 ft³/s July 25.

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	17	e18	e22	e16	e20	e18	92	124	54	13	3.6	6.9
2	18	e20	e20	e18	e20	e16	109	114	52	11	3.7	6.7
3	18	e20	e20	20	e18	e20	99	112	46	10	3.9	6.4
4	19	e22	20	21	e18	e18	79	149	42	10	6.4	5.4
5	18	e24	21	21	e18	e22	69	160	41	9.7	7.1	6.0
6	18	e24	20	e16	e16	26	65	151	39	9.0	5.4	6.7
7	17	e24	e18	e18	e16	25	61	133	37	8.1	6.6	7.6
8	17	24	e20	e16	e18	25	57	121	36	7.4	5.9	8.0
9	16	26	e20	e14	e20	31	59	114	35	6.8	5.5	9.2
10	16	26	e20	e16	e22	31	79	129	31	6.7	5.3	10
11	16	23	e20	19	e26	39	110	130	28	6.6	4.1	10
12	16	23	21	19	e26	67	141	122	27	6.6	3.7	9.8
13	16	22	e20	20	e28	107	171	126	24	5.9	3.8	8.9
14	16	23	21	e20	e26	148	224	119	24	5.6	3.7	8.4
15	17	e20	22	e16	e26	113	256	110	24	5.6	3.9	7.9
16	17	e16	e20	e18	e24	116	198	107	24	4.8	4.6	7.4
17	18	e18	e20	e16	e22	98	148	105	21	4.4	4.5	7.5
18	18	e20	e16	e18	e20	95	135	103	21	4.4	5.7	8.4
19	18	e18	e18	e18	e18	77	131	100	19	4.3	6.0	8.9
20	19	e20	e20	e20	e20	75	119	96	17	4.2	5.7	10
21	19	e20	e18	20	e22	71	120	90	18	4.1	5.0	10
22	18	e20	e16	21	e16	76	132	88	20	4.5	7.2	10
23	19	e20	e14	e20	e14	83	141	84	21	3.8	6.7	8.9
24	20	e20	e16	e20	e12	95	144	81	22	3.5	6.5	8.0
25	21	e16	e18	e18	e14	96	136	80	30	3.4	7.2	7.9
26	22	e18	e20	e20	e16	86	143	77	30	4.8	6.3	7.5
27	22	e20	e20	e18	e16	83	149	71	24	5.3	6.1	7.7
28	20	e22	e20	e16	e18	77	131	65	21	6.3	5.6	7.7
29	21	e24	e20	e18	---	72	133	60	18	7.5	5.8	8.0
30	21	e24	e18	e20	---	63	132	58	15	5.1	6.3	8.2
31	e20	---	e16	e22	---	66	---	54	---	4.1	7.0	---
TOTAL	568	635	595	573	550	2035	3763	3233	861	196.5	168.8	244.0
MEAN	18.3	21.2	19.2	18.5	19.6	65.6	125	104	28.7	6.34	5.45	8.13
MAX	22	26	22	22	28	148	256	160	54	13	7.2	10
MIN	16	16	14	14	12	16	57	54	15	3.4	3.6	5.4
AC-FT	1130	1260	1180	1140	1090	4040	7460	6410	1710	390	335	484

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	37.1	41.5	40.0	40.0	42.6	87.1	322	416	164	57.4	32.8	29.0
MAX	73.6	80.0	67.7	101	65.1	264	867	1427	409	148	93.1	72.7
(WY)	1987	1999	1999	1997	1986	1986	1986	1997	1999	1997	1997	1997
MIN	10.5	16.7	18.7	18.5	18.7	26.1	63.5	25.3	15.2	6.34	3.16	7.38
(WY)	1993	1993	2002	2003	2002	2002	1992	1992	1992	2003	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1977 - 2003
ANNUAL TOTAL	14546.3	13422.3	
ANNUAL MEAN	39.9	36.8	109
HIGHEST ANNUAL MEAN			287
LOWEST ANNUAL MEAN			27.4
HIGHEST DAILY MEAN	261	256	2210
LOWEST DAILY MEAN	6.6	3.4	2.4
ANNUAL SEVEN-DAY MINIMUM	7.4	4.0	2.7
ANNUAL RUNOFF (AC-FT)	28850	26620	79240
10 PERCENT EXCEEDS	115	111	259
50 PERCENT EXCEEDS	20	20	47
90 PERCENT EXCEEDS	9.4	5.9	15

e Estimated

WILLOW CREEK BASIN
13058000 WILLOW CREEK NEAR RIRIE, ID

LOCATION.--Lat 43°35'00", long 111°44'45", in SE¹/₄SE¹/₄ sec.16, T.3 N., R.40 E., Bonneville County, Poplar quad., Hydrologic Unit 17040205, on right bank 0.25 mi downstream from Ririe Dam, 3.4 mi southeast of Ririe, and at mile 20.2.

DRAINAGE AREA.--627 mi².

PERIOD OF RECORD.--April 1903 to September 1904, October 1916 to September 1925, May to August 1928, October 1962 to September 1979, October 1985 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Elevation of gage is 4,950 ft above NGVD of 1929, from topographic map. Prior to September 1904, nonrecording gage at site about 3.25 mi downstream at different datum. October 1916 to June 1921, nonrecording gage, June 1921 to August 1928, water-stage recorder at present site. October 1962 to September 1979, at site 1.75 mi downstream at different datum. Records comparable.

REMARKS.--No estimated daily discharges. Records good. Diversions above station for irrigation of about 7,300 acres, of which about 100 acres are irrigated by withdrawals from ground water (1966 determination). Since May 1924, water has been diverted from Grays Lake some years, about 40 mi upstream, into Meadow Creek basin and thence into Blackfoot Reservoir. Flow regulated by Ririe Reservoir beginning December 1975, with some storage beginning July 1974. During winter months when gates at Ririe Dam are closed, seepage may pass the gage, but sinks into the gravels; consequently this flow is not published.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed (1903-74), 4,200 ft³/s May 15, 1917, gage height, 16.30 ft; minimum daily, 1.2 ft³/s Aug. 12, 1974.

Maximum discharge since regulation began in 1975, 2,320 ft³/s May 20, 1975, gage height, 14.07 ft; no flow for long periods most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1899, 5,080 ft³/s Feb. 11, 1962, from estimate based on field survey, gage height, 15.0 ft from floodmarks; stream reported practically dry during summers of 1899 and 1934.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 439 ft³/s Aug. 26; no flow for long periods.

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	106	24	25	424
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	106	24	25	327
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	106	24	25	225
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	106	24	25	166
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	108	24	26	113
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	109	24	26	112
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	109	24	26	111
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	109	24	26	64
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	110	24	26	31
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	89	24	26	31
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	43	23	27	31
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	27	32
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	28	32
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	29	32
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	30	31
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	30	32
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	33	23	30	31
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	27	23	292	31
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	24	23	435	31
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	24	23	429	31
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	24	23	426	32
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	24	23	423	32
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105	24	23	418	32
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	24	23	416	32
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105	24	24	434	32
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105	24	24	439	10
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105	24	24	436	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	68	106	24	24	434	0.00
29	0.00	0.00	0.00	0.00	---	0.00	105	106	24	24	433	0.00
30	0.00	0.00	0.00	0.00	---	0.00	105	106	24	24	430	0.00
31	0.00	---	0.00	---	---	0.00	---	106	---	24	427	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	278.00	3231	1614	730	6329	2088.00
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	9.27	104	53.8	23.5	204	69.6
MAX	0.00	0.00	0.00	0.00	0.00	0.00	105	106	110	24	439	424
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103	24	23	25	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	551	6410	3200	1450	12550	4140

WILLOW CREEK BASIN

13058000 WILLOW CREEK NEAR RIRIE, ID--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1974, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	50.0	53.6	49.0	58.5	64.3	102	401	851	358	111	48.4	42.3
MAX	92.6	81.4	91.6	160	155	274	750	2133	1325	313	117	73.1
(WY)	1973	1973	1965	1969	1963	1972	1919	1917	1917	1917	1917	1917
MIN	20.5	30.4	25.3	25.4	35.0	35.5	124	234	85.9	35.3	12.5	16.6
(WY)	1964	1967	1970	1963	1904	1964	1970	1966	1924	1919	1966	1924

SUMMARY STATISTICS

^a WATER YEARS 1903 - 1974

ANNUAL MEAN	176
HIGHEST ANNUAL MEAN	280
LOWEST ANNUAL MEAN	88.0
HIGHEST DAILY MEAN	4200
LOWEST DAILY MEAN	1.2
ANNUAL SEVEN-DAY MINIMUM	4.3
ANNUAL RUNOFF (AC-FT)	127700
10 PERCENT EXCEEDS	546
50 PERCENT EXCEEDS	66
90 PERCENT EXCEEDS	32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2003, BY WATER YEAR (WY) (REGULATED, UNADJUSTED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	182	58.8	12.2	5.33	10.9	37.6	78.1	305	191	83.4	144	247
MAX	443	223	116	51.9	67.5	360	434	1360	824	340	670	610
(WY)	1998	1999	1996	1975	1978	1986	1976	1997	1975	1976	1994	1993
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.5	30.4	23.5	25.1	17.7
(WY)	2002	1992	1986	1986	1987	1987	1988	1977	2001	2003	1977	1977

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

^b WATER YEARS 1975 - 2003

ANNUAL TOTAL	11817.00	14270.00
ANNUAL MEAN	32.4	39.1
HIGHEST ANNUAL MEAN		113
LOWEST ANNUAL MEAN		295
HIGHEST DAILY MEAN	455	Aug 29
LOWEST DAILY MEAN	0.00	Jan 1
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1
ANNUAL RUNOFF (AC-FT)	23440	28300
10 PERCENT EXCEEDS	91	105
50 PERCENT EXCEEDS	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00

^a Unregulated

^b Regulated

WILLOW CREEK BASIN

13058510 SAND CREEK ABOVE WILLOW CREEK DIVERSION, NEAR UCON, ID

LOCATION.--Lat 43°34'27", long 111°53'42", in NE¹/₄SW¹/₄ sec.20, T.3 N., R.39 E., Bonneville County, Ucon quad., Hydrologic Unit 17040201, on right bank about 300 ft downstream from Sand Creek control gates, about 0.6 mi east of U.S. Highway 26 crossing with Willow Creek, and 3.3 mi southeast of Ucon.

PERIOD OF RECORD.--March 1978 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,850 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow controlled by headgates. Water is diverted during the irrigation season from the Snake River through Eagle Rock Canal to Willow Creek 5.5 mi upstream from the station. Diversions below Ririe Lake (13057950) and above station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 797 ft³/s June 13, 1996; no flow for long periods.

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	270	0.00	0.00	0.00	0.00	0.00	0.00	102	658	468	360	282
2	193	0.00	0.00	0.00	0.00	0.00	0.00	116	650	467	367	273
3	171	0.00	0.00	0.00	0.00	0.00	0.00	137	624	490	370	268
4	151	0.00	0.00	0.00	0.00	0.00	0.00	135	635	520	374	262
5	167	0.00	0.00	0.00	0.00	0.00	0.00	120	618	526	369	256
6	162	0.00	0.00	0.00	0.00	0.00	0.00	103	599	529	358	257
7	163	0.00	0.00	0.00	0.00	0.00	0.00	77	557	527	375	257
8	167	0.00	0.00	0.00	0.00	0.00	0.00	73	550	530	393	252
9	178	0.00	0.00	0.00	0.00	0.00	0.00	116	548	522	360	243
10	172	0.00	0.00	0.00	0.00	0.00	0.00	124	548	522	380	236
11	154	0.00	0.00	0.00	0.00	0.00	0.00	126	503	517	387	235
12	1.8	0.00	0.00	0.00	0.00	0.00	0.00	129	510	498	442	229
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143	520	506	342	220
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	199	541	449	193	216
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	245	549	291	243	211
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	252	571	308	262	213
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	283	599	335	282	211
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	334	594	369	318	215
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	313	589	375	312	215
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	316	564	382	311	215
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	397	547	389	307	210
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	457	537	401	312	205
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	492	512	405	325	209
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	492	515	409	323	211
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	539	499	411	318	207
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	565	478	422	308	205
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	567	478	429	295	200
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	547	447	418	301	204
29	0.00	0.00	0.00	0.00	---	0.00	77	567	428	368	305	202
30	0.00	0.00	0.00	0.00	---	0.00	82	582	437	345	305	205
31	0.00	---	0.00	0.00	---	0.00	---	622	---	346	294	---
TOTAL	1949.80	0.00	0.00	0.00	0.00	0.00	159.00	9270	16405	13474	10191	6824
MEAN	62.9	0.000	0.000	0.000	0.000	0.000	5.30	299	547	435	329	227
MAX	270	0.00	0.00	0.00	0.00	0.00	82	622	658	530	442	282
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73	428	291	193	200
AC-FT	3870	0.00	0.00	0.00	0.00	0.00	315	18390	32540	26730	20210	13540
CAL YR 2002	TOTAL	54616.80	MEAN	150	MAX	541	MIN	0.00	AC-FT	108300		
WTR YR 2003	TOTAL	58272.80	MEAN	160	MAX	658	MIN	0.00	AC-FT	115600		

WILLOW CREEK BASIN

13058520 WILLOW CREEK FLOODWAY CHANNEL NEAR UCON, ID

LOCATION.--Lat 43°34'35", long 111°54'47", SW¹/₄NE¹/₄ sec.19, T.3 N., R.39 E., Bonneville County, Ucon quad., Hydrologic Unit 17040201, on right bank 300 ft below Willow Creek floodway channel diversion structure, 2 mi southeast of Ucon.

PERIOD OF RECORD.--April 1978 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,840 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow controlled by headgates. Floodway channel built to carry excess flow from Willow Creek and Sand Creek during periods of flooding.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,030 ft³/s Feb. 11, 1979; no flow for long periods.

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	6.4	0.00	0.00	0.00	0.00	0.00	0.00	12	0.00	0.00	0.00	395
2	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	348
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.5
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.2
12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.1
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.5
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.2	10
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.8
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.7
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.2
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113	6.1
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394	5.4
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	388	4.6
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383	4.4
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	387	4.7
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	381	5.0
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	380	4.6
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	384	3.6
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	391	3.6
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	393	3.6
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	389	3.8
29	0.00	0.00	0.00	0.00	---	0.00	63	0.00	0.00	0.00	395	3.7
30	0.00	0.00	0.00	0.00	---	0.00	43	0.00	0.00	0.00	402	3.3
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	400	---
TOTAL	7.31	0.00	0.00	0.00	0.00	0.00	106.00	12.27	0.00	0.00	5183.20	1496.4
MEAN	0.24	0.000	0.000	0.000	0.000	0.000	3.53	0.40	0.000	0.000	167	49.9
MAX	6.4	0.00	0.00	0.00	0.00	0.00	63	12	0.00	0.00	402	395
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.3
AC-FT	14	0.00	0.00	0.00	0.00	0.00	210	24	0.00	0.00	10280	2970
CAL YR 2002	TOTAL	5239.00	MEAN	14.4	MAX	391	MIN	0.00	AC-FT	10390		
WTR YR 2003	TOTAL	6805.18	MEAN	18.6	MAX	402	MIN	0.00	AC-FT	13500		

WILLOW CREEK BASIN

13058529 WILLOW CREEK FLOODWAY CHANNEL AT MOUTH NEAR IDAHO FALLS, ID

LOCATION.--Lat 43°34'29", long 112°02'53", NE¹/₄ NW¹/₄ SE¹/₄ sec.24, T.3 N., R.37 E., Bonneville County, Idaho Falls North quad., Hydrologic Unit 17040201, on left bank 80 ft upstream from mouth, and 4.5 mi north of Idaho Falls.

PERIOD OF RECORD.--October 1987 to current year. Published 1988-91 as station number 13058549.

GAGE.--Water-stage recorder. Elevation of gage is 4,745 ft above NGVD of 1929, from topographic map. October 1987 to April 14, 1988 at datum 10.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow controlled by headgates. Floodway channel built to carry excess flow from Willow Creek and Sand Creek during periods of flooding.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 913 ft³/s May 11, 1997; no flow for long periods.

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	7.6	0.00	0.00	0.00	0.00	0.00	0.00	2.6	0.00	0.00	0.00	306
2	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	277
3	5.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.58	0.00	131
4	4.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.1	0.00	108
5	6.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	42
6	6.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	36
7	6.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	32
8	6.8	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.15	28
9	5.4	0.00	0.00	0.00	0.00	0.00	0.00	3.4	0.00	0.00	4.2	0.99
10	4.0	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
11	3.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.43	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.7	0.00	0.31	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.32	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00
17	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.41	1.9	0.00	0.00	0.00
18	2.3	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.37	0.00	49	0.00
19	1.3	0.00	0.00	0.00	0.00	0.00	0.00	0.50	2.4	0.00	306	1.1
20	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	307	0.14
21	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	302	0.00
22	1.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	306	0.00
23	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.1	0.00	300	0.03
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	296	1.3
25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.3	0.00	300	1.2
26	1.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	306	0.83
27	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	308	2.1
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	303	0.01
29	0.00	0.00	0.00	0.00	---	0.00	36	0.00	0.00	0.00	306	0.37
30	0.00	0.00	0.00	0.00	---	0.00	17	0.00	0.20	0.00	312	0.45
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.29	309	---
TOTAL	76.15	0.00	0.00	0.00	0.00	0.00	53.00	15.88	10.99	3.82	4014.67	968.52
MEAN	2.46	0.000	0.000	0.000	0.000	0.000	1.77	0.51	0.37	0.12	130	32.3
MAX	7.6	0.00	0.00	0.00	0.00	0.00	36	4.6	2.4	1.1	312	306
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	151	0.00	0.00	0.00	0.00	0.00	105	31	22	7.6	7960	1920
CAL YR 2002	TOTAL	4315.29	MEAN	11.8	MAX	330	MIN	0.00	AC-FT	8560		
WTR YR 2003	TOTAL	5143.03	MEAN	14.1	MAX	312	MIN	0.00	AC-FT	10200		

WILLOW CREEK BASIN

13058530 WILLOW CREEK BELOW FLOODWAY CHANNEL, NEAR UCON, ID

LOCATION.--Lat 43°34'33", long 111°54'43", SE¹/₄ sec.19, T.3 N., R.39 E., Bonneville County, Ucon quad., Hydrologic Unit 17040201, on left bank 100 ft below outlet diversion structure, and 2.0 mi southeast of Ucon.

PERIOD OF RECORD.--December 1977 to September 1979, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,840 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1990, at datum 3.0 ft lower.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow controlled by headgates. Water is diverted during the irrigation season from the Snake River through the Eagle Rock Canal to Willow Creek about 6.5 mi upstream from the station. Diversions below Ririe Lake (13057950) and above station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 279 ft³/s Feb. 11, 1979; no flow for long periods.

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	47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174	161	149	81
2	52	0.00	0.00	0.00	0.00	0.00	0.00	11	174	162	147	76
3	59	0.00	0.00	0.00	0.00	0.00	0.00	42	177	159	147	71
4	54	0.00	0.00	0.00	0.00	0.00	0.00	43	177	157	145	74
5	49	0.00	0.00	0.00	0.00	0.00	0.00	51	177	157	144	65
6	49	0.00	0.00	0.00	0.00	0.00	0.00	35	175	157	144	83
7	49	0.00	0.00	0.00	0.00	0.00	0.00	55	175	156	144	82
8	48	0.00	0.00	0.00	0.00	0.00	0.00	45	175	156	143	79
9	47	0.00	0.00	0.00	0.00	0.00	0.00	44	174	154	128	78
10	46	0.00	0.00	0.00	0.00	0.00	0.00	42	173	155	116	94
11	43	0.00	0.00	0.00	0.00	0.00	0.00	54	171	155	116	94
12	0.19	0.00	0.00	0.00	0.00	0.00	0.00	60	171	153	115	98
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58	171	154	115	102
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69	171	154	89	97
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82	171	152	69	86
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99	171	150	70	85
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112	171	151	71	88
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	131	171	149	68	88
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143	171	148	69	84
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	156	167	154	72	79
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	162	162	155	71	80
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171	161	153	72	85
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	179	160	153	71	87
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	173	161	154	72	82
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174	160	154	72	65
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	176	159	149	72	70
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	175	160	148	73	74
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	173	160	149	72	82
29	0.00	0.00	0.00	0.00	---	0.00	0.00	174	161	149	76	85
30	0.00	0.00	0.00	0.00	---	0.00	0.00	176	161	149	83	79
31	0.00	---	0.00	0.00	---	0.00	---	175	---	150	82	---
TOTAL	543.19	0.00	0.00	0.00	0.00	0.00	0.00	3240.00	5062	4757	3077	2473
MEAN	17.5	0.000	0.000	0.000	0.000	0.000	0.000	105	169	153	99.3	82.4
MAX	59	0.00	0.00	0.00	0.00	0.00	0.00	179	177	162	149	102
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159	148	68	65
AC-FT	1080	0.00	0.00	0.00	0.00	0.00	0.00	6430	10040	9440	6100	4910
CAL YR 2002	TOTAL	19246.19	MEAN	52.7	MAX	163	MIN	0.00	AC-FT	38170		
WTR YR 2003	TOTAL	19152.19	MEAN	52.5	MAX	179	MIN	0.00	AC-FT	37990		

SNAKE RIVER MAIN STEM

13062500 SNAKE RIVER AT BLACKFOOT, ID

LOCATION.--Lat 43°11'51", long 112°22'09", in SE¹/₄SW¹/₄ sec.33, T.2 S., R.35 E., Bingham County, Blackfoot quad., Hydrologic Unit 17040206, on left bank immediately upstream from old Riverside Highway bridge, 0.25 mi downstream from new U.S. Highway 26 bridge, 1.2 mi west of Blackfoot, and at mile 764.3.

DRAINAGE AREA.--9,950 mi².

PERIOD OF RECORD.--August 1978 to current year. Records for May 1924 to September 1932 at site downstream, published as "Snake River below Blackfoot Bridge, near Blackfoot", are not equivalent because diversions were not included.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 4,490 ft above NGVD of 1929, from topographic map. May 1924 to Sept. 1932, water-stage recorder at site downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Flow regulated by Jackson Lake, Palisades Reservoir, Henrys Lake, Island Park Reservoir, and Grassy Lake, having a combined capacity of 2,570,000 acre-ft. Diversions above station for irrigation of about 750,000 acres. Considerable water leaks above the station into the Snake River Plain aquifer.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,200 ft³/s June 17, 1997, gage height, 13.55 ft; maximum gage height, 14.71 ft, Feb. 7, 1985, result of backwater from ice; minimum, 2.7 ft³/s Apr. 29, 1992, gage height, 0.91 ft, caused by irrigation diversions.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,700 ft³/s July 28; minimum daily, 464 ft³/s Apr. 11.

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	2370	2270	2160	2160	2070	1870	1730	1590	3200	3610	4230	6270
2	2780	2230	2140	e2000	2480	1780	1740	1420	3510	2980	3800	6570
3	2190	2250	2110	2120	2380	1770	1480	1570	3390	2830	3980	6250
4	1830	2230	2130	2000	2280	1820	1350	1530	3120	3100	4030	5430
5	1500	2210	2110	2010	2090	1820	1010	1920	2630	3030	4230	5020
6	1560	2170	2080	e1900	e1950	1760	907	2200	2240	3060	4250	4520
7	1660	2290	2080	e1950	e1700	1720	888	2080	2010	3080	4260	4460
8	1600	2270	2060	e1850	e1600	1780	709	1750	2080	3060	4200	3970
9	1500	2340	2020	e1650	e1600	1810	796	1440	2140	3330	4300	3350
10	1410	2360	2000	e1500	1930	1740	647	1040	2030	3310	4530	3380
11	1360	2400	1970	e1900	2070	1810	464	1230	1790	3460	4570	3390
12	1890	2350	2010	1980	2020	1800	479	1470	1820	3530	4560	3350
13	2030	2300	2020	2020	1980	1980	617	1330	2040	3690	4470	3010
14	1900	2260	2050	2050	1940	2060	958	1200	2510	4120	4400	3010
15	2030	2220	2050	2050	2020	2190	1340	1340	3070	4300	5010	2970
16	2170	2240	2020	e1900	2050	2260	1360	1610	3280	4450	5020	2500
17	2110	2180	2050	e1850	2080	2230	1330	1810	3120	4600	4450	2490
18	2070	2180	2070	e1750	1970	2200	1140	2000	3340	4630	4190	3060
19	2020	2170	2000	e1600	1900	2020	1070	2310	3400	4870	4640	3450
20	1960	2120	2030	e1650	1930	1980	1070	1890	3720	5400	4600	3340
21	1920	2180	1850	e1900	1840	1890	1420	1120	3970	5880	4650	3160
22	1950	2150	2010	1970	1790	1870	1260	602	4250	5980	4760	3100
23	1920	2170	e1950	1890	e1790	1800	1270	584	4450	6220	4880	2940
24	1750	2190	e1900	1950	e1800	1900	1630	1050	4330	6330	5080	2800
25	1750	2300	e1450	1940	e1550	1890	1620	2070	4200	6690	5300	2500
26	1770	2150	e1300	1850	e1650	1930	1650	2920	4060	7100	5430	1990
27	1780	2050	1690	1880	1730	1960	1850	2960	3810	7330	5360	1870
28	1830	2100	2020	1900	1850	1960	2130	3080	3940	7700	5490	1800
29	1880	2110	2150	2100	---	1930	1950	2880	4000	7670	5680	1730
30	1960	2230	2060	2230	---	1840	1740	2810	4080	6900	5780	1660
31	2150	---	2400	2130	---	1770	---	2820	---	5410	6200	---
TOTAL	58600	66670	61940	59630	54040	59140	37605	55626	95530	147650	146330	103340
MEAN	1890	2222	1998	1924	1930	1908	1254	1794	3184	4763	4720	3445
MAX	2780	2400	2400	2230	2480	2260	2130	3080	4450	7700	6200	6570
MIN	1360	2050	1300	1500	1550	1720	464	584	1790	2830	3800	1660
AC-FT	116200	132200	122900	118300	107200	117300	74590	110300	189500	292900	290200	205000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY)

MEAN	2617	3484	3498	3636	3809	5123	6802	9814	10180	5050	2995	2610
MAX	6093	7926	8271	7995	10910	15280	19450	22080	30360	13150	7400	6099
(WY)	1984	1984	1984	1984	1997	1997	1986	1986	1997	1983	1997	1984
MIN	871	1810	1535	1398	1511	1489	1254	1535	2050	1726	1156	726
(WY)	1982	1982	1989	1989	2002	1988	2003	1988	1988	1985	1981	1981

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1978 - 2003
ANNUAL TOTAL	848866	946101	
ANNUAL MEAN	2326	2592	4975
HIGHEST ANNUAL MEAN			11120
LOWEST ANNUAL MEAN			2019
HIGHEST DAILY MEAN	6370	Sep 9	7700
LOWEST DAILY MEAN	838	May 11	464
ANNUAL SEVEN-DAY MINIMUM	1150	May 9	657
ANNUAL RUNOFF (AC-FT)	1684000	1877000	3604000
10 PERCENT EXCEEDS	3880	4560	11800
50 PERCENT EXCEEDS	2000	2070	2960
90 PERCENT EXCEEDS	1500	1480	1500

e Estimated

BLACKFOOT RIVER BASIN

13063000 BLACKFOOT RIVER ABOVE RESERVOIR NEAR HENRY, ID

LOCATION.--Lat 42°48'56", long 111°30'21", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.14, T.7 S., R.42 E., Caribou County, China Hat quad., Hydrologic Unit 17040207, on right bank 70 ft upstream from railroad bridge, just upstream from the Monsanto Chemical Company "Haul Road", 5 mi upstream from Blackfoot Reservoir flow line, 6 mi south of Henry, 11 mi north of Soda Springs, and at mile 90.8.

DRAINAGE AREA.--350 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1914 to September 1925 (no winter records except water year 1915), August 1967 to September 1982, April 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,259.36 ft above NGVD of 1929 (levels by Topographic Division). Mar. 25, 1914 to Sept. 30, 1914, nonrecording gage at site 3.3 mi downstream at different datum. Oct. 1, 1915 to Sept. 30, 1925, nonrecording gage at site 4 mi downstream at different datum. August 1967 to September 1982 recording gage at present site and datum.

REMARKS.--Records fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 4,500 acres (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft³/s Apr. 26, 1974, gage height, 8.60 ft; minimum daily, 5.0 ft³/s Aug. 14, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 409 ft³/s Apr. 15; minimum daily, 10.0 ft³/s Dec. 25.

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	34	e30	e17	e19	e30	e25	138	133	119	45	17	28
2	38	e30	e17	e18	e26	e30	152	125	112	42	16	24
3	41	e30	e18	e20	e23	e40	123	123	109	37	20	24
4	40	e32	e20	e20	e20	e50	96	152	104	36	34	24
5	39	e32	e20	e19	e18	e50	94	179	100	35	26	21
6	37	e32	e19	e18	e18	e55	83	164	95	35	23	22
7	34	e34	e18	e17	e17	e65	77	138	91	34	20	27
8	31	e36	e18	e16	e17	e77	76	127	88	33	22	26
9	31	44	e17	e15	e18	e88	86	124	83	32	19	27
10	31	41	e18	e16	e20	e86	123	178	80	31	19	33
11	31	38	e18	e18	e18	e92	161	224	79	30	18	37
12	28	e34	e20	e20	e18	e96	193	198	75	29	16	32
13	28	e30	e20	e24	e20	e100	229	188	72	28	16	29
14	29	e28	e22	e30	e25	e95	305	195	78	26	14	26
15	30	e24	e22	e25	e25	e90	409	166	76	26	16	26
16	31	e20	e20	e25	e24	e86	373	171	e75	26	20	27
17	30	e16	e20	e24	e24	e82	254	171	e70	32	19	29
18	30	e14	e19	e23	e23	e83	254	163	e70	33	21	33
19	30	e13	e18	e24	e22	e84	251	155	e65	31	21	34
20	28	e14	e18	e24	e21	80	268	144	e60	28	20	33
21	28	e15	e19	e27	e23	e75	263	138	55	27	18	31
22	29	e15	e17	e30	e22	77	247	134	56	26	19	30
23	32	e15	e14	e30	e21	e76	234	134	56	23	23	29
24	34	e13	e11	e30	e21	e75	208	138	58	23	22	27
25	35	e11	e10	e30	e21	e75	191	140	65	22	21	28
26	34	e12	e16	e30	e21	e75	182	136	67	25	18	28
27	33	e14	e20	e30	e23	e74	184	136	61	28	19	29
28	31	e16	e22	e28	e23	e73	159	135	55	27	19	29
29	31	e17	e20	e25	---	e74	149	129	51	23	20	30
30	31	e17	e18	e27	---	e73	140	127	47	20	27	30
31	31	---	e19	e30	---	e88	---	124	---	18	31	---
TOTAL	1000	717	565	732	602	2289	5702	4689	2272	911	634	853
MEAN	32.3	23.9	18.2	23.6	21.5	73.8	190	151	75.7	29.4	20.5	28.4
MAX	41	44	22	30	30	100	409	224	119	45	34	37
MIN	28	11	10	15	17	25	76	123	47	18	14	21
AC-FT	1980	1420	1120	1450	1190	4540	11310	9300	4510	1810	1260	1690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)

MEAN	84.9	81.0	65.0	55.8	58.6	82.9	309	554	293	127	88.0	79.3
MAX	140	129	99.5	80.2	95.6	207	703	1057	651	264	150	134
(WY)	1972	1972	1972	1973	1972	1972	1914	1976	1975	1982	1982	1982
MIN	27.1	23.9	18.2	23.6	21.5	51.8	97.9	73.6	45.3	23.8	11.3	19.7
(WY)	2002	2003	2003	2003	2003	1970	1975	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1914 - 2003
ANNUAL TOTAL	21337	20966	
ANNUAL MEAN	58.5	57.4	156
HIGHEST ANNUAL MEAN			273
LOWEST ANNUAL MEAN			57.4
HIGHEST DAILY MEAN	465	409	2060
LOWEST DAILY MEAN	10	10	5.0
ANNUAL SEVEN-DAY MINIMUM	13	14	7.8
ANNUAL RUNOFF (AC-FT)	42320	41590	112800
10 PERCENT EXCEEDS	147	139	378
50 PERCENT EXCEEDS	31	30	84
90 PERCENT EXCEEDS	16	18	38

e Estimated

BLACKFOOT RIVER BASIN

13063000 BLACKFOOT RIVER ABOVE RESERVOIR NEAR HENRY, ID--Continued

WATER QUALITY RECORDS

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

WATER-QUALITY DATA, APRIL to JULY 2003

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Temperature, air, deg C (00020)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Dissolved oxygen, mg/L (00300)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
APR 2003											
22...	1045	232	7.0	11.2	7.5	270	10.4	44.0	7.35	1.41	3.81
JUL											
16...	1520	35	21.9	31.6	8.9	217	11.7	25.3	13.2	.65	4.32

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Selenium, water, fltrd, ug/L (01145)
APR 2003					
22...	2.40	<.17	10.1	12.4	2.6
JUL					
16...	2.23	<.2	2.3	9.6	1.1

< Less than

SELENIUM ANALYSES FROM AUTOMATIC SAMPLER

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Selenium, water, fltrd, ug/L (01145)
MAR 2003				
21...	0130	85	371	1.0
25...	0915	142	378	.9
APR				
12...	0544	199	373	1.2
14...	0543	263	316	2.4
14...	2213	345	274	2.6
16...	0039	471	249	1.8
16...	1254	364	268	1.9
18...	0116	228	299	1.9
24...	1107	202	300	3.1
26...	1819	180	318	4.1
29...	0753	152	338	5.6
MAY				
02...	1142	127	342	5.2
05...	1256	181	334	4.2
11...	0622	219	334	3.2
13...	0929	183	348	2.7
15...	1255	164	261	2.3
17...	1333	173	350	3.9
19...	1723	151	341	4.9

BLACKFOOT RIVER BASIN

13068495 BLACKFOOT RIVER BYPASS NEAR BLACKFOOT, ID

LOCATION.--Lat 43°10'15", long 112°23'16", in SE¹/₄SW¹/₄ sec.8, T.3 S., R.35 E., Bingham County, Moreland quad., Hydrologic Unit 17040207, on right bank of the Blackfoot River at the flood diversion structure, about 400 ft downstream from Interstate 15 bridges, and 2.5 mi southwest of Blackfoot.

PERIOD OF RECORD.--April 1964 to current year. (Prior to 1978, only combined monthly flows of main river and of bypass channel were published.)

GAGE.--Water-stage recorder. Datum of gage is 4,469.0 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Station equipment includes satellite telemetry. Flow regulated by Blackfoot Reservoir (sta 13065000). Diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,460 ft³/s May 5, 1974; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 122 ft³/s Oct. 11; no flow for many days.

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	21	e0.10	2.2	0.94	48	e0.20	0.00	30	0.01	0.00	0.00	0.00
2	57	e0.20	1.0	0.21	59	e0.00	0.00	19	5.7	0.00	0.00	0.00
3	89	e0.40	0.60	2.1	32	e0.20	0.00	11	25	0.00	0.00	0.00
4	82	e0.80	0.83	1.5	7.1	0.45	0.00	15	42	0.00	0.00	0.00
5	79	e1.0	0.64	1.1	e1.0	0.29	0.00	38	45	0.00	0.00	0.00
6	70	e3.0	0.55	0.24	e1.0	0.75	0.00	55	43	0.00	0.00	0.00
7	64	e5.0	0.17	0.00	e0.50	0.00	0.00	51	45	0.00	0.00	0.00
8	69	e9.0	0.30	e0.00	e1.0	0.00	0.00	8.4	53	0.00	0.00	0.00
9	90	9.9	e0.50	e0.05	e2.0	0.11	0.00	2.4	49	0.00	0.00	0.00
10	101	7.6	0.39	e0.20	e3.0	0.10	0.00	6.6	31	0.00	0.00	0.00
11	122	4.4	3.1	0.41	e2.0	13	0.00	4.0	11	0.00	0.00	0.00
12	115	4.2	2.2	5.0	e2.0	25	0.00	15	5.5	0.00	0.00	0.00
13	17	0.79	1.7	4.1	e3.0	52	0.00	6.3	0.00	0.00	0.00	0.00
14	4.5	2.6	0.36	2.8	5.2	107	0.00	0.26	0.55	0.00	0.00	0.00
15	11	1.1	0.60	1.7	5.7	96	0.00	0.09	14	0.00	0.00	0.00
16	12	0.35	0.64	0.34	3.7	38	0.08	0.00	9.8	0.00	0.00	0.00
17	5.6	0.18	0.14	e0.00	e1.0	22	1.4	0.00	6.0	0.00	0.00	0.00
18	4.5	0.69	e0.25	e0.00	e1.0	15	0.00	0.00	0.86	0.00	0.00	0.00
19	3.7	0.00	e0.30	e0.05	e0.50	7.6	0.00	0.30	6.8	0.00	0.00	0.00
20	2.9	0.00	e0.30	e0.05	e0.50	3.7	0.50	1.7	1.2	0.00	0.00	0.00
21	2.8	0.34	e0.20	e2.0	e0.50	3.6	1.8	0.00	0.00	0.00	0.00	0.00
22	2.8	0.09	e0.30	2.6	e0.30	1.8	4.9	0.00	0.00	0.00	0.00	0.00
23	2.1	0.79	e0.25	1.5	e0.20	0.92	3.6	0.00	0.00	0.00	0.00	0.00
24	2.2	e1.5	e0.20	0.37	e0.00	1.4	0.01	0.00	0.00	0.00	0.00	0.00
25	3.5	e0.50	e0.15	0.01	e0.20	0.23	0.00	0.00	0.00	0.00	0.00	0.00
26	2.6	0.00	e0.30	0.03	e0.00	0.34	2.0	0.74	0.00	0.00	0.00	0.00
27	1.3	e0.10	e0.60	0.09	e0.50	2.8	7.1	3.9	0.00	0.00	0.00	0.00
28	0.00	1.5	5.4	1.9	e0.20	1.4	14	3.0	0.00	0.00	0.00	0.00
29	0.03	1.8	5.2	e1.5	---	0.69	14	0.46	0.00	0.00	0.00	0.00
30	e0.20	1.6	e1.5	1.2	---	0.00	29	2.0	0.00	0.00	0.00	4.2
31	e0.10	---	3.9	6.3	---	0.00	---	1.1	---	0.00	0.00	---
TOTAL	1037.83	59.53	34.77	38.29	181.10	394.58	78.39	275.25	394.42	0.00	0.00	4.20
MEAN	33.5	1.98	1.12	1.24	6.47	12.7	2.61	8.88	13.1	0.000	0.000	0.14
MAX	122	9.9	5.4	6.3	59	107	29	55	53	0.00	0.00	4.2
MIN	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	2060	118	69	76	359	783	155	546	782	0.00	0.00	8.3
CAL YR 2002	TOTAL 2444.60	MEAN 6.70	MAX 175	MIN 0.00	AC-FT 4850							
WTR YR 2003	TOTAL 2498.36	MEAN 6.84	MAX 122	MIN 0.00	AC-FT 4960							

e Estimated

BLACKFOOT RIVER BASIN

13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID

LOCATION.--Lat 43°07'50", long 112°28'36", near E¹/₄ corner, sec.28, T.3 S., R.34 E., Bingham County, Moreland quad., Hydrologic Unit 17040207, Fort Hall Indian Reservation, on left bank 11 ft upstream from highway bridge, 8 mi southwest of Blackfoot, and at mile 3.4.

DRAINAGE AREA.--1,295 mi², including that of Sand Creek, flow of which is diverted to Blackfoot River through the Idaho Canal.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1913 to current year (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1217: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,420 ft above NGVD of 1929, from river-profile survey. Prior to May 8, 1926, nonrecording gage, and May 8, 1926 to June 25, 1937, water-stage recorder at site 0.5 mi upstream at different datum. June 26, 1937 to Aug. 16, 1963, water-stage recorder at site 175 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges and discharges below 10 ft³/s, which are poor. Station equipment includes satellite telemetry. Flow regulated by Blackfoot Reservoir. Diversions above station for irrigation of about 28,000 acres below and about 32,000 acres above station, of which about 900 acres are irrigated by withdrawals from ground water (1966 determination). Part of flow is supplied by waste water from Snake River canals. Diversions to bypass channel 5.5 mi upstream from station began in April 1964. For records and statistics of combined discharges, see station 13068501.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,710 ft³/s Feb. 11, 1962, gage height, 7.68 ft, prior to Blackfoot River Bypass channel diversion. Since 1964, river only: maximum discharge, 740 ft³/s June 12, 1984, gage height, 5.53 ft; maximum gage height, 6.77 ft, June 16, 1997, (backwater from the Snake River); no flow at times some years. Combined flow since 1913: maximum discharge, 2,130 ft³/s May 5, 1974; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--River only: maximum discharge, 336 ft³/s Oct. 11, gage height, 3.70 ft; no flow many days. Combined flow with Bypass channel: maximum daily discharge, 339 ft³/s Oct. 12; no flow many days.

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	101	e55	72	73	129	e65	57	101	3.3	0.00	3.9	20
2	135	e60	70	67	143	e60	61	91	8.5	0.00	7.5	10
3	173	e65	66	72	121	e70	63	77	43	0.00	8.6	0.00
4	179	e70	74	74	e80	e65	63	79	41	0.00	39	0.00
5	174	e75	72	74	e60	e60	59	105	30	0.00	65	0.00
6	167	86	72	68	e55	54	58	113	37	1.3	37	14
7	156	92	61	e60	e50	64	59	113	41	2.4	17	0.00
8	156	103	54	e55	e55	62	59	65	48	0.00	12	0.00
9	182	103	e50	e50	e60	61	55	26	66	1.5	22	0.00
10	193	98	48	e60	e70	64	46	44	54	4.8	5.9	0.00
11	171	89	75	e70	e60	85	34	55	24	1.2	25	9.2
12	224	87	80	83	e60	110	30	77	9.4	5.8	7.0	2.2
13	118	76	69	82	e70	128	9.8	36	2.7	0.00	0.00	18
14	87	79	72	78	e80	171	16	19	10	0.00	0.36	37
15	100	75	73	75	86	172	23	5.8	27	0.00	e0.20	7.6
16	92	68	73	70	82	122	31	0.42	26	0.13	3.8	1.3
17	67	69	67	e50	e65	106	51	0.08	8.7	0.00	0.00	47
18	75	68	e60	e50	e65	98	5.2	0.00	3.0	0.93	13	34
19	64	65	e65	e55	e65	86	4.4	6.5	4.0	0.00	0.00	15
20	84	67	e70	e60	e70	77	12	7.1	0.20	0.00	0.00	7.4
21	89	69	e70	e65	e65	77	36	7.8	0.00	6.3	0.23	33
22	74	67	e60	e70	e60	73	66	7.2	0.64	0.15	e1.0	13
23	60	72	e40	75	e50	68	47	6.5	14	0.00	e20	30
24	61	74	e35	72	e40	71	27	2.3	13	0.00	e30	39
25	62	72	e40	66	e50	68	15	0.77	19	0.00	e5.0	14
26	74	e60	e50	67	e60	65	30	6.5	25	0.09	2.2	7.3
27	69	e50	e70	67	e65	73	72	5.9	18	5.0	4.5	0.95
28	62	63	84	e70	e60	70	68	3.1	10	6.6	17	1.6
29	60	69	84	e65	---	68	91	5.4	6.4	1.2	5.2	58
30	e55	68	e70	e65	---	62	106	4.7	5.4	0.00	8.9	156
31	e50	---	78	77	---	59	---	4.2	---	0.11	1.6	---
TOTAL	3414	2214	2024	2085	1976	2534	1354.4	1075.27	598.24	37.51	362.89	575.55
MEAN	110	73.8	65.3	67.3	70.6	81.7	45.1	34.7	19.9	1.21	11.7	19.2
MAX	224	103	84	83	143	172	106	113	66	6.6	65	156
MIN	50	50	35	50	40	54	4.4	0.00	0.00	0.00	0.00	0.00
AC-FT	6770	4390	4010	4140	3920	5030	2690	2130	1190	74	720	1140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

	200	172	111	106	119	154	194	228	179	114	130	130
MEAN	200	172	111	106	119	154	194	228	179	114	130	130
MAX	314	318	314	302	345	386	428	587	469	288	323	263
(WY)	1977	1984	1984	1985	1997	1986	1986	1983	1984	1984	1984	1971
MIN	37.2	45.1	22.3	20.1	21.9	57.5	45.1	34.7	19.9	1.21	0.26	1.11
(WY)	1993	1993	1993	1993	1993	1967	2003	2003	2003	2003	1992	1992

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1964 - 2003

ANNUAL TOTAL	21523.71	18250.86	
ANNUAL MEAN	59.0	50.0	153
HIGHEST ANNUAL MEAN			298
LOWEST ANNUAL MEAN			48.7
HIGHEST DAILY MEAN	224	Oct 12	733
LOWEST DAILY MEAN	0.00	Jul 6	0.00
ANNUAL SEVEN-DAY MINIMUM	0.89	Aug 20	0.15
ANNUAL RUNOFF (AC-FT)	42690	36200	110900
10 PERCENT EXCEEDS	106	91	300
50 PERCENT EXCEEDS	60	58	125
90 PERCENT EXCEEDS	3.2	0.22	43

a Monthly and Summary Statistics for period since the diversion of water began into Blackfoot River Bypass channel (Apr. 1964).
e Estimated

BLACKFOOT RIVER BASIN

13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1968-1970, 1972-1981, July 1989 to November 2002, July to September 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May to September 1996, May to September 1999, April to September 2001, December 2001 to November 2002 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 34.1 °C July 12, 2002; minimum, 0.0 °C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC col/100 mL (31625)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
JUL	18...	0840	5.0	351	8.0	24.2	9.7	1.6	9.9	101	510	--	--	--
AUG	15...	0945	4.5	322	8.6	27.0	22.9	1.1	7.3	100	S4	--	--	--
SEP	18...	1225	22	345	8.6	16.2	11.1	1.2	11.8	125	S31	150	37.8	13.8

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Potassium, water, fltrd, mg/L (00935)	Bicarbonate, wat unfltrd fixed end pt, field, mg/L (00440)	Carbonate, wat unfltrd fixed end pt, field, mg/L (00445)	ANC, wat unfltrd fixed end pt, field, mg/L as CaCO3 (00410)	Sulfate, water, fltrd, mg/L (00945)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Ammonia, water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	
JUL	18...	--	--	--	--	--	--	--	--	--	<.015	.38	<.022	
AUG	15...	--	--	--	--	--	--	--	--	--	.133	.36	.038	
SEP	18...	13.8	16	2.49	130	.0	120	30.9	11.8	.8	12.7	<.015	.21	<.022

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	
JUL	18...	<.007	.017	2	.03
AUG	15...	<.007	.012	2	.02
SEP	18...	<.007	.010	1	.06

< Less than
S Most probable value

BLACKFOOT RIVER BASIN

13068501 COMBINATION BLACKFOOT RIVER AND BYPASS CHANNEL NEAR BLACKFOOT, ID

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	122	55	74	74	177	65	57	131	3.3	0.00	3.9	20
2	192	60	71	67	202	60	61	110	14	0.00	7.5	10
3	262	65	67	74	153	70	63	88	68	0.00	8.6	0.00
4	261	71	75	76	87	65	63	94	83	0.00	39	0.00
5	253	76	73	75	61	60	59	143	75	0.00	65	0.00
6	237	89	73	68	56	55	58	168	80	1.3	37	14
7	220	97	61	60	50	64	59	164	86	2.4	17	0.00
8	225	112	54	55	56	62	59	73	101	0.00	12	0.00
9	272	113	50	50	62	61	55	28	115	1.5	22	0.00
10	294	106	48	60	73	64	46	51	85	4.8	5.9	0.00
11	293	93	78	70	62	98	34	59	35	1.2	25	9.2
12	339	91	82	88	62	135	30	92	15	5.8	7.0	2.2
13	135	77	71	86	73	180	9.8	42	2.7	0.00	0.00	18
14	92	82	72	81	85	278	16	19	11	0.00	0.36	37
15	111	76	74	77	92	268	23	5.9	41	0.00	0.20	7.6
16	104	68	74	70	86	160	31	0.42	36	0.13	3.8	1.3
17	73	69	67	50	66	128	52	0.08	15	0.00	0.00	47
18	80	69	60	50	66	113	5.2	0.00	3.9	0.93	13	34
19	68	65	65	55	66	94	4.4	6.8	11	0.00	0.00	15
20	87	67	70	60	70	81	12	8.8	1.4	0.00	0.00	7.4
21	92	69	70	67	66	81	38	7.8	0.00	6.3	0.23	33
22	77	67	60	73	60	75	71	7.2	0.64	0.15	1.0	13
23	62	73	40	76	50	69	51	6.5	14	0.00	20	30
24	63	76	35	72	40	72	27	2.3	13	0.00	30	39
25	66	72	40	66	50	68	15	0.77	19	0.00	5.0	14
26	77	60	50	67	60	65	32	7.2	25	0.09	2.2	7.3
27	70	50	71	67	66	76	79	9.8	18	5.0	4.5	0.95
28	62	64	89	72	60	71	82	6.1	10	6.6	17	1.6
29	60	71	89	66	---	69	105	5.9	6.4	1.2	5.2	58
30	55	70	72	66	---	62	135	6.7	5.4	0.00	8.9	160
31	50	---	82	83	---	59	---	5.3	---	0.11	1.6	---
TOTAL	4454	2273	2057	2121	2157	2928	1432.4	1349.57	993.74	37.51	362.89	579.55
MEAN	144	75.8	66.4	68.4	77.0	94.5	47.7	43.5	33.1	1.21	11.7	19.3
MAX	339	113	89	88	202	278	135	168	115	6.6	65	160
MIN	50	50	35	50	40	55	4.4	0.00	0.00	0.00	0.00	0.00
AC-FT	8830	4510	4080	4210	4280	5810	2840	2680	1970	74	720	1150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	2002	2003	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	272	271	161	137	158	207	320	372	232	118	146	138																																																																															
MAX	674	789	825	793	937	956	1085	1579	1411	635	834	444																																																																															
(WY)	1984	1984	1984	1984	1997	1986	1986	1983	1984	1984	1984	1916																																																																															
MIN	0.000	27.0	22.3	17.7	21.6	31.4	47.7	0.77	0.000	0.000	0.000	0.000																																																																															
(WY)	1935	1935	1993	1932	1932	1932	2003	1934	1934	1934	1934	1934																																																																															

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1913 - 2003	
ANNUAL TOTAL	23959.71		20745.66			
ANNUAL MEAN	65.6		56.8		214	
HIGHEST ANNUAL MEAN					751	
LOWEST ANNUAL MEAN					41.1	
HIGHEST DAILY MEAN	390	May 23	339	Oct 12	2130	May 5 1974
LOWEST DAILY MEAN	0.00	Jul 6	0.00	May 18	0.00	Jun 18 1919
ANNUAL SEVEN-DAY MINIMUM	0.89	Aug 20	0.15	Jul 13	0.00	Jun 23 1919
ANNUAL RUNOFF (AC-FT)	47520		41150		154800	
10 PERCENT EXCEEDS	117		104		507	
50 PERCENT EXCEEDS	60		60		132	
90 PERCENT EXCEEDS	3.2		0.31		19	

SNAKE RIVER MAIN STEM

13069500 SNAKE RIVER NEAR BLACKFOOT, ID

LOCATION.--Lat 43°07'31", long 112°31'06", in SE¹/₄SE¹/₄ sec.30, T.3 S., R.34 E., Bingham County, Rockford quad., Hydrologic Unit 17040206, on right bank 0.3 mi downstream from highway bridge, 0.7 mi downstream from Blackfoot River, 10 mi southwest of Blackfoot, and at mile 750.1.

DRAINAGE AREA.--11,310 mi², approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--June 1910 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "at Clough ranch, near Blackfoot", 1924-45.

GAGE.--Water-stage recorder. Datum of gage is 4,399.83 ft above NGVD of 1929. Prior to July 6, 1913, nonrecording gages; July 6, 1913 to Aug. 19, 1962, water-stage recorder at site 0.1 mi upstream at datum 1.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Flow regulated by Jackson Lake, Palisades Reservoir, Henrys Lake (see sta 13039000), Grassy Lake, Island Park Reservoir, and Blackfoot Reservoir (see sta 13065000), having a combined capacity of 2,883,000 acre-ft. Diversions above station for irrigation of about 121,000 acres below and about 832,000 acres above station, 155,000 acres of which are irrigated by withdrawals from ground water (1966 determination). Considerable water leaks above the station into the Snake River Plain aquifer.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,500 ft³/s June 7, 1976, gage height, 15.44 ft, result of Teton Dam failure; maximum discharge excluding 1976, 46,200 ft³/s June 18, 1918, gage height, 14.80 ft, site and datum then in use; minimum, 111 ft³/s Nov. 10, 1934, gage height, 0.80 ft, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Late in summer of 1905 there was no flow in Snake River for a distance of 10 mi in vicinity of Blackfoot. Aug. 9, 1905, discharge of Snake River just below mouth of Blackfoot was 39 ft³/s, supplied by ground-water inflow a short distance upstream.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,200 ft³/s July 29; minimum daily, 206 ft³/s Apr. 12.

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	1990	2100	2000	2000	1970	1740	1570	1510	2990	3400	4220	5770
2	2690	2020	1960	1900	2390	1650	1610	1350	3380	2690	3550	6070
3	2300	2060	e1940	1980	2350	1630	1400	1370	3400	2400	3680	5940
4	1920	2050	e1960	1880	2200	1670	1330	1430	3140	2620	3740	5190
5	1550	2020	e1920	1860	1980	1680	987	1700	2680	2600	3910	4810
6	1560	2030	1900	1750	1850	1610	877	2010	2190	2620	3920	4300
7	1590	2090	1910	1780	1640	1630	791	2030	1960	2640	3880	4180
8	1560	2110	1870	1670	1500	1570	699	1700	1880	2660	3790	3910
9	1540	2170	1840	1480	1440	1680	653	1330	2060	2800	3870	3100
10	1460	2220	1820	1330	1640	1580	510	944	1910	2860	4000	3120
11	1380	2220	1800	e1580	1830	1670	290	990	1640	3020	4140	3130
12	1840	2250	1860	1800	1850	1690	206	1270	1560	3080	4100	3080
13	1890	2210	1850	1870	1860	1880	284	1180	1660	3200	3990	2820
14	1730	2060	1890	1910	1810	2020	629	1020	1980	3570	3910	2740
15	1800	2060	1870	1900	1860	2180	1080	1050	2650	3800	4310	2750
16	1960	2070	1850	e1780	1910	2210	1180	1300	2930	3990	4630	2250
17	1960	2030	1890	1760	1890	2140	1210	1440	2810	4120	4060	2170
18	1840	2000	1900	1680	1860	2110	1040	1670	2950	4150	3730	2600
19	1850	1990	1810	1530	1780	1940	860	2070	3050	4370	4030	3160
20	1780	1960	1890	1530	1750	1870	794	1780	3310	4800	4110	3090
21	1740	1970	1680	1760	1700	1780	1210	1090	3580	5410	4100	2940
22	1760	1980	1830	1870	1670	1730	1140	489	3870	5460	4240	2820
23	1750	1980	1800	1720	1670	1690	1150	249	4100	5650	4390	2680
24	1570	2020	1730	1780	1690	1710	1340	557	4040	5800	4530	2570
25	1570	2100	1400	1790	1400	1740	1420	1390	3940	6000	4750	2340
26	1600	2010	1170	1700	1470	1790	1440	2440	3820	6390	4920	1820
27	1580	1850	1520	1730	1560	1830	1610	2600	3600	6630	4850	1650
28	1630	1910	1780	1700	1680	1800	1850	2720	3540	6990	4970	1570
29	1680	1920	1980	1900	---	1780	1900	2640	3670	7200	5090	1520
30	1770	2040	1690	2080	---	1710	1640	2660	3720	6700	5310	1520
31	1910	---	2180	1960	---	1630	---	2610	---	5490	5610	---
TOTAL	54750	61500	56490	54960	50200	55340	32700	48589	88010	133110	132330	95610
MEAN	1766	2050	1822	1773	1793	1785	1090	1567	2934	4294	4269	3187
MAX	2690	2250	2180	2080	2390	2210	1900	2720	4100	7200	5610	6070
MIN	1380	1850	1170	1330	1400	1570	206	249	1560	2400	3550	1520
AC-FT	108600	122000	112000	109000	99570	109800	64860	96380	174600	264000	262500	189600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2003, BY WATER YEAR (WY)												
MEAN	2776	3565	3389	3132	3370	4185	6748	10460	10950	4619	2564	2225
MAX	9682	7852	8227	8026	11810	15410	19200	25360	31130	18480	7965	9173
(WY)	1972	1984	1984	1984	1997	1997	1971	1928	1997	1917	1912	1912
MIN	165	175	1125	975	1028	1192	330	395	325	214	193	147
(WY)	1935	1935	1935	1935	1932	1934	1934	1934	1931	1931	1924	1934

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1910 - 2003
ANNUAL TOTAL	760861	863589	
ANNUAL MEAN	2085	2366	4813
HIGHEST ANNUAL MEAN			11350
LOWEST ANNUAL MEAN			983
HIGHEST DAILY MEAN	5790	Sep 9	7200
LOWEST DAILY MEAN	637	May 11	206
ANNUAL SEVEN-DAY MINIMUM	894	May 10	467
ANNUAL RUNOFF (AC-FT)	1509000	1713000	3487000
10 PERCENT EXCEEDS	3450	4110	11200
50 PERCENT EXCEEDS	1800	1910	3180
90 PERCENT EXCEEDS	1300	1360	1100

e Estimated

PORTNEUF RIVER BASIN

13073000 PORTNEUF RIVER AT TOPAZ, ID

LOCATION.--Lat 42°37'32", long 112°05'17", in SE¼ sec.23, T.9 S., R.37 E., Bannock County, Haystack Mountain quad., Hydrologic Unit 17040208, on right bank 200 ft upstream from Bob Smith Creek, 800 ft downstream from Topaz siding, 1.5 mi upstream from diversion dam of Portneuf-Marsh Valley Canal Co., 4 mi west of Lava Hot Springs, and at mile 55.5.

DRAINAGE AREA.--570 mi², approximately (includes that of Bob Smith Creek). Mean elevation, 6,080 ft.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1913 to September 1915, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1920-22, 1924-25(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,918.00 ft above NGVD of 1929. Prior to July 20, 1919, nonrecording gage at site 0.3 mi downstream at datum 3.0 ft lower. July 20, 1919 to June 22, 1954, nonrecording gage at site 0.3 mi downstream at datum 2.00 ft lower than present datum.

REMARKS.--No estimated daily discharges. Records fair. Station equipment includes satellite telemetry. Flow regulated by Chesterfield Reservoir, capacity 24,000 acre-ft, and Twenty-Four Mile Reservoir on Twenty-Four Mile Creek, capacity 685 acre-ft. Diversions above station for irrigation of about 29,000 acres, of which about 7,400 acres are irrigated by withdrawals from ground water (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft³/s Feb. 1, 1963, gage height, 8.22 ft, result of highway fill failure 2 mi upstream; maximum discharge excluding highway fill failure events of 1962 and 1963, 1,740 ft³/s Dec. 23, 1964, gage height, 6.00 ft; minimum, 33 ft³/s Sept. 25, 1994, gage height, 2.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 239 ft³/s May 26; minimum, 37 ft³/s Sept. 22, gage height, 2.16 ft.

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	68	90	98	107	177	115	113	84	195	80	83	80
2	71	90	98	103	157	111	114	79	193	78	86	79
3	70	90	98	105	130	115	114	83	196	78	97	79
4	70	89	103	103	131	116	110	85	191	78	106	79
5	70	89	104	104	116	115	111	83	195	77	100	80
6	69	90	101	101	115	113	110	84	190	77	97	82
7	70	95	101	99	109	117	108	94	189	77	97	84
8	69	102	100	98	111	117	108	116	194	76	97	86
9	70	113	97	98	111	118	107	126	200	74	97	85
10	70	105	99	101	112	120	108	127	199	76	94	90
11	70	103	102	105	111	126	110	122	193	74	93	82
12	69	102	104	104	111	126	114	125	185	67	86	71
13	70	101	102	103	115	127	119	124	190	75	83	62
14	70	101	104	107	123	128	129	124	175	68	81	56
15	70	100	107	105	125	133	137	158	162	71	80	56
16	70	99	106	102	132	144	127	175	125	70	84	57
17	70	99	113	103	125	136	118	182	93	72	82	47
18	70	98	108	99	127	125	120	184	84	73	80	47
19	70	97	104	100	121	120	107	187	78	74	80	48
20	71	98	101	102	121	118	97	189	79	75	79	48
21	73	98	105	104	121	118	101	189	84	78	81	48
22	75	99	106	103	122	117	104	196	80	78	85	46
23	79	100	102	111	119	119	105	209	80	75	84	46
24	77	104	96	111	112	118	95	222	81	76	82	45
25	81	97	99	109	115	115	90	233	82	82	82	43
26	87	94	103	113	113	120	92	239	81	89	82	42
27	91	95	104	120	113	120	91	226	80	86	82	42
28	93	97	104	133	113	119	86	221	79	85	81	41
29	95	97	105	132	---	113	85	214	78	87	82	41
30	95	97	104	140	---	111	86	199	76	87	83	43
31	94	---	109	174	---	111	---	191	---	87	82	---
TOTAL	2337	2929	3187	3399	3408	3721	3216	4870	4107	2400	2688	1835
MEAN	75.4	97.6	103	110	122	120	107	157	137	77.4	86.7	61.2
MAX	95	113	113	174	177	144	137	239	200	89	106	90
MIN	68	89	96	98	109	111	85	79	76	67	79	41
AC-FT	4640	5810	6320	6740	6760	7380	6380	9660	8150	4760	5330	3640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	139	152	152	152	170	205	263	344	267	201	173	146																																																																															
MAX	284	283	279	271	484	475	589	875	735	347	331	361																																																																															
(WY)	1985	1985	1985	1985	1962	1972	1986	1984	1984	1984	1986	1986																																																																															
MIN	55.7	84.9	93.8	93.3	91.0	116	103	127	97.4	77.4	74.5	61.2																																																																															
(WY)	1993	1993	1993	1993	1993	1964	1992	1961	1934	2003	1992	2003																																																																															

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1913 - 2003
ANNUAL TOTAL	46486	38097	
ANNUAL MEAN	127	104	197
HIGHEST ANNUAL MEAN			362
LOWEST ANNUAL MEAN			104
HIGHEST DAILY MEAN	300	239	3250
LOWEST DAILY MEAN	63	41	41
ANNUAL SEVEN-DAY MINIMUM	66	42	42
ANNUAL RUNOFF (AC-FT)	92200	75570	142700
10 PERCENT EXCEEDS	201	142	297
50 PERCENT EXCEEDS	104	100	173
90 PERCENT EXCEEDS	77	70	108

PORTNEUF RIVER BASIN

13073000 PORTNEUF RIVER AT TOPAZ, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1992 to September 1996, April to September 1998, April to September 2000, December 2001 to November 2002 , July to September 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June to September 1993, June to September 1994, May to September 1996, April to September 1998, April to September 2000, December 2001 to November 2002, June to September 2003 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.7 °C Aug. 1, 2003; minimum, 0.1 °C Dec. 25-26, 2001, Jan. 30, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.7 °C Aug. 1; minimum, 13.9 °C Sept. 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUL 17...	0815	74	876	8.0	24.5	21.0	4.0	7.6	102	S312	--	--	--
AUG 12...	1410	83	885	8.2	36.1	22.8	2.6	9.0	126	86	--	--	--
SEP 19...	0900	50	945	8.5	9.8	12.4	1.1	9.3	104	103	380	84.6	41.0

Date	Time	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Potassium, water, fltrd, mg/L (00935)	Bicarbonate, wat unfltrd fixed end pt, field, mg/L (00440)	Carbonate, wat unfltrd fixed end pt, field, mg/L (00445)	ANC, wat unfltrd fixed end pt, field, mg/L as CaCO3 (00410)	Sulfate, water, fltrd, mg/L (00945)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Ammonia, water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	.035	.27	.094
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	E.012	.26	.149
SEP 19...	53.3	23	15.0	392	18	357	54.3	62.0	.2	24.1	E.010	.14	.350	

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
JUL 17...	.007	.030	56	11
AUG 12...	<.007	.030	49	11
SEP 19...	<.007	.012	6	.81

< Less than
 E Estimated value
 S Most probable value

PORTNEUF RIVER BASIN
13073000 PORTNEUF RIVER AT TOPAZ, ID--Continued

Temperature, water, degrees Celsius
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.0	18.4	19.7	24.5	19.4	22.2	25.7	21.5	23.7	20.5	18.6	19.6
2	20.3	17.7	18.9	24.5	19.0	21.9	25.2	21.6	23.6	20.5	19.0	19.8
3	19.4	17.4	18.4	24.4	19.0	21.9	24.3	21.8	22.8	21.1	18.7	19.7
4	19.3	17.3	18.1	23.8	19.4	21.8	24.5	20.3	22.3	21.3	19.7	20.5
5	18.9	16.9	17.8	23.7	19.5	21.6	24.4	19.8	22.3	21.3	19.8	20.5
6	18.7	17.1	17.8	23.8	20.0	21.8	24.3	20.5	22.3	21.1	19.7	20.5
7	18.7	17.1	17.9	24.2	20.3	22.2	23.6	20.2	22.0	21.0	19.2	20.1
8	18.7	17.3	17.9	24.1	20.3	22.0	23.2	20.2	21.4	20.6	19.0	19.5
9	19.8	17.7	18.6	23.8	19.8	21.5	23.8	20.2	21.9	19.1	17.4	18.1
10	20.2	18.4	19.2	24.4	20.2	22.2	24.5	20.7	22.6	18.6	16.9	17.4
11	20.0	18.4	19.2	24.4	20.8	22.6	25.0	22.0	23.5	17.9	16.0	16.8
12	19.8	18.2	19.1	24.5	20.8	22.8	25.0	21.5	23.0	17.9	16.6	17.2
13	19.8	18.4	18.9	24.5	21.3	22.8	24.5	20.8	22.6	17.3	15.7	16.5
14	20.3	17.7	18.7	24.4	21.1	22.7	24.4	21.0	22.9	17.1	15.5	16.3
15	20.7	18.4	19.5	24.4	21.3	22.9	24.4	21.8	23.3	17.3	15.8	16.6
16	21.8	19.2	20.2	24.4	21.3	22.7	24.1	21.3	22.6	17.3	16.1	16.6
17	22.6	19.2	20.8	24.2	21.8	22.8	23.4	20.5	21.9	16.1	14.6	15.1
18	22.6	19.7	21.1	24.4	21.8	23.2	22.8	19.7	21.2	15.5	13.9	14.6
19	22.3	20.0	21.2	24.4	22.1	23.2	22.8	20.2	21.5	15.8	14.6	15.2
20	21.8	19.5	20.4	24.3	22.6	23.5	23.1	20.5	21.8	16.3	14.9	15.6
21	21.0	17.7	19.2	24.4	23.0	23.7	23.1	21.1	22.1	16.5	15.2	15.8
22	19.8	16.2	18.1	24.5	22.8	23.7	22.6	21.1	21.9	16.8	15.2	16.0
23	18.6	15.2	16.8	24.5	23.0	23.8	23.0	21.0	21.9	16.8	15.7	16.3
24	17.6	15.8	16.5	24.4	23.3	23.9	23.0	20.8	21.8	16.9	15.8	16.4
25	19.5	14.6	16.8	24.5	23.7	24.1	22.6	20.5	21.6	16.9	15.8	16.4
26	22.1	15.5	18.6	24.2	22.8	23.4	22.6	20.5	21.5	17.3	16.2	16.7
27	22.8	16.8	19.9	24.0	22.6	23.3	22.3	20.3	21.4	17.7	16.6	17.2
28	23.8	17.7	20.8	24.2	22.5	23.3	22.3	20.3	21.3	17.7	16.8	17.4
29	25.0	18.2	21.6	24.2	22.6	23.5	22.1	20.0	20.7	18.1	17.1	17.6
30	24.9	19.4	22.4	24.0	22.1	23.1	20.1	18.9	19.5	18.2	17.3	17.8
31	---	---	---	25.0	22.6	23.9	20.5	18.2	19.3	---	---	---
MONTH	25.0	14.6	19.1	25.0	19.0	22.8	25.7	18.2	22.0	21.3	13.9	17.5

PORTNEUF RIVER BASIN

13075000 MARSH CREEK NEAR MCCAMMON, ID

LOCATION.--Lat 42°37'48", long 112°13'33", in SW¼NE¼NE¼ sec.22, T.9 S., R.36 E., Bannock County, McCammon quad., Hydrologic Unit 17040208, 70 ft upstream from county road crossing, 2 mi southwest of McCammon, and at mile 11.0.

DRAINAGE AREA.--353 mi². Mean elevation, 5,630 ft.

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WDR ID-1980-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,610 ft above NGVD of 1929, by barometer. Prior to July 14, 1965, nonrecording gage 10 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 19,000 acres, of which about 5,500 acres are by withdrawals from ground water and about 5,000 acres are by diversions into Marsh Creek basin from Portneuf River through the Marsh Valley Canal (1966 determination). Part of Birch Creek (tributary to Marsh Creek) is diverted into Devil Creek in Bear River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s Feb. 12, 1962, gage height, 13.25 ft; minimum daily, 7.2 ft³/s June 1, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 59 ft³/s Mar. 17, May 10-11; minimum daily, 7.2 ft³/s June 1.

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	48	48	43	46	54	49	39	38	7.2	18	9.6	19
2	49	46	43	45	57	46	40	37	7.4	19	11	16
3	49	49	43	46	49	47	41	40	7.9	20	12	16
4	51	48	43	46	49	47	40	45	8.2	19	14	16
5	50	47	43	46	46	47	41	45	7.8	18	14	17
6	49	48	43	46	44	49	42	41	8.0	20	12	18
7	47	47	43	45	42	47	42	41	9.4	22	12	18
8	44	49	43	44	43	48	42	41	8.3	21	24	21
9	45	52	43	36	42	47	37	44	8.4	17	16	17
10	44	51	42	37	42	47	34	59	8.2	14	16	19
11	45	50	42	42	45	47	36	59	9.3	14	15	22
12	42	49	43	45	45	47	36	56	9.3	11	16	22
13	45	48	44	47	47	47	32	52	7.8	10	16	32
14	45	47	43	49	52	47	32	48	8.8	10	16	25
15	45	47	45	50	57	49	35	42	10	11	15	22
16	45	46	45	47	57	58	26	39	11	11	16	21
17	45	46	47	51	58	59	24	36	11	11	16	20
18	45	45	47	46	56	51	30	33	11	12	17	22
19	45	45	46	44	54	48	43	30	12	12	15	23
20	45	45	45	44	52	48	38	28	12	10	14	22
21	45	44	45	45	52	43	35	26	11	9.1	10	23
22	45	45	45	47	51	37	38	24	9.5	14	14	24
23	46	43	44	53	50	38	46	23	10	11	18	26
24	48	44	40	53	46	38	40	20	12	13	16	26
25	48	43	43	51	47	38	38	18	14	15	17	25
26	48	42	43	54	49	39	41	17	16	16	16	25
27	49	42	43	55	50	42	39	15	15	13	15	26
28	49	44	44	56	49	34	41	12	14	13	14	26
29	49	43	45	51	---	33	40	9.6	14	13	14	27
30	49	43	45	52	---	34	40	8.3	16	12	17	30
31	49	---	46	58	---	38	---	8.2	---	12	19	---
TOTAL	1448	1386	1359	1477	1385	1389	1128	1035.1	314.5	441.1	466.6	666
MEAN	46.7	46.2	43.8	47.6	49.5	44.8	37.6	33.4	10.5	14.2	15.1	22.2
MAX	51	52	47	58	58	59	46	59	16	22	24	32
MIN	42	42	40	36	42	33	24	8.2	7.2	9.1	9.6	16
AC-FT	2870	2750	2700	2930	2750	2760	2240	2050	624	875	926	1320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2003, BY WATER YEAR (WY)

MEAN	78.7	81.3	78.9	82.1	105	116	108	103	77.8	52.9	55.3	69.6
MAX	152	158	143	224	329	196	256	309	238	117	124	129
(WY)	1985	1984	1984	1980	1962	1986	1985	1984	1984	1984	1983	1984
MIN	42.7	46.2	43.8	45.8	41.1	44.8	37.6	26.6	10.5	14.2	15.1	22.2
(WY)	1993	2003	2003	2002	2002	2003	2003	1992	2003	2003	2003	2003

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1955 - 2003	
ANNUAL TOTAL	16115		12495.3			
ANNUAL MEAN	44.2		34.2		83.9	
HIGHEST ANNUAL MEAN					166	
LOWEST ANNUAL MEAN					34.2	
HIGHEST DAILY MEAN	114	Mar 13	59	Mar 17	1100	Feb 12 1962
LOWEST DAILY MEAN	20	Jun 1	7.2	Jun 1	7.2	Jun 1 2003
ANNUAL SEVEN-DAY MINIMUM	21	May 31	7.8	May 31	7.8	May 31 2003
ANNUAL RUNOFF (AC-FT)	31960		24780		60800	
10 PERCENT EXCEEDS	59		49		136	
50 PERCENT EXCEEDS	44		42		72	
90 PERCENT EXCEEDS	29		12		41	

PORTNEUF RIVER BASIN

13075500 PORTNEUF RIVER AT POCATELLO, ID

LOCATION.--Lat 42°52'18", long 112°28'05", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.27, T.6 S., R.34 E., Bannock County, Pocatello South quad., Hydrologic Unit 17040208, on left bank 1,400 ft downstream from Carson Street Bridge at Pocatello, 1.2 mi upstream from Pocatello Creek, and at mile 16.8.

DRAINAGE AREA.--1,250 mi², approximately. Mean elevation, 5,850 ft.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1897, March 1898 to October 1899, August 1911 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,418.41 ft above NGVD of 1929 (U.S. Army Corps of Engineers datum). May 18, 1897 to Oct. 14, 1899, nonrecording gage at site 1.6 mi upstream at different datum. Aug. 31, 1911 to May 13, 1927, and Oct. 13, 1927 to June 13, 1928, nonrecording gage 0.3 mi upstream at different datum. May 14 to Oct. 12, 1927, water-stage recorder near present site at different datum. June 14, 1928 to Sept. 28, 1950, water-stage recorder near Carson Street Bridge, 0.3 mi upstream at same datum as former nonrecording gages at this site. Sept. 29, 1950 to May 20, 1968, water-stage recorder at Fremont Street site, 1.0 mi upstream at datum 18.57 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Flow regulated by Portneuf Reservoir, an earthen dam completed in 1912 and raised 7 ft in 1950; capacity, 23,695 acre-ft (capacity prior to 1950, 16,410 acre-ft); and Chesterfield Reservoir, capacity, 685 acre-ft. Diversions above station for irrigation of about 55,000 acres, of which about 13,000 acres are irrigated by withdrawals from ground water (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s Feb. 14, 1962, gage height, 11.35 ft, site and datum then in use; maximum gage height, 14.56 ft, Jan. 21, 1987, backwater from ice; minimum daily, 0.23 ft³/s July 19, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 279 ft³/s Feb. 1; minimum daily, 5.7 ft³/s July 21, 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	63	166	172	188	279	189	197	107	42	28	13	18
2	64	162	172	181	270	187	203	102	39	23	12	24
3	77	164	172	178	242	183	209	107	38	18	18	27
4	108	168	172	180	217	188	199	120	37	18	25	25
5	110	169	175	179	203	185	200	127	38	15	30	23
6	109	169	176	178	e190	183	203	121	36	14	30	22
7	107	175	173	171	e180	188	206	114	36	13	24	22
8	121	198	173	166	e170	186	201	108	32	13	20	25
9	127	202	171	e160	e180	185	197	116	30	16	21	32
10	127	204	168	e160	e180	188	192	127	27	14	26	38
11	128	196	174	e170	186	190	199	147	26	8.9	16	34
12	128	189	178	174	186	195	205	144	26	8.8	12	36
13	127	185	179	180	191	196	212	140	26	9.1	11	40
14	129	184	178	180	203	205	218	135	25	9.1	12	43
15	131	181	182	185	221	217	237	133	26	8.5	13	47
16	138	179	190	182	223	238	237	134	26	6.4	15	37
17	137	178	193	176	223	248	204	140	23	7.1	16	36
18	138	176	197	177	214	229	164	140	20	6.8	19	39
19	135	174	188	171	212	213	154	135	18	6.4	20	37
20	136	172	181	171	202	206	171	116	18	5.8	20	38
21	138	173	181	176	202	203	135	106	22	5.7	16	35
22	140	173	187	180	202	198	127	99	24	5.7	20	37
23	143	175	182	187	199	192	117	100	27	6.6	22	35
24	147	176	167	200	187	198	122	97	30	7.6	27	37
25	152	174	e160	197	185	192	111	95	32	6.4	33	37
26	155	168	e160	194	187	198	115	93	33	7.3	23	36
27	157	166	e170	e190	189	207	118	87	32	9.3	19	32
28	160	170	178	e190	191	208	113	60	33	12	16	29
29	164	171	180	e200	---	191	115	60	32	11	19	30
30	170	171	179	217	---	186	110	52	30	10	19	29
31	170	---	185	239	---	188	---	45	---	10	19	---
TOTAL	4036	5308	5493	5677	5714	6160	5191	3407	884	340.5	606	980
MEAN	130	177	177	183	204	199	173	110	29.5	11.0	19.5	32.7
MAX	170	204	197	239	279	248	237	147	42	28	33	47
MIN	63	162	160	160	170	183	110	45	18	5.7	11	18
AC-FT	8010	10530	10900	11260	11330	12220	10300	6760	1750	675	1200	1940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 2003, BY WATER YEAR (WY)

MEAN	197	256	266	272	316	404	517	515	271	99.7	93.0	128
MAX	477	479	493	513	754	1054	1251	1986	1416	416	324	480
(WY)	1987	1984	1984	1984	1986	1986	1986	1984	1984	1984	1984	1986
MIN	70.0	90.5	158	155	167	179	62.9	27.3	26.2	11.0	11.2	25.8
(WY)	1993	1935	1993	1993	1993	1934	1934	1992	1992	2003	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1897 - 2003
ANNUAL TOTAL	56077	43796.5	
ANNUAL MEAN	154	120	276
HIGHEST ANNUAL MEAN			705
LOWEST ANNUAL MEAN			118
HIGHEST DAILY MEAN	435	Apr 16	279
LOWEST DAILY MEAN	18	Jul 9	5.7
ANNUAL SEVEN-DAY MINIMUM	24	Jul 3	6.3
ANNUAL RUNOFF (AC-FT)	111200	86870	200200
10 PERCENT EXCEEDS	277	202	520
50 PERCENT EXCEEDS	170	140	239
90 PERCENT EXCEEDS	29	16	62

e Estimated

PORTNEUF RIVER BASIN

13075500 PORTNEUF RIVER AT POCATELLO, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1981, 1991, 1993, 1995-96, April to September 1998, April to September 2000, December 2001 to November 2002, July to September 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May to September 1996, May to September 1998, April to September 2000, December 2001 to November 2002 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.8 °C July 14, 2002; minimum, 0.0 °C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Turbidity, wat unfltrd, lab, Hach 2100AN NTU (99872)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC col/100 mL (31625)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUL 17...	1245	7.3	566	8.8	35.8	26.1	3.2	12.7	184	840	--	--	--
AUG 14...	1730	12	648	8.6	37.4	26.1	3.2	8.2	118	303	--	--	--
SEP 19...	1250	34	733	9.4	21.0	12.1	3.9	12.4	135	200	300	66.0	32.8
Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Potassium, water, fltrd, mg/L (00935)	Bicarbonate, wat unfltrd, end pt, mg/L (00440)	Carbonate, wat unfltrd, end pt, mg/L (00445)	ANC, wat unfltrd, end pt, field, mg/L as CaCO3 (00410)	Sulfate, water, fltrd, mg/L (00945)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Ammonia, water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)
JUL 17...	--	--	--	--	--	--	--	--	--	--	<.015	.49	<.022
AUG 14...	--	--	--	--	--	--	--	--	--	--	<.015	.46	<.022
SEP 19...	42.7	23	9.32	268	29	268	41.6	53.0	.3	26.3	<.015	.33	<.022
Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)									
JUL 17...	.015	.050	12	.24									
AUG 14...	.013	.045	8	.26									
SEP 19...	<.007	.025	11	1.0									

< Less than

PORTNEUF RIVER BASIN

13075910 PORTNEUF RIVER AT TYHEE, ID

LOCATION.--Lat 42°56'41", long 112°32'39", in NE $\frac{1}{4}$ sec.36, T.5 S., R.33 E., Bannock-Power County line, Michaud quad., Hydrologic Unit 17040208, on right bank 250 ft from gravel road, approximately 6 mi northwest of Chubbuck, and 4 mi west of Tyhee.

PERIOD OF RECORD.--April 1927 to October 1928, June 1932 to September 1978 and April 1984 (discharge measurements only); May 1985 to September 1994, March 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,370 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Station equipment includes satellite telemetry. Many diversions upstream for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s May 6, 1986, gage height, 6.76 ft; minimum daily, 32 ft³/s July 4, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 539 ft³/s Feb. 2; minimum daily, 32 ft³/s July 4.

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	282	391	425	412	528	472	437	285	106	51	154	171
2	282	387	424	405	539	467	451	269	98	37	142	167
3	313	387	422	400	507	462	456	237	63	34	149	177
4	395	394	421	400	483	463	444	262	65	32	162	172
5	387	396	422	399	465	460	444	285	71	33	155	162
6	368	397	425	398	446	455	445	246	78	78	158	167
7	358	403	422	394	409	453	449	232	87	120	154	176
8	367	437	418	385	432	451	442	222	90	117	149	177
9	381	445	417	374	447	447	440	257	124	115	153	200
10	339	450	410	368	446	448	434	313	60	120	166	199
11	314	439	417	386	444	448	438	341	45	118	170	196
12	319	436	420	387	445	453	449	306	45	141	124	193
13	364	435	419	393	455	454	463	282	51	128	132	197
14	309	437	416	395	474	465	474	260	48	164	134	199
15	303	438	416	400	494	470	494	246	111	137	138	204
16	345	439	423	397	505	507	488	246	112	129	126	196
17	369	437	434	395	508	504	470	252	48	146	133	220
18	396	439	435	391	499	490	432	278	41	158	138	219
19	364	441	425	390	498	469	398	263	40	187	132	195
20	360	443	413	390	491	457	422	268	45	216	144	196
21	361	443	411	395	492	450	390	220	46	209	122	193
22	362	444	417	400	491	446	383	209	60	176	117	194
23	365	446	413	411	490	440	365	158	76	154	126	190
24	367	449	395	424	482	442	371	152	56	161	166	185
25	372	441	378	430	476	436	352	196	82	161	160	175
26	378	431	383	430	477	443	360	184	57	158	133	166
27	376	424	404	450	477	450	360	146	66	159	125	164
28	376	427	402	465	475	451	356	117	95	167	126	154
29	386	425	402	472	---	433	362	104	134	179	118	143
30	396	424	402	471	---	425	353	98	99	150	157	142
31	397	---	406	486	---	424	---	92	---	151	175	---
TOTAL	11051	12825	12837	12693	13375	14135	12622	7026	2199	4086	4438	5489
MEAN	356	428	414	409	478	456	421	227	73.3	132	143	183
MAX	397	450	435	486	539	507	494	341	134	216	175	220
MIN	282	387	378	368	409	424	352	92	40	32	117	142
AC-FT	21920	25440	25460	25180	26530	28040	25040	13940	4360	8100	8800	10890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	434	490	488	485	541	632	617	481	245	184	264	315							
MAX	787	732	668	633	1016	1313	1535	1430	665	328	517	729							
(WY)	1987	1987	1987	1987	1986	1986	1986	1986	1986	1986	1986	1986							
MIN	323	371	381	354	347	456	322	92.8	73.3	132	143	183							
(WY)	1993	1993	1993	1993	1993	2003	1992	1992	2003	2003	2003	2003							

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1985 - 2003	
ANNUAL TOTAL	125817		112776			
ANNUAL MEAN	345		309		431	
HIGHEST ANNUAL MEAN					833	
LOWEST ANNUAL MEAN					309	
HIGHEST DAILY MEAN	666	Apr 16	539	Feb 2	1730	May 6 1986
LOWEST DAILY MEAN	47	Jul 3	32	Jul 4	32	Jul 4 2003
ANNUAL SEVEN-DAY MINIMUM	61	Jun 30	51	Jun 17	51	Jun 17 2003
ANNUAL RUNOFF (AC-FT)	249600		223700		312300	
10 PERCENT EXCEEDS	506		464		669	
50 PERCENT EXCEEDS	396		372		420	
90 PERCENT EXCEEDS	152		112		164	

PORTNEUF RIVER BASIN

13075983 SPRING CREEK AT SHEEPSKIN ROAD NEAR FORT HALL, ID

LOCATION.--Lat 43°02'33", long 112°33'00", in NW¼NE¼SW¼ sec.25, T.4 S., R.33 E., Bingham County, Pingree quad., Hydrologic Unit 17040206, on left bank, 300 yards upstream from county road bridge, and 5.9 mi west of Fort Hall.

PERIOD OF RECORD.--July 1980 to current year (prior to July 1980, miscellaneous measurements only).

GAGE.--Water-stage recorder. Elevation of gage is 4,380 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 605 ft³/s June 8, 1998; maximum gage height, 6.09 ft, June 18, 1997 (backwater from Snake River); minimum daily, 226 ft³/s June 18, 19, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 331 ft³/s Mar. 16; minimum daily, 226 ft³/s June 18, 19.

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	326	309	314	308	293	288	322	289	262	227	261	266
2	317	310	313	308	297	285	314	300	263	227	263	264
3	314	309	311	305	293	285	296	297	253	229	265	262
4	315	312	311	304	294	285	277	289	251	228	270	262
5	314	312	313	304	292	282	277	283	248	227	267	262
6	314	312	311	302	289	281	277	283	251	230	266	264
7	315	313	311	300	289	279	275	282	244	232	266	263
8	319	322	312	299	289	278	274	279	245	230	270	266
9	315	320	313	299	288	279	271	286	250	234	269	265
10	313	317	312	299	287	279	277	299	247	232	261	278
11	309	315	313	300	288	281	276	303	240	231	264	274
12	310	315	315	300	288	279	275	329	238	235	261	268
13	312	316	313	301	292	279	279	306	232	235	261	269
14	313	316	312	299	295	281	285	279	231	238	260	273
15	313	316	314	296	293	304	293	277	231	235	261	267
16	313	316	315	295	295	331	277	272	234	236	263	266
17	312	317	317	292	293	300	281	267	230	238	269	264
18	313	316	314	293	291	290	278	271	226	241	267	266
19	312	316	312	293	292	283	277	283	226	241	263	265
20	314	317	312	291	292	284	279	278	228	243	260	260
21	313	316	311	291	293	284	285	273	228	246	257	262
22	313	317	311	291	295	287	291	268	230	244	262	260
23	311	321	309	292	294	289	323	264	235	247	262	253
24	310	320	306	292	292	293	316	262	232	249	266	253
25	310	314	308	292	291	284	304	270	230	250	263	250
26	310	312	307	292	290	282	306	277	235	253	264	250
27	309	311	304	294	290	284	309	272	230	253	265	250
28	311	313	310	294	288	279	317	267	230	258	261	250
29	313	312	309	292	---	281	295	265	231	258	262	248
30	312	312	308	292	---	298	286	264	231	260	262	244
31	310	---	309	292	---	306	---	260	---	259	260	---
TOTAL	9705	9444	9650	9202	8163	8900	8692	8694	7142	7446	8171	7844
MEAN	313	315	311	297	292	287	290	280	238	240	264	261
MAX	326	322	317	308	297	331	323	329	263	260	270	278
MIN	309	309	304	291	287	278	271	260	226	227	257	244
AC-FT	19250	18730	19140	18250	16190	17650	17240	17240	14170	14770	16210	15560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2003, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
MEAN	373	365	358	351	346	345	343	361	357	335	344	363													
MAX	438	419	398	404	400	392	414	477	574	403	417	435													
(WY)	1985	1985	1985	1998	1986	1985	1985	1998	1998	1998	1984	1984													
MIN	313	315	311	297	292	287	290	280	238	240	264	261													
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003													

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1980 - 2003
ANNUAL TOTAL	111557	103053	
ANNUAL MEAN	306	282	353
HIGHEST ANNUAL MEAN			410
LOWEST ANNUAL MEAN			282
HIGHEST DAILY MEAN	337	331	605
LOWEST DAILY MEAN	261	226	226
ANNUAL SEVEN-DAY MINIMUM	264	228	228
ANNUAL RUNOFF (AC-FT)	221300	204400	256000
10 PERCENT EXCEEDS	324	314	401
50 PERCENT EXCEEDS	309	286	352
90 PERCENT EXCEEDS	281	239	307

SNAKE RIVER MAIN STEM

13077000 SNAKE RIVER AT NEELEY, ID

LOCATION.--Lat 42°46'03", long 112°52'46", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.31, T.7 S., R.31 E., Power County, American Falls SW quad., Hydrologic Unit 17040209, on right bank 400 ft upstream from fish hatchery buildings, 0.9 mi downstream from American Falls Dam, and at mile 714.1.

DRAINAGE AREA.--13,600 mi², approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--March 1906 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1317: 1910.

GAGE.--Water-stage recorder. Datum of gage is 4,241.6 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation). Prior to Aug. 8, 1910, nonrecording gage, and Aug. 8, 1910 to June 6, 1930, water-stage recorder at site 2.5 mi downstream at different datum. June 7, 1930 to Mar. 19, 1945, water-stage recorder at site 0.4 mi upstream at datum 0.4 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by American Falls Reservoir and other reservoirs, having a combined usable capacity of 4,600,000 acre-ft. Diversions above station for irrigation of about 1,080,000 acres, of which about 228,000 acres are irrigated by withdrawals from ground water (1966 determination). Considerable water leaks into the Snake River Plain aquifer above the station, some of which returns above American Falls Reservoir. Records computed to show flow at former site in sec.11, T.8 S., R.30 E., 0.5 mi north of Neeley, and 2.5 mi downstream from present site, by adding inflow between sites.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to regulation by American Falls Dam (1907-26), 48,400 ft³/s June 20, 1918, gage height, 13.5 ft, site and datum then in use; minimum daily, 2,180 ft³/s Oct. 7, 1924.

Maximum discharge since regulation began in 1927, 46,100 ft³/s June 19, 20, 24, 25, 1997, gage height, 11.46 ft, present site and datum; minimum, 50 ft³/s Oct. 22, 23, Nov. 14-16, 1941, Oct. 29, 1961, Nov. 6, 1970; minimum gage height, 0.82 ft, Oct. 29, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,400 ft³/s June 18; minimum daily, 280 ft³/s Oct. 19.

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	4800	419	422	346	385	391	2010	5790	10300	11500	11700	8520
2	4260	422	408	348	385	392	2400	5760	11000	10900	11800	7600
3	4060	420	372	349	385	395	2370	5760	11400	10600	11900	7060
4	4080	416	372	349	415	394	2500	5760	11000	10600	10900	7050
5	4080	416	373	351	400	399	2500	5940	10100	10900	10000	7070
6	4070	404	374	363	400	400	2500	6060	9550	11300	9680	7110
7	4070	370	376	376	400	400	2990	6060	9670	11300	9670	7080
8	4070	378	377	377	400	403	3530	6060	9510	11300	9580	7100
9	3780	378	381	377	402	403	3520	6340	11200	11400	9560	7130
10	2670	378	370	377	405	406	3510	6640	11200	11200	10200	7170
11	1990	380	373	378	403	406	3790	6630	11100	11100	10700	7010
12	1790	382	373	381	403	410	4130	6290	11100	11100	10600	7070
13	1460	385	374	383	405	406	4130	5830	11100	11300	10500	7070
14	870	386	375	370	405	408	4100	5920	10900	11600	10400	6770
15	351	388	375	372	404	414	4100	6850	11000	11700	10300	6320
16	293	389	378	371	405	414	4050	7270	11400	11400	9880	6030
17	305	394	376	372	404	412	4080	7880	12200	11300	9930	6090
18	287	394	376	373	404	412	4040	8230	12400	11300	10100	5840
19	280	397	376	374	424	412	4040	8440	12200	11300	10100	5720
20	282	391	377	375	425	412	3790	8410	11600	11300	10300	5310
21	289	382	379	376	426	414	3400	8210	11500	11400	10200	5100
22	320	414	379	377	427	414	3340	8420	11500	11400	10200	5130
23	376	411	380	379	427	415	3530	9120	11100	11400	9930	4970
24	405	412	381	377	425	414	3770	9870	10800	11600	9490	4700
25	409	413	381	378	425	414	4340	10000	10600	11800	8670	4760
26	407	415	382	381	426	416	4740	10000	10600	11600	8400	4330
27	410	417	363	382	426	415	4700	9940	10900	11000	8440	3710
28	413	419	346	381	411	415	4730	9980	11100	10600	8420	3730
29	413	420	345	384	---	415	5190	10100	11100	10600	8400	3770
30	415	420	345	401	---	416	5800	10200	11200	10700	8440	3790
31	416	---	351	384	---	961	---	10200	---	11400	8430	---
TOTAL	52121	12010	11610	11562	11452	13198	111620	237960	330330	347900	306820	180110
MEAN	1681	400	375	373	409	426	3721	7676	11010	11220	9897	6004
MAX	4800	422	422	401	427	961	5800	10200	12400	11800	11900	8520
MIN	280	370	345	346	385	391	2010	5760	9510	10600	8400	3710
AC-FT	103400	23820	23030	22930	22720	26180	221400	472000	655200	690100	608600	357200

SNAKE RIVER MAIN STEM

13077000 SNAKE RIVER AT NEELEY, ID--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1926, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6610	7034	6134	5757	5957	6760	9783	16870	20590	11890	6821	6058
MAX	10490	9209	7590	7111	6920	11650	18480	24120	35470	23940	10610	12410
(WY)	1913	1913	1908	1914	1911	1910	1910	1910	1909	1907	1912	1912
MIN	3911	5254	4411	4526	4889	5089	6084	6047	6028	5162	2783	2565
(WY)	1923	1925	1920	1916	1923	1920	1920	1924	1924	1919	1924	1919

SUMMARY STATISTICS ^a WATER YEARS 1907 - 1926

ANNUAL MEAN	8957
HIGHEST ANNUAL MEAN	11890
LOWEST ANNUAL MEAN	5375
HIGHEST DAILY MEAN	48400
LOWEST DAILY MEAN	2180
ANNUAL SEVEN-DAY MINIMUM	2440
ANNUAL RUNOFF (AC-FT)	6489000
10 PERCENT EXCEEDS	18200
50 PERCENT EXCEEDS	7010
90 PERCENT EXCEEDS	4630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2003, BY WATER YEAR (WY) (REGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3701	2827	3168	3686	3745	4563	8392	13130	14050	12360	10890	7388
MAX	12630	12420	10600	12640	18080	19940	22500	25160	35580	16570	13280	13560
(WY)	1985	1985	1987	1984	1997	1997	1971	1976	1997	1950	1997	1997
MIN	276	56.3	55.2	123	92.7	306	1688	5880	6062	7561	5664	3140
(WY)	1962	1967	1962	1967	1961	1993	1935	1930	1934	1934	1934	1934

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR ^b WATER YEARS 1927 - 2003

ANNUAL TOTAL	1611673	1626693	
ANNUAL MEAN	4416	4457	7343
HIGHEST ANNUAL MEAN			13800
LOWEST ANNUAL MEAN			3834
HIGHEST DAILY MEAN	11700	Jun 26	12400
LOWEST DAILY MEAN	280	Oct 19	280
ANNUAL SEVEN-DAY MINIMUM	294	Oct 16	294
ANNUAL RUNOFF (AC-FT)	3197000	3227000	5320000
10 PERCENT EXCEEDS	10600	11100	13200
50 PERCENT EXCEEDS	2130	3510	6910
90 PERCENT EXCEEDS	363	375	748

a Prior to regulation by American Falls Dam.
 b Since regulation by American Falls Dam.