



**Figure 11.** 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°00'21", long 111°29'35", in NW¼NE¼NE¼ sec.11, T.5 S., R.42 E., Caribou County, 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 current year (irrigation seasons only).

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 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e0.30	0.20	0.10	0.56	e0.10	e0.00
2	---	---	---	---	---	---	e0.30	0.19	0.09	0.53	e0.10	e0.00
3	---	---	---	---	---	---	e0.30	0.18	0.01	0.54	e0.10	e0.00
4	---	---	---	---	---	---	0.34	0.16	0.00	0.52	e0.10	e0.00
5	---	---	---	---	---	---	0.31	0.15	0.00	0.56	e0.10	e0.00
6	---	---	---	---	---	---	0.31	0.14	0.00	0.54	e0.10	e0.00
7	---	---	---	---	---	---	0.30	0.14	0.00	0.42	e0.10	e0.00
8	---	---	---	---	---	---	0.31	0.12	0.00	0.41	e0.10	e0.00
9	---	---	---	---	---	---	0.31	0.12	0.01	0.48	e0.09	e0.00
10	---	---	---	---	---	---	0.45	0.12	0.00	0.48	e0.09	e0.00
11	---	---	---	---	---	---	0.55	0.10	7.9	0.44	e0.08	e0.00
12	---	---	---	---	---	---	0.55	0.07	17	0.43	e0.08	e0.00
13	---	---	---	---	---	---	0.57	0.07	34	0.48	e0.08	e0.00
14	---	---	---	---	---	---	0.54	0.06	55	0.48	e0.07	e0.00
15	---	---	---	---	---	---	0.52	0.07	54	0.51	e0.07	e0.00
16	---	---	---	---	---	---	0.52	0.08	54	0.44	e0.06	e0.00
17	---	---	---	---	---	---	0.42	0.07	55	0.39	e0.06	0.00
18	---	---	---	---	---	---	0.41	0.08	88	0.44	e0.06	0.00
19	---	---	---	---	---	---	0.42	0.09	127	0.45	e0.05	0.00
20	---	---	---	---	---	---	0.37	0.09	126	0.33	e0.05	0.00
21	---	---	---	---	---	---	0.37	0.11	178	0.30	e0.04	0.00
22	---	---	---	---	---	---	0.36	0.13	229	0.32	e0.04	0.00
23	---	---	---	---	---	---	0.33	0.09	219	0.28	e0.04	0.00
24	---	---	---	---	---	---	0.28	0.07	85	0.27	e0.03	0.00
25	---	---	---	---	---	---	0.25	0.07	1.6	0.35	e0.03	0.00
26	---	---	---	---	---	---	0.25	0.06	1.1	0.33	e0.02	0.00
27	---	---	---	---	---	---	0.24	0.04	0.89	0.23	e0.02	0.00
28	---	---	---	---	---	---	0.22	0.05	0.79	0.18	e0.01	0.00
29	---	---	---	---	---	---	0.21	0.03	0.65	0.14	e0.01	0.00
30	---	---	---	---	---	---	0.20	0.0	0.59	e0.10	e0.01	0.00
31	---	---	---	---	---	---	---	0.03	---	e0.10	e0.00	---
TOTAL	---	---	---	---	---	---	10.81	2.98	1334.73	12.03	1.89	0.00
MEAN	---	---	---	---	---	---	0.360	0.096	44.49	0.388	0.061	0.000
MAX	---	---	---	---	---	---	0.57	0.20	229	0.56	0.10	0.00
MIN	---	---	---	---	---	---	0.20	0.00	0.00	0.10	0.00	0.00
AC-FT	---	---	---	---	---	---	21	5.9	2650	24	3.7	0.00

e Estimated

## WILLOW CREEK BASIN

## 13057500 GRAYS LAKE OUTLET NEAR HERMAN, ID

LOCATION.--Lat 43°08'05", long 111°29'40", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.26, T.3 S., R.42 E., Bonneville County, 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 mi<sup>2</sup>.

PERIOD OF RECORD.--1916-25 (irrigation seasons only), June 1966 to October 1970, June to September 2002 (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 ft<sup>3</sup>/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 during period June to September, 6.2 ft<sup>3</sup>/s July 10; minimum daily, 0.06 ft<sup>3</sup>/s Sept. 2-4.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	0.65	0.22	0.21	0.15	0.07
2	---	---	---	---	---	---	---	0.54	0.27	0.27	0.15	0.06
3	---	---	---	---	---	---	---	0.47	0.32	0.27	0.14	0.06
4	---	---	---	---	---	---	---	0.33	0.23	0.31	0.12	0.06
5	---	---	---	---	---	---	---	0.33	0.21	1.5	0.11	0.07
6	---	---	---	---	---	---	---	0.32	0.20	3.9	0.12	0.14
7	---	---	---	---	---	---	---	0.38	0.19	5.0	0.13	0.27
8	---	---	---	---	---	---	---	0.36	0.19	5.5	0.10	0.16
9	---	---	---	---	---	---	---	0.29	0.24	6.1	0.10	0.07
10	---	---	---	---	---	---	---	0.28	0.25	6.2	0.10	0.07
11	---	---	---	---	---	---	---	0.28	0.24	5.7	0.10	0.22
12	---	---	---	---	---	---	---	0.26	0.20	0.28	0.10	0.41
13	---	---	---	---	---	---	---	0.28	0.18	0.27	0.10	0.52
14	---	---	---	---	---	---	---	0.29	0.17	0.26	0.10	0.38
15	---	---	---	---	---	---	---	0.27	0.18	0.23	0.09	0.30
16	---	---	---	---	---	---	---	0.27	0.18	0.23	0.09	0.31
17	---	---	---	---	---	---	---	0.27	0.17	0.22	0.09	0.33
18	---	---	---	---	---	---	---	0.28	0.18	0.23	0.09	0.44
19	---	---	---	---	---	---	---	0.25	0.16	0.26	0.09	0.27
20	---	---	---	---	---	---	---	0.26	0.15	0.23	0.09	0.28
21	---	---	---	---	---	---	---	0.51	0.15	0.22	0.09	0.24
22	---	---	---	---	---	---	---	0.98	0.17	0.21	0.09	0.22
23	---	---	---	---	---	---	---	0.41	0.17	0.20	0.09	0.22
24	---	---	---	---	---	---	---	0.29	0.15	0.19	0.09	0.20
25	---	---	---	---	---	---	---	0.27	0.15	0.20	0.09	0.11
26	---	---	---	---	---	---	---	0.28	0.15	0.22	0.09	0.08
27	---	---	---	---	---	---	---	0.26	0.15	0.18	0.08	0.07
28	---	---	---	---	---	---	---	0.25	0.16	0.18	0.09	0.07
29	---	---	---	---	---	---	---	0.24	0.16	0.16	0.08	0.07
30	---	---	---	---	---	---	---	0.24	0.19	0.15	0.08	0.09
31	---	---	---	---	---	---	---	0.22	---	0.16	0.08	---
TOTAL	---	---	---	---	---	---	---	10.61	5.73	39.24	3.11	5.86
MEAN	---	---	---	---	---	---	---	0.342	0.191	1.266	0.100	0.195
MAX	---	---	---	---	---	---	---	0.98	0.32	6.2	0.15	0.52
MIN	---	---	---	---	---	---	---	0.22	0.15	0.15	0.08	0.06
AC-FT	---	---	---	---	---	---	---	21	11	78	6.2	12

WILLOW CREEK BASIN

13057940 WILLOW CREEK BELOW TEX CREEK, NEAR RIRIE, ID

LOCATION.--Lat 43°26'30", long 111°43'42", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.3, T.1 N., R.40 E., Bonneville County, Hydrologic Unit 17040205, on right bank, 0.3 mi below Tex Creek and 13.2 mi southeast of Ririe.

DRAINAGE AREA.--568 mi<sup>2</sup>.

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 ft<sup>3</sup>/s May 7, 1997, gage height, 6.73 ft; minimum, 2.1 ft<sup>3</sup>/s Aug. 23, 1992, gage height, 1.62 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 309 ft<sup>3</sup>/s Apr. 24, gage height, 3.73 ft; minimum daily, 6.6 ft<sup>3</sup>/s Aug. 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	21	e18	e21	e18	e18	51	188	76	23	8.0	9.2
2	12	21	e19	e21	e18	e15	62	176	78	21	8.6	9.0
3	12	20	e18	e22	e17	e16	74	154	84	20	8.7	9.0
4	12	18	e18	e20	e17	e17	71	147	80	19	9.8	8.1
5	12	18	e18	e20	e17	e19	77	144	76	19	9.5	8.5
6	12	19	e18	e21	e18	e22	95	137	69	18	8.9	8.7
7	12	22	e18	e22	e19	e21	111	131	65	18	8.0	12
8	14	24	e18	e23	e19	e21	118	129	61	18	8.0	17
9	14	21	e17	e22	e18	e21	115	122	64	16	7.9	14
10	14	19	e17	e21	e19	e23	110	116	75	15	8.2	12
11	15	18	e17	e22	e20	e24	124	113	78	14	8.4	11
12	18	19	e16	e21	e19	e30	132	107	69	13	8.2	11
13	17	19	e17	e21	e19	e28	155	103	62	12	8.4	10
14	17	18	e19	e20	e19	e26	190	100	57	11	7.0	10
15	16	19	e18	e19	e19	e25	247	99	52	11	6.8	11
16	16	18	e18	e19	e19	e26	261	96	45	10	6.6	10
17	16	18	e19	e20	e20	e26	194	93	43	9.2	7.4	11
18	15	19	e20	e20	e20	e25	158	91	38	9.5	7.9	12
19	15	19	e21	e20	e21	e26	154	89	39	12	8.0	12
20	16	20	e22	e20	e20	e26	154	88	38	13	8.1	14
21	16	19	e21	e21	e19	e26	142	94	37	13	8.3	13
22	16	e19	e20	e20	e20	e27	149	144	34	13	8.5	12
23	16	e19	e18	e20	e22	e27	219	165	38	12	8.9	12
24	17	e18	e18	e21	e20	e27	260	155	37	12	8.9	12
25	18	e18	e19	e21	e17	e28	202	133	34	11	8.3	12
26	17	e18	e19	e21	e15	30	185	115	33	10	8.7	12
27	17	e17	e19	e19	e16	30	187	106	30	9.8	9.0	12
28	17	e17	e19	e17	e18	35	180	95	27	11	9.5	12
29	17	e18	e21	e15	---	36	167	91	26	9.9	9.3	14
30	17	e18	e20	e14	---	44	168	85	24	9.5	8.7	15
31	19	---	e21	e17	---	45	---	81	---	8.2	9.2	---
TOTAL	474	571	581	621	523	810	4512	3687	1569	421.1	259.7	345.5
MEAN	15.29	19.03	18.74	20.03	18.68	26.13	150.4	118.9	52.30	13.58	8.377	11.52
MAX	19	24	22	23	22	45	261	188	84	23	9.8	17
MIN	12	17	16	14	15	15	51	81	24	8.2	6.6	8.1
AC-FT	940	1130	1150	1230	1040	1610	8950	7310	3110	835	515	685

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	38.10	42.61	41.14	41.12	43.75	88.23	332.6	432.3	171.3	60.10	34.21	30.01
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	20.0	18.7	26.1	63.5	25.3	15.2	6.48	3.16	7.38
(WY)	1993	1993	2002	2002	2002	2002	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1977 - 2002
ANNUAL TOTAL	12092.8	14374.3	
ANNUAL MEAN	33.13	39.38	113.2
HIGHEST ANNUAL MEAN			287
LOWEST ANNUAL MEAN			27.4
HIGHEST DAILY MEAN	197	Apr 20	261
LOWEST DAILY MEAN	6.1	Aug 9	6.6
ANNUAL SEVEN-DAY MINIMUM	6.4	Aug 3	7.4
ANNUAL RUNOFF (AC-FT)	23990	28510	82010
10 PERCENT EXCEEDS	88	115	276
50 PERCENT EXCEEDS	20	19	49
90 PERCENT EXCEEDS	7.7	9.4	16

e Estimated

WILLOW CREEK BASIN  
13058000 WILLOW CREEK NEAR RIRIE, ID

LOCATION.--Lat 43°35'00", long 111°44'45", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.16, T.3 N., R.40 E., Bonneville County, 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 mi<sup>2</sup>.

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 ft<sup>3</sup>/s May 15, 1917, gage height, 16.30 ft; minimum daily, 1.2 ft<sup>3</sup>/s Aug. 12, 1974.

Maximum discharge since regulation (1975-2002), 2,320 ft<sup>3</sup>/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 ft<sup>3</sup>/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 discharge, 464 ft<sup>3</sup>/s Aug. 28, gage height, 4.96 ft; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92	35	29	443
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92	30	29	439
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93	30	29	445
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93	30	29	446
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	94	30	29	445
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46	87	30	30	323
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79	30	30	172
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80	30	30	173
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80	30	30	173
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81	30	30	92
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81	30	30	59
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81	30	30	59
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	81	29	30	59
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113	81	29	30	60
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108	81	29	30	60
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108	81	29	30	61
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107	65	29	30	61
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107	44	29	30	62
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107	44	29	30	62
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108	42	29	30	63
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95	39	29	30	63
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	30	63
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	31	64
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	33	65
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	34	65
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	35	65
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	162	65
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91	39	29	396	67
29	0.00	0.00	0.00	0.00	---	0.00	0.00	91	39	29	455	68
30	0.00	0.00	0.00	0.00	---	0.00	0.00	91	39	29	450	21
31	0.00	---	0.00	0.00	---	0.00	---	91	---	29	445	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1900.00	1942	916	2696	4363
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.29	64.73	29.55	86.97	145.4
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113	94	35	455	446
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39	29	29	21
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3770	3850	1820	5350	8650

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 <sup>a</sup> WATER YEARS 1903 - 1974

ANNUAL MEAN	176
HIGHEST ANNUAL MEAN	280 1971
LOWEST ANNUAL MEAN	88.0 1963
HIGHEST DAILY MEAN	4200 May 15 1917
LOWEST DAILY MEAN	1.2 Aug 12 1974
ANNUAL SEVEN-DAY MINIMUM	4.3 Aug 7 1974
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 - 2002, BY WATER YEAR (WY) (REGULATED, UNADJUSTED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	190.3	61.45	12.74	5.576	11.40	39.31	81.24	314.1	197.7	86.10	141.3	255.2
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	27.8	25.1	17.7
(WY)	2002	1992	1986	1986	1987	1987	1988	1977	2001	2000	1977	1977

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR <sup>b</sup> WATER YEARS 1975 - 2002

ANNUAL TOTAL	17011.00	11817.00
ANNUAL MEAN	46.61	32.38
HIGHEST ANNUAL MEAN		116.8
LOWEST ANNUAL MEAN		295
HIGHEST DAILY MEAN		32.4
LOWEST DAILY MEAN	429 Aug 18	455 Aug 29
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1
ANNUAL RUNOFF (AC-FT)	33740	23440
10 PERCENT EXCEEDS	117	91
50 PERCENT EXCEEDS	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00

<sup>a</sup> Unregulated  
<sup>b</sup> Regulated

## WILLOW CREEK BASIN

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

LOCATION.--Lat 43°34'27", long 111°53'42", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.20, T.3 N., R.39 E., Bonneville County, 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. About 177,000 acre-ft was diverted into the creek during 2001 irrigation season. Diversions below Ririe Lake (13057950) and above station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 797 ft<sup>3</sup>/s June 13, 1996; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	0.00	0.00	0.00	0.00	0.00	0.00	0.00	407	472	343	273
2	198	0.00	0.00	0.00	0.00	0.00	0.00	0.00	404	477	327	260
3	191	0.00	0.00	0.00	0.00	0.00	0.00	0.00	398	499	309	249
4	172	0.00	0.00	0.00	0.00	0.00	0.00	0.00	392	514	310	249
5	169	0.00	0.00	0.00	0.00	0.00	0.00	0.00	433	517	296	250
6	177	0.00	0.00	0.00	0.00	0.00	0.00	0.00	457	523	286	246
7	176	0.00	0.00	0.00	0.00	0.00	0.00	113	466	504	287	242
8	174	0.00	0.00	0.00	0.00	0.00	0.00	126	508	487	301	238
9	159	0.00	0.00	0.00	0.00	0.00	0.00	122	510	468	298	235
10	97	0.00	0.00	0.00	0.00	0.00	0.00	146	495	451	282	231
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	185	474	455	274	263
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208	480	475	277	287
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	282	499	462	259	284
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	316	523	471	277	283
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	300	541	463	300	287
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	320	531	457	278	292
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	345	496	459	291	295
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383	476	465	306	299
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	439	507	455	302	303
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	451	513	446	296	293
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	445	505	444	303	283
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	420	481	419	296	277
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	390	483	399	304	271
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	331	451	387	307	274
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	330	369	381	323	272
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	331	409	386	290	266
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	332	454	362	288	257
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	317	471	367	284	261
29	0.00	0.00	0.00	0.00	---	0.00	0.00	334	460	361	275	265
30	0.00	0.00	0.00	0.00	---	0.00	0.00	381	455	343	268	265
31	0.00	---	0.00	0.00	---	0.00	---	396	---	345	275	---
TOTAL	1711.00	0.00	0.00	0.00	0.00	0.00	0.00	7743.00	14048	13714	9112	8050
MEAN	55.19	0.000	0.000	0.000	0.000	0.000	0.000	249.8	468.3	442.4	293.9	268.3
MAX	198	0.00	0.00	0.00	0.00	0.00	0.00	451	541	523	343	303
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	369	343	259	231
AC-FT	3390	0.00	0.00	0.00	0.00	0.00	0.00	15360	27860	27200	18070	15970
CAL YR 2001	TOTAL	58307.00	MEAN	159.7	MAX	539	MIN	0.00	AC-FT	115700		
WTR YR 2002	TOTAL	54378.00	MEAN	149.0	MAX	541	MIN	0.00	AC-FT	107900		

WILLOW CREEK BASIN

13058520 WILLOW CREEK FLOODWAY CHANNEL NEAR UCON, ID

LOCATION.--Lat 43°34'35", long 111°54'47", SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.19, T.3 N., R.39 E., Bonneville County, 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 ft<sup>3</sup>/s Feb. 11, 1979; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	387
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	387
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	387
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	389
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	386
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24	0.00	0.00	0.00	387
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50	0.00	0.00	0.00	202
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37	0.00	0.00	0.00	157
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.7	0.00	0.00	0.00	150
10	9.6	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	137
11	2.3	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	82
12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	56
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	24
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	27
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52	22
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	385	22
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	386	21
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.74	0.00	0.00	391	19
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	386	---
TOTAL	11.95	0.00	0.00	0.00	0.00	0.00	0.00	120.69	0.00	0.00	1600.00	3511
MEAN	0.385	0.000	0.000	0.000	0.000	0.000	0.000	3.893	0.000	0.000	51.61	117.0
MAX	9.6	0.00	0.00	0.00	0.00	0.00	0.00	50	0.00	0.00	391	389
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15
AC-FT	24	0.00	0.00	0.00	0.00	0.00	0.00	239	0.00	0.00	3170	6960
CAL YR 2001	TOTAL	11880.08	MEAN	32.55	MAX	413	MIN	0.00	AC-FT	23560		
WTR YR 2002	TOTAL	5243.64	MEAN	14.37	MAX	391	MIN	0.00	AC-FT	10400		



## WILLOW CREEK BASIN

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

LOCATION.--Lat 43°34'29", long 112°02'53", NE $\frac{1}{4}$  NW $\frac{1}{4}$  SE $\frac{1}{4}$  sec.24, T.3 N., R.37 E., Bonneville County, 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 ft<sup>3</sup>/s May 11, 1997; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.00	328
2	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.0	1.4	0.00	328
3	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.3	5.5	0.00	326
4	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.3	8.9	0.00	328
5	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.9	5.7	0.00	323
6	5.4	0.00	0.00	0.00	0.00	0.00	0.00	8.2	7.9	5.5	0.00	311
7	5.9	0.00	0.00	0.00	0.00	0.00	0.00	56	9.8	5.5	0.00	137
8	6.4	0.00	0.00	0.00	0.00	0.00	0.00	38	11	5.2	0.00	121
9	12	0.00	0.00	0.00	0.00	0.00	0.00	7.6	11	4.1	0.00	114
10	12	0.00	0.00	0.00	0.00	0.00	0.00	0.17	13	3.1	0.00	87
11	1.1	0.00	0.00	0.00	0.00	0.00	0.00	1.2	5.6	0.08	0.00	58
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.8	4.9	0.00	0.00	34
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	2.6	0.98	0.00	18
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.21	0.00	13
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	9.1
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.78	1.2	9.7
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.6	4.5	1.4	1.2	5.7
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.2	6.9	1.7	0.03	5.6
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.2	11	0.35	0.00	4.6
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	17	0.00	0.00	1.8
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	8.3	0.00	0.00	0.98
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.2	11	0.00	0.00	0.90
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.1	26	0.00	0.00	1.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.5	23	0.71	0.00	0.84
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	10	5.9	0.00	1.0
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.5	7.0	10	0.00	0.63
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	10	7.7	12	1.5
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	6.1	0.41	187	1.7
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.04	5.1	0.00	323	1.6
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.30	3.3	0.00	330	3.4
31	0.00	---	0.00	0.00	---	0.00	---	0.50	---	0.00	326	---
TOTAL	44.60	0.00	0.00	0.00	0.00	0.00	0.00	178.52	227.05	76.62	1180.90	2576.05
MEAN	1.439	0.000	0.000	0.000	0.000	0.000	0.000	5.759	7.568	2.472	38.09	85.87
MAX	12	0.00	0.00	0.00	0.00	0.00	0.00	56	26	10	330	328
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63
AC-FT	88	0.00	0.00	0.00	0.00	0.00	0.00	354	450	152	2340	5110
CAL YR 2001	TOTAL	10212.28	MEAN	27.98	MAX	380	MIN	0.00	AC-FT	20260		
WTR YR 2002	TOTAL	4283.74	MEAN	11.74	MAX	330	MIN	0.00	AC-FT	8500		

WILLOW CREEK BASIN

13058530 WILLOW CREEK BELOW FLOODWAY CHANNEL, NEAR UCON, ID

LOCATION.--Lat 43°34'33", long 111°54'43", SE<sup>1</sup>/<sub>4</sub> sec.19, T.3 N., R.39 E., Bonneville County, 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.--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; about 177,200 acre-ft diverted into the creek during 2001 irrigation season. Diversions below Ririe Lake (13057950) and above station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 279 ft<sup>3</sup>/s Feb. 11, 1979; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148	139	131	97
2	63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148	138	131	97
3	56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148	138	131	97
4	67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148	146	132	97
5	67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	152	132	96
6	59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148	153	134	89
7	59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	155	136	79
8	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	156	137	87
9	51	0.00	0.00	0.00	0.00	0.00	0.00	33	149	155	136	89
10	30	0.00	0.00	0.00	0.00	0.00	0.00	59	148	155	137	90
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71	147	155	138	84
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85	146	155	137	85
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112	144	155	137	110
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	129	149	155	128	127
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	134	153	156	118	141
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	135	153	158	110	137
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	136	152	159	97	130
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	152	153	160	99	130
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	155	152	160	100	e120
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	153	152	160	100	e110
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	154	146	159	101	e105
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	154	144	160	101	e100
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	153	142	161	100	e95
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	152	141	162	100	e90
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	151	141	163	99	85
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150	137	162	89	81
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150	139	161	76	75
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	140	161	94	78
29	0.00	0.00	0.00	0.00	---	0.00	0.00	151	138	158	101	78
30	0.00	0.00	0.00	0.00	---	0.00	0.00	146	139	148	100	68
31	0.00	---	0.00	0.00	---	0.00	---	148	---	138	97	---
TOTAL	590.00	0.00	0.00	0.00	0.00	0.00	0.00	3012.00	4392	4793	3559	2947
MEAN	19.03	0.000	0.000	0.000	0.000	0.000	0.000	97.16	146.4	154.6	114.8	98.23
MAX	80	0.00	0.00	0.00	0.00	0.00	0.00	155	153	163	138	141
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	137	138	76	68
AC-FT	1170	0.00	0.00	0.00	0.00	0.00	0.00	5970	8710	9510	7060	5850
CAL YR 2001	TOTAL	19273.00	MEAN	52.80	MAX	179	MIN	0.00	AC-FT	38230		
WTR YR 2002	TOTAL	19293.00	MEAN	52.86	MAX	163	MIN	0.00	AC-FT	38270		

e Estimated

## SNAKE RIVER MAIN STEM

## 13060000 SNAKE RIVER NEAR SHELLEY, ID

LOCATION.--Lat 43°24'48", long 112°08'03", in SE¼SW¼ sec.17, T.1 N., R.37 E., Bingham County, Hydrologic Unit 17040201, on right bank 0.3 mi southeast of Woodville, 2.5 mi north of Shelley, and at mile 787.8.

DRAINAGE AREA.--9,790 mi<sup>2</sup>, approximately, excluding indeterminate nontributary area on Snake River Plain.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1915 to current year (prior to October 1931, irrigation seasons only).

REVISED RECORDS.--WSP 1317: 1916.

GAGE.--Water-stage recorder. Datum of gage is 4,599.0 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Some regulation by Jackson Lake, Palisades Reservoir, Island Park Reservoir, Henrys Lake (sta 13039000), and Grassy Lake. Initial filling of forebay pool at Gem Power plant 2 mi upstream, occurred during March and April of 1988. Diversions above station for irrigation of about 39,000 acres below and about 637,000 acres above station, of which about 100,000 acres are irrigated by withdrawals from ground water (1966 determination). Considerable water leaks above station into Snake River Plain aquifer.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,300 ft<sup>3</sup>/s June 6, 1976, gage height, 19.12 ft, result of Teton Dam failure. Maximum discharge excluding 1976, 47,800 ft<sup>3</sup>/s June 17, 1997, gage height, 16.05 ft; maximum gage height, 16.97 ft, June 17, 1918; minimum, 288 ft<sup>3</sup>/s Nov. 5, 1934, gage height, 2.22 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1894, reached an estimated discharge of 75,000 ft<sup>3</sup>/s at former station (13059000) at Eagle Rock (now Idaho Falls), 7 mi upstream from present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,820 ft<sup>3</sup>/s July 29, gage height, 7.51 ft; minimum daily, 1,200 ft<sup>3</sup>/s Dec. 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3690	2350	2290	e1800	e1600	e1800	1960	3160	5540	4980	7270	6630
2	3570	2590	2310	e1700	e1600	e1900	e2200	3700	5900	4970	7280	6960
3	3460	2480	2280	e1500	e1600	e1700	2150	3950	6450	4630	6930	6940
4	3530	2440	2250	e1700	e1500	e1700	2210	4270	6820	4570	6620	7050
5	3340	2380	e2100	e1900	e1600	e1900	2060	4330	6710	4960	6590	7140
6	3680	2440	e2200	e1900	e1700	e2000	1910	4270	5860	5370	6630	6700
7	3700	2390	e2300	e2100	e1700	e2100	2070	4050	5020	5540	6470	6950
8	3700	2540	e2100	e2200	e1700	e2100	2060	3850	5190	5580	6300	7250
9	3600	2630	e2000	e2300	e1600	e2000	2170	3440	5810	5530	6170	7270
10	3680	2460	e2100	e2300	e1700	e2000	2030	2960	6160	5420	6070	7100
11	3670	2370	e1900	e2300	e1800	e1900	2090	2990	5890	5260	6150	6390
12	3490	2340	e1600	e2200	e1900	e2000	2210	3500	5250	5120	6290	5880
13	3490	2330	e1800	e2100	e1800	e2100	2140	3680	4550	5190	5880	5900
14	2910	2340	e1800	e2100	e1700	e2200	2010	3600	4360	5320	5610	5780
15	2870	2280	e1700	e2000	e1800	e2200	2140	4110	4780	5440	5540	5590
16	2860	2220	e1900	e1900	e1800	2070	2860	4200	5300	5470	5430	5420
17	2680	2260	e1800	e2000	e1800	1950	3240	4250	5430	5740	5520	5350
18	2640	2150	e2000	e1900	e1800	1920	3020	4260	5480	5980	5610	5560
19	2510	2290	e2200	e1800	e2000	1930	2540	4570	6160	6170	5790	5630
20	2510	2130	e2300	e1800	e2100	1850	2230	4710	6820	6480	5770	5200
21	2480	2160	e2200	e1900	e2000	2020	1970	5120	6920	6970	5770	4820
22	2370	2250	e2300	e1900	e2100	1840	1960	5950	6760	7250	5590	4250
23	2420	2210	e2000	e1800	e2200	1970	1750	6520	6140	7320	5590	4200
24	2360	2430	e2000	e1700	e2000	2110	1840	6380	6270	7210	5550	4100
25	2490	2340	e1500	e1700	e2000	2140	2050	5810	5790	7080	5600	4120
26	2360	2310	e1200	e1900	e1900	2210	2230	5450	5180	7150	5620	3930
27	2240	2200	e1300	e1900	e1800	2060	2410	5220	4910	7200	5650	4030
28	2210	2250	e1300	e1400	e1800	2110	2790	4990	4870	7230	6050	3940
29	2150	2090	e1600	e1700	---	2090	3020	4660	4840	7660	6240	3820
30	2110	2180	e1700	e1900	---	1980	2970	4610	4880	7360	6480	3860
31	2070	---	e1800	e1700	---	1980	---	5150	---	7130	6510	---
TOTAL	90840	69830	59830	59000	50600	61830	68290	137710	170040	187280	188570	167760
MEAN	2930	2328	1930	1903	1807	1995	2276	4442	5668	6041	6083	5592
MAX	3700	2630	2310	2300	2200	2210	3240	6520	6920	7660	7280	7270
MIN	2070	2090	1200	1400	1500	1700	1750	2960	4360	4570	5430	3820
AC-FT	180200	138500	118700	117000	100400	122600	135500	273100	337300	371500	374000	332800

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2002, BY WATER YEAR (WY)

MEAN	3170	3546	3625	3539	3779	4709	7535	12530	13240	7400	4781	3748
MAX	9465	7841	8334	8210	11460	15150	19620	28240	34380	19650	9073	7682
(WY)	1972	1984	1984	1984	1997	1997	1986	1928	1997	1917	1997	1971
MIN	646	827	1584	1515	1599	1401	1559	3261	2432	2213	1342	1119
(WY)	1932	1935	1935	1932	1932	1934	1934	1931	1934	1934	1919	1934

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1915 - 2002
ANNUAL TOTAL	1278230	1311580	
ANNUAL MEAN	3502	3593	5954
HIGHEST ANNUAL MEAN			12330
LOWEST ANNUAL MEAN			1998
HIGHEST DAILY MEAN	6500	May 18	7660
LOWEST DAILY MEAN	1200	Dec 26	1200
ANNUAL SEVEN-DAY MINIMUM	1490	Dec 25	1490
ANNUAL RUNOFF (AC-FT)	2535000	2602000	4314000
10 PERCENT EXCEEDS	5250	6470	12900
50 PERCENT EXCEEDS	3050	2510	4260
90 PERCENT EXCEEDS	2190	1800	2200

e Estimated

SNAKE RIVER MAIN STEM

13060000 SNAKE RIVER NEAR SHELLEY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1970 to September 1981, November 1990 to September 1991, October 1992 to September 1993, October 1994 to September 1995, April to September 2000, April to September 2001, April to September 2002 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 2000, April to September 2001 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 24.3 °C Aug. 8, 2001.

WATER-QUALITY DATA, APRIL TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)
APR									
04...	1640	2090	312	8.8	19.4	9.6	3.7	12.3	128
18...	1300	3100	290	8.5	8.8	10.0	6.3	11.0	115
MAY									
09...	1140	3490	241	8.8	12.6	9.4	7.9	12.2	126
23...	1130	6590	290	8.2	13.2	9.4	9.3	10.2	105
JUN									
06...	1100	5700	234	8.4	18.4	15.7	9.8	9.7	116
20...	0710	6650	326	8.4	--	14.5	4.1	9.7	112
JUL									
03...	1420	4540	313	8.8	36.3	19.7	3.7	11.4	148
18...	0710	5950	316	8.1	18.0	18.9	3.7	8.3	106
AUG									
01...	1110	7240	297	8.5	28.0	18.5	3.8	10.6	133
21...	1210	5700	301	8.6	21.0	17.9	14	12.6	158
SEP									
04...	1130	7150	303	8.3	26.0	18.1	3.0	12.0	150
18...	1210	5590	304	8.8	15.8	15.0	5.6	11.2	131

Date	NITRO-GEN, AM-MONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR							
04...	.038	.28	.253	.010	.032	4.0	22.6
18...	.019	.33	.233	.013	.041	8.0	67.0
MAY							
09...	<.015	.31	.083	<.007	.042	10	94.2
23...	E.009	.25	.173	<.007	.039	13	231
JUN							
06...	.017	.28	.152	.014	.050	11	169
20...	<.015	.19	.111	<.007	.026	8.0	144
JUL							
03...	<.015	S.20	S.070	E.004	.022	5.0	61.3
18...	<.015	.17	.081	<.007	.021	5.0	80.3
AUG							
01...	E.008	.16	.061	.008	.025	6.0	117
21...	<.015	.14	.051	E.004	.025	4.0	61.6
SEP							
04...	<.015	.32	.038	E.006	.022	6.0	116
18...	<.015	.14	.061	.007	.025	3.0	45.3

< -- Less than  
 E -- Estimated value  
 S -- Most probable value

SNAKE RIVER MAIN STEM

1306000 SNAKE RIVER NEAR SHELLEY, ID--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, APRIL TO AUGUST 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/DAY) (80225)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-A-TION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLER TYPE (CODE) (84164)	SAM-PLING METHOD, CODES (82398)	BAG MESH SIZE (MM) (30333)	SED. BEDLOAD SIEVE DIAM. .062 MM (80226)	SED. BEDLOAD SIEVE DIAM. .125 MM (80227)	SED. BEDLOAD SIEVE DIAM. .250 MM (80228)	SED. BEDLOAD SIEVE DIAM. .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. 1.00 MM (80230)
APR													
04...	1732	2090	.02	20	398	1100	1000	.250	24	30	38	77	91
04...	1803	2100	.01	20	398	1100	1000	.250	53	55	64	78	87
MAY													
09...	1215	3490	.01	20	462	1100	1000	.250	10	15	25	83	92
09...	1320	3470	.00	20	462	1100	1000	.250	31	42	56	80	88
JUN													
06...	1115	5700	.02	20	468	1100	1000	.250	.0	.0	17	58	67
06...	1215	5730	.46	20	468	1100	1000	.250	.0	.3	1	12	25
AUG													
01...	1215	7240	.04	20	470	1100	1000	.250	.0	.0	7	63	83
01...	1245	7240	.01	20	470	1100	1000	.250	.0	.0	.0	33	56

Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM (80236)
APR						
04...	100	100	100	100	100	100
04...	100	100	100	100	100	100
MAY						
09...	100	100	100	100	100	100
09...	100	100	100	100	100	100
JUN						
06...	83	100	100	100	100	100
06...	70	100	100	100	100	100
AUG						
01...	93	100	100	100	100	100
01...	89	100	100	100	100	100

SNAKE RIVER MAIN STEM

13062500 SNAKE RIVER AT BLACKFOOT, ID

LOCATION.--Lat 43°11'51", long 112°22'09", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.33, T.2 S., R.35 E., Bingham County, 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 mi<sup>2</sup>.

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 ft<sup>3</sup>/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 ft<sup>3</sup>/s Apr. 29, 1992, gage height, 0.91 ft, caused by irrigation diversions.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,470 ft<sup>3</sup>/s Sept. 9, gage height, 6.47 ft; minimum daily, 838 ft<sup>3</sup>/s May 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2730	2090	e2000	e1600	e1300	e1500	1800	1590	2060	1490	4870	4700
2	2670	2290	e2100	e1500	e1300	e1600	2010	1610	2400	1600	4970	5640
3	2540	2270	e2100	e1400	e1300	e1500	1930	2020	2910	1340	4680	5880
4	2540	2230	e2100	e1600	e1200	e1500	1990	2200	3330	1170	4260	5850
5	2470	2170	e1900	e1700	e1300	e1700	1920	2150	3470	1290	4130	5980
6	2670	2200	e2000	e1700	e1400	e1800	1780	2060	2770	1770	4220	5700
7	2720	2250	e2100	e1900	e1400	e1900	1780	1820	1920	2140	4060	5820
8	2770	2290	e1900	e2000	e1400	e1900	1880	1570	1660	2160	3840	6210
9	2740	2340	e1800	e2100	e1300	e1800	1890	1340	2380	2130	3680	6370
10	2770	2280	e1900	e2100	e1400	e1900	1840	928	2850	2110	3560	6190
11	2770	2230	e1800	e2100	e1500	e1800	1860	838	2820	1970	3610	5650
12	2770	2160	e1500	e2000	e1600	e1900	1890	1130	2250	1780	3780	4900
13	2710	2180	e1700	e1800	e1500	e2000	1970	1350	1530	1800	3570	4870
14	2350	2150	e1600	e1800	e1400	e2000	1840	1170	1150	2130	3100	4770
15	2470	2140	e1500	e1700	e1500	e2000	1840	1290	1280	2240	2960	4570
16	2540	2120	e1700	e1700	e1500	e1900	2300	1540	1820	2320	2780	4220
17	2480	2100	e1600	e1800	e1500	e1900	2660	1530	2080	2490	2820	3920
18	2330	2020	e1800	e1600	e1500	e1800	2570	1390	2080	2800	2890	3790
19	2290	2110	e2000	e1500	e1700	e1700	2300	1610	2470	3040	3190	3600
20	2230	2050	e2100	e1500	e1800	e1800	2040	1780	3160	3370	3180	3390
21	2250	2020	e2000	e1600	e1700	e1900	1850	2050	3570	3850	3160	2740
22	2180	2090	e2100	e1600	e1800	1850	1770	2910	3550	4340	3190	2340
23	2170	2030	e1800	e1500	e1900	1840	1610	3610	3080	4540	3060	2160
24	2190	2230	e1800	e1400	e1800	1920	1550	3710	2890	4600	3020	2070
25	2220	2180	e1300	e1400	e1700	1940	1750	3150	2660	4330	2980	2060
26	2210	2190	e1100	e1600	e1600	2050	1590	2740	1930	4430	3040	1950
27	2140	2090	e1200	e1700	e1500	1990	1530	2480	1580	4670	2990	1940
28	1980	2110	e1200	e1200	e1500	1920	1730	2150	1530	4500	3300	1970
29	2000	2000	e1400	e1400	---	1920	1760	1770	1470	5080	3670	1960
30	1980	e1900	e1500	e1600	---	1830	1750	1600	1470	5070	3970	1850
31	1910	---	e1600	e1500	---	1840	---	1760	---	4730	4040	---
TOTAL	74790	64510	54200	51600	42300	56900	56980	58846	70120	91280	110570	123060
MEAN	2413	2150	1748	1665	1511	1835	1899	1898	2337	2945	3567	4102
MAX	2770	2340	2100	2100	1900	2050	2660	3710	3570	5080	4970	6370
MIN	1910	1900	1100	1200	1200	1500	1530	838	1150	1170	2780	1850
AC-FT	148300	128000	107500	102300	83900	112900	113000	116700	139100	181100	219300	244100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2002, BY WATER YEAR (WY)

MEAN	2647	3537	3560	3707	3886	5257	7033	10150	10480	5062	2925	2577
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	1637	1535	2050	1726	1156	726
(WY)	1982	1982	1989	1989	2002	1988	1991	1988	1988	1985	1981	1981

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1978 - 2002
ANNUAL TOTAL	799789	855156	
ANNUAL MEAN	2191	2343	5074
HIGHEST ANNUAL MEAN			11120
LOWEST ANNUAL MEAN			2019
HIGHEST DAILY MEAN	4570	Sep 8 6370	Sep 9 42600
LOWEST DAILY MEAN	603	Apr 26 838	May 11 35
ANNUAL SEVEN-DAY MINIMUM	1220	Apr 20 1150	May 9 141
ANNUAL RUNOFF (AC-FT)	1586000	1696000	3676000
10 PERCENT EXCEEDS	2740	3880	12300
50 PERCENT EXCEEDS	2190	2000	3030
90 PERCENT EXCEEDS	1600	1480	1500

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, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (PER-CENT) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
DEC	12... 1430	52	404	6.6	-16.5	.0	12.2106		210	62.0	14.1	4.83	.88
FEB	21... 1520	E28	377	7.4	-2.0	.0	8.2 69		200	60.7	12.7	4.45	.70
APR	10... 1420	238	313	7.8	8.6	5.7	9.4 94		160	49.5	8.89	4.28	1.43
	17... 1240	292	298	7.9	2.4	3.5	8.7 83		160	48.5	8.41	4.38	1.50
MAY	08... 1040	149	332	8.4	1.0	4.5	-- 77		180	56.5	10.0	4.17	.73
JUN	05... 1010	80	330	8.6	16.8	14.2	8.7106		180	53.8	11.2	4.02	.47
AUG	28... 1120	16	265	8.0	20.0	15.7	6.4 81		140	32.2	13.5	4.36	.87

Date	CHLO-SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SILICA, RIDE, DIS-SOLVED (MG/L AS F) (00950)	DIS-SOLVED (MG/L AS SIO2) (00955)
DEC	12... 12.2	3.38	E.1	12.2
FEB	21... 12.1	3.08	E.1	11.5
APR	10... 17.4	4.51	<.1	10.1
	17... 21.2	4.65	E.1	11.2
MAY	08... 14.1	3.35	E.1	7.7
JUN	05... 10.3	2.57	.1	7.8
AUG	28... 10.2	2.27	E.1	4.2

< Less than  
E Estimated value



## BLACKFOOT RIVER BASIN

## 13066000 BLACKFOOT RIVER NEAR SHELLEY, ID

LOCATION.--Lat 43°15'46", long 112°02'52", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.7, T.2 S., R.38 E., Bingham County, Hydrologic Unit 17040207, on right bank 1.2 mi downstream from Wolverine Creek, 8.5 mi southeast of Shelley, and at mile 30.5.

DRAINAGE AREA.--909 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1909 to November 1926, May 1927 to September 1950 (irrigation seasons only, monthly means, furnished by the Office of Indian Affairs), August 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,650 ft above NGVD of 1929, from topographic map. Prior to Aug. 19, 1975, at nearby site at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Blackfoot Reservoir (sta 13065000) 38.5 mi upstream. Water diverted from reservoir and several other diversions upstream for irrigation. Water diverted at times from Grays Lake near Wayan (Willow Creek basin).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft<sup>3</sup>/s May 16, 1987, gage height, 9.10 ft, from flash flood; maximum gage height, 19.97 ft, Nov. 29, 1975, backwater from ice; minimum observed, 15 ft<sup>3</sup>/s Jan. 23, 1919, gage height, 2.83 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 765 ft<sup>3</sup>/s May 19, gage height, 7.07 ft; minimum daily, 40 ft<sup>3</sup>/s Dec. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	96	e60	e70	e60	e50	103	117	489	639	452	430
2	130	95	e70	e60	e60	e50	107	118	596	569	429	428
3	118	94	e70	e70	e50	e50	107	118	594	551	385	424
4	107	94	e70	e70	e50	e60	116	114	508	549	360	424
5	110	94	e70	e70	e60	e70	123	112	503	545	362	419
6	112	98	e70	e80	e60	e80	139	111	503	540	357	428
7	112	98	e60	e80	e70	e70	137	110	503	542	357	464
8	111	94	e60	80	e70	e60	139	108	503	538	353	375
9	111	92	e50	80	e60	e60	140	107	590	510	385	305
10	115	92	e50	77	e60	e70	131	107	590	502	430	246
11	124	92	e50	75	e70	e80	127	105	509	494	428	174
12	113	93	e40	75	e60	e80	120	101	502	624	421	117
13	91	92	e50	e70	e60	e70	116	98	501	659	418	115
14	92	92	e60	e70	e60	e60	123	177	584	656	419	110
15	91	90	e50	e60	e60	e60	150	429	580	653	451	109
16	89	88	e70	e60	e70	e70	178	441	579	651	463	112
17	92	88	e80	e70	e80	e70	151	610	579	648	459	111
18	91	89	e80	e70	e70	e70	142	634	587	653	456	114
19	91	88	e90	e70	e70	e70	137	743	668	654	458	112
20	92	88	e90	e70	e70	e80	135	732	669	652	455	113
21	93	90	e80	e70	e70	84	133	706	663	649	446	113
22	94	97	e70	e70	e80	87	128	640	642	640	444	115
23	96	93	e60	e70	e80	92	131	490	578	610	446	116
24	94	e80	e60	e70	e70	96	124	304	537	592	445	116
25	91	e80	e70	e80	e50	89	117	288	527	569	441	116
26	96	e60	e70	e80	e50	87	115	289	522	559	442	115
27	93	e50	e70	e70	e60	93	115	282	489	548	438	116
28	93	e50	e80	e60	e60	93	112	276	478	546	424	117
29	93	e60	e90	e50	---	95	111	234	533	540	433	118
30	93	e60	e80	e50	---	98	113	495	585	500	436	122
31	102	---	e80	e60	---	103	---	496	---	483	434	---
TOTAL	3161	2567	2100	2157	1790	2347	3820	9692	16691	18065	13127	6294
MEAN	102.0	85.57	67.74	69.58	63.93	75.71	127.3	312.6	556.4	582.7	423.5	209.8
MAX	131	98	90	80	80	103	178	743	669	659	463	464
MIN	89	50	40	50	50	50	103	98	478	483	353	109
AC-FT	6270	5090	4170	4280	3550	4660	7580	19220	33110	35830	26040	12480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2002, BY WATER YEAR (WY)

MEAN	219.2	166.6	133.0	128.1	146.1	199.5	328.3	580.7	760.0	743.9	580.1	409.8
MAX	626	563	760	783	1065	966	1042	1832	1852	1349	959	827
(WY)	1915	1985	1984	1984	1997	1986	1913	1986	1984	1984	1922	1977
MIN	64.3	49.7	43.0	40.6	45.0	69.1	93.9	132	138	89.1	188	116
(WY)	1993	1993	1993	1993	1993	1992	1991	1991	1925	1910	1993	1925

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1909 - 2002
ANNUAL TOTAL	103416	81811	
ANNUAL MEAN	283.3	224.1	370.6
HIGHEST ANNUAL MEAN			807
LOWEST ANNUAL MEAN			143
HIGHEST DAILY MEAN	1010	743	2020
LOWEST DAILY MEAN	40	40	27
ANNUAL SEVEN-DAY MINIMUM	50	50	34
ANNUAL RUNOFF (AC-FT)	205100	162300	268500
10 PERCENT EXCEEDS	675	569	847
50 PERCENT EXCEEDS	103	110	232
90 PERCENT EXCEEDS	80	60	69

e Estimated

BLACKFOOT RIVER BASIN

13068495 BLACKFOOT RIVER BYPASS NEAR BLACKFOOT, ID

LOCATION.--Lat 43°10'15", long 112°23'16", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.8, T.3 S., R.35 E., Bingham County, 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 good except for estimated daily discharges, which are poor. Station equipment includes satellite telemetry. Flow regulated by Blackfoot Reservoir (see sta 13065000). Diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,460 ft<sup>3</sup>/s May 5, 1974; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 175 ft<sup>3</sup>/s May 23; no flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.12	0.00	0.00	0.00	5.2	0.00	
2	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.44	0.00	0.00	0.00	1.6	0.00	
3	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.22	0.00	4.8	0.00	2.3	0.00	
4	0.00	0.00	e0.00	e0.00	e2.0	e0.00	1.2	0.02	8.1	0.00	2.0	0.00	
5	0.00	0.00	e0.00	e0.00	e0.50	e0.00	2.2	1.6	8.6	0.00	3.0	0.00	
6	0.00	0.00	e0.00	e0.00	e0.50	e0.10	5.8	2.4	1.5	0.00	3.5	0.00	
7	0.00	0.00	e0.00	e0.00	e0.10	e0.50	8.0	0.70	0.00	0.00	0.00	1.6	
8	0.00	0.00	e0.00	e0.00	e0.00	e0.20	8.0	7.3	0.07	0.00	0.00	5.2	
9	104	0.00	e0.00	0.42	e0.00	e0.00	11	6.0	10	0.00	0.00	18	
10	113	0.00	e0.00	0.00	e0.00	e0.00	9.2	0.00	38	0.00	0.00	30	
11	28	0.00	e0.00	0.00	e0.00	e0.00	7.2	0.00	47	0.00	0.00	23	
12	14	0.00	e0.00	0.00	e0.00	e0.00	6.4	0.00	26	0.00	0.00	8.4	
13	2.1	0.00	e0.00	e1.0	e0.00	e0.10	3.3	0.00	4.8	0.00	0.00	0.43	
14	0.00	0.00	e0.00	e0.20	e0.00	e0.10	2.5	0.00	0.00	0.00	0.00	0.00	
15	0.00	0.00	e0.00	e0.00	e0.00	e0.00	7.1	0.00	0.00	0.00	0.00	0.00	
16	0.00	0.00	e0.00	e0.00	e0.00	e0.00	33	0.00	0.00	0.00	0.00	0.00	
17	0.00	3.3	e0.00	e0.00	e0.00	e0.00	26	0.00	0.00	0.00	0.00	0.00	
18	0.00	0.08	e0.00	e0.00	e0.00	e0.00	22	0.00	0.00	0.00	0.00	0.00	
19	0.00	0.37	e0.00	e1.0	e0.00	e0.00	16	0.00	0.00	0.00	0.00	0.00	
20	0.00	0.07	e0.00	e0.00	e0.00	e0.10	17	0.00	1.00	0.00	0.00	0.00	
21	0.00	0.20	e0.00	e0.00	e0.00	e1.0	13	13	3.7	0.00	0.00	0.00	
22	0.00	2.2	e0.00	e0.00	e0.00	e2.5	11	103	13	0.00	0.00	0.00	
23	0.00	3.2	e0.00	e0.50	e0.00	e3.0	7.5	175	30	0.07	0.00	0.00	
24	0.00	e2.0	e0.00	e0.50	e0.00	4.9	8.5	173	53	0.00	0.00	0.00	
25	0.00	e0.50	e0.00	e0.10	e0.00	2.3	2.8	78	46	0.00	0.00	0.00	
26	0.06	e0.50	e0.00	e0.00	e0.00	0.05	1.5	32	12	0.00	0.00	0.00	
27	0.00	e0.00	e0.00	e0.00	e0.00	0.00	4.1	33	1.2	0.00	0.00	0.00	
28	0.00	e0.00	e0.00	e0.00	e0.00	0.03	2.5	4.0	0.00	0.10	0.00	0.00	
29	0.00	e0.50	e0.00	e0.00	---	0.21	0.64	0.00	0.00	0.18	0.00	0.00	
30	0.00	e0.00	e0.00	e0.00	---	0.16	0.00	0.00	0.00	3.8	0.00	2.6	
31	0.01	---	e0.00	e0.00	---	0.31	---	0.00	---	3.1	0.00	---	
TOTAL	261.17	12.92	0.00	3.72	3.10	15.56	238.22	629.02	308.77	7.25	17.60	89.23	
MEAN	8.425	0.431	0.000	0.120	0.111	0.502	7.941	20.29	10.29	0.234	0.568	2.974	
MAX	113	3.3	0.00	1.0	2.0	4.9	33	175	53	3.8	5.2	30	
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	518	26	0.00	7.4	6.1	31	473	1250	612	14	35	177	
CAL YR 2001	TOTAL 1603.86	MEAN 4.394	MAX 113	MIN 0.00	AC-FT 3180								
WTR YR 2002	TOTAL 1586.56	MEAN 4.347	MAX 175	MIN 0.00	AC-FT 3150								

e Estimated

## BLACKFOOT RIVER BASIN

## 13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID

LOCATION.--Lat 43°07'50", long 112°28'36", near E $\frac{1}{4}$  corner, sec.28, T.3 S., R.34 E., Bingham County, 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 mi<sup>2</sup>, 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, 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 ft<sup>3</sup>/s Feb. 11, 1962, gage height, 7.68 ft, prior to Blackfoot River Bypass channel diversion. Since 1964, river only, maximum discharge, 740 ft<sup>3</sup>/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 (1913-2002), maximum discharge, 2,130 ft<sup>3</sup>/s May 5, 1974; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 244 ft<sup>3</sup>/s Oct. 9, gage height, 3.18 ft; no flow July 6, 14, Aug. 22. Combined flow, maximum daily discharge, 390 ft<sup>3</sup>/s May 23; no flow July 6, 14, Aug. 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	91	e50	e60	e50	e44	84	52	1.2	11	68	16
2	4.2	89	e60	e55	e50	e44	87	37	5.3	4.6	62	11
3	7.4	85	e60	e60	e40	e44	89	23	51	0.91	59	13
4	2.0	87	e60	e60	e44	e50	91	25	62	1.7	65	17
5	8.8	86	e60	e60	e50	e60	95	51	68	1.8	75	21
6	51	88	e60	e70	e50	e70	102	61	55	0.00	78	24
7	46	93	e50	e70	e50	e60	108	73	31	2.6	46	58
8	35	89	e50	e70	e60	e50	107	95	22	20	30	69
9	128	86	e44	e70	e50	e50	110	79	94	14	10	85
10	187	85	e42	e65	e50	e60	110	30	128	1.3	5.1	88
11	145	85	e42	e60	e60	e70	106	4.4	141	0.13	18	103
12	122	84	e36	e60	e50	e70	104	23	111	4.4	26	89
13	103	83	e44	e60	e50	e60	98	26	63	0.86	11	67
14	88	81	e50	e60	e50	e50	95	8.4	0.14	0.00	6.3	33
15	89	81	e42	e55	e50	e50	105	5.5	10	4.0	2.2	17
16	88	83	e55	e55	e60	e60	131	3.9	13	1.3	0.62	2.5
17	80	88	e70	e60	e70	e60	128	0.84	17	2.7	0.29	7.9
18	88	86	e70	e60	e60	e60	121	1.9	20	1.4	0.05	10
19	87	87	e80	e60	e60	e60	117	5.6	21	2.8	3.5	5.0
20	91	86	e70	e60	e60	e70	118	8.8	56	5.6	0.34	2.7
21	93	86	e70	e60	e60	e75	115	57	89	15	1.8	5.2
22	93	93	e60	e60	e70	e80	111	163	96	33	0.00	3.9
23	92	e80	e55	e60	e70	e80	106	215	122	40	1.9	5.8
24	96	e75	e55	e60	e60	e80	108	210	137	27	1.1	21
25	90	e70	e60	e70	e44	e80	95	128	126	20	0.56	19
26	85	e50	e60	e70	e44	e80	94	96	71	38	0.52	14
27	82	e44	e60	e60	e50	81	98	140	35	51	1.9	0.05
28	84	e42	e70	e50	e50	83	96	76	20	44	0.74	1.5
29	82	e50	e80	e44	---	82	79	1.1	13	70	0.96	26
30	80	e50	e70	e44	---	83	24	3.7	10	77	10	43
31	90	---	e70	e50	---	84	---	4.4	---	63	9.0	---
TOTAL	2420.5	2363	1805	1858	1522	2030	3032	1708.54	1688.64	559.10	594.88	878.55
MEAN	78.08	78.77	58.23	59.94	54.36	65.48	101.1	55.11	56.29	18.04	19.19	29.29
MAX	187	93	80	70	70	84	131	215	141	77	78	103
MIN	2.0	42	36	44	40	44	24	0.84	0.14	0.00	0.00	0.05
AC-FT	4800	4690	3580	3690	3020	4030	6010	3390	3350	1110	1180	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)<sup>a</sup>

	2002	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MEAN	202.0	174.8	112.3	107.0	120.1	155.5	197.5	233.3	183.0	116.6	132.6	132.8	
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	54.6	50.2	32.6	18.0	0.26	1.11	
(WY)	1993	1993	1993	1993	1993	1967	1993	2001	1977	2002	1992	1992	

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	<sup>a</sup> WATER YEARS 1964 - 2002
ANNUAL TOTAL	22621.00	20460.21	
ANNUAL MEAN	61.98	56.06	155.7
HIGHEST ANNUAL MEAN			298
LOWEST ANNUAL MEAN			48.7
HIGHEST DAILY MEAN	194	215	733
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.25	0.89	0.00
ANNUAL RUNOFF (AC-FT)	44870	40580	112800
10 PERCENT EXCEEDS	104	97	302
50 PERCENT EXCEEDS	75	60	128
90 PERCENT EXCEEDS	2.9	2.8	45

<sup>a</sup> 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 (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.

EXTREMES FOR CURRENT YEAR.--

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

WATER-QUALITY DATA, APRIL TO JUNE 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-AIRE (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SOLVED CENT-SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
APR 19...	1340	114	500	8.4	6.6	6.6	19	10.8	104	134
MAY 16...	1030	9.6	316	8.9	15.4	12.6	6.4	10.6	117	S33
JUN 19...	1440	32	361	8.9	20.8	21.4	4.8	11.0	146	143

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR 19...	E.010	.53	.039	.007	.079	36	11.1
MAY 16...	E.008	.42	<.013	<.007	.043	4.0	.10
JUN 19...	<.015	.24	<.013	<.007	.024	4.0	.35

< Less than  
E Estimated value  
S Most probable value

WATER TEMPERATURE, DEGREES CELSIUS, DECEMBER 2001 TO NOVEMBER 2002

DAY	DECEMBER			JANUARY			FEBRUARY			MAX	MIN	MEAN
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN			
1	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
3	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
4	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
5	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
6	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
7	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
8	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
9	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
10	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
11	---	---	---	0.1	0.0	0	0.1	0.0	0.0	0.0	0.0	0.0
12	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
13	---	---	---	0.1	0.0	0	0.1	0.0	0.0	0.1	0.0	0.0
14	---	---	---	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.1
15	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.8	0.0	0.9
16	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	5.0	0.5	2.7
17	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.1	3.3
18	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	3.6	1.1	2.3
19	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	2.4	0.0	1.1
20	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	5.2	0.3	2.8
21	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	8.1	2.2	4.9
22	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	8.9	3.6	6.1
23	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	8.1	4.9	6.2
24	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	5.7	3.2	4.5
25	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	4.7	2.5	3.4
26	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	8.0	2.7	4.9
27	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	9.2	4.3	6.2
28	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	3.6	5.5
29	0.1	0.0	0.0	0.0	0.0	0.0	---	---	---	10.0	3.8	6.5
30	0.1	0.0	0.0	0.0	0.0	0.0	---	---	---	11.1	5.2	7.8
31	0.1	0.0	0.0	0.1	0.0	0.0	---	---	---	12.5	6.3	9.1
MONTH	---	---	---	0.1	0.0	0.0	0.1	0.0	0.0	12.5	0.0	2.5

BLACKFOOT RIVER BASIN  
13068500 BLACKFOOT RIVER NEAR BLACKFOOT, ID--Continued

WATER TEMPERATURE, in (DEGREES C), YEAR DECEMBER 2001 TO NOVEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	APRIL			MAY			JUNE			JULY		
1	12.3	6.7	9.3	15.9	9.8	12.8	26.4	18.8	22.7	27.3	19.8	22.8
2	11.5	5.7	8.5	18.1	10.0	13.4	20.8	15.8	17.9	28.0	15.3	21.4
3	13.1	6.6	9.7	16.2	9.7	12.4	21.6	13.6	17.1	27.1	20.0	23.5
4	13.8	7.7	10.7	15.7	7.7	11.2	22.1	14.7	18.2	28.2	17.2	22.9
5	15.3	8.7	11.9	13.5	9.2	11.2	22.3	15.3	18.6	30.4	17.7	24.0
6	14.2	10.5	12.1	15.1	8.7	11.7	22.1	15.6	18.5	28.9	21.1	25.0
7	13.1	8.1	10.5	13.1	6.7	10.3	21.9	14.9	18.0	32.3	19.8	25.4
8	13.1	8.1	10.3	11.1	5.3	7.9	18.8	12.4	16.0	27.4	20.1	23.7
9	12.1	9.1	10.5	11.5	6.1	8.8	15.8	12.1	13.3	28.7	17.7	22.8
10	12.5	8.7	10.3	13.1	6.7	9.8	15.3	10.5	12.6	32.3	18.4	24.9
11	11.5	8.3	9.9	20.4	7.1	13.1	17.5	10.8	13.8	32.9	20.6	26.7
12	13.4	8.4	10.5	18.8	10.1	14.3	19.3	12.2	15.5	34.1	20.6	27.5
13	13.8	8.9	11.1	19.4	10.8	15.0	23.3	13.3	17.7	32.5	22.1	27.2
14	14.8	10.9	12.5	19.6	12.6	15.8	27.3	14.5	20.7	31.9	22.1	26.6
15	12.3	5.0	9.1	19.2	8.7	13.4	25.9	17.5	21.7	31.7	21.4	26.3
16	6.9	2.8	4.8	20.6	8.4	14.2	27.4	18.0	22.2	26.7	21.6	24.0
17	7.8	4.7	5.9	22.9	9.6	16.0	23.3	17.2	20.2	32.7	20.3	26.3
18	10.1	5.3	7.3	25.0	13.5	18.7	20.8	16.1	18.1	30.0	22.6	26.4
19	9.7	6.0	7.9	22.8	13.6	18.6	22.8	13.3	18.1	28.2	21.9	24.9
20	11.1	5.8	8.2	20.3	14.5	17.5	21.1	15.5	17.9	29.4	20.0	24.4
21	11.2	6.3	8.6	15.8	11.3	12.7	23.1	15.3	18.8	28.7	20.0	24.1
22	13.5	7.7	10.3	12.8	10.4	11.3	20.3	16.8	18.5	25.0	19.8	22.6
23	11.5	8.0	9.8	12.8	9.4	10.9	23.1	16.1	19.3	25.7	18.8	22.1
24	12.1	5.7	8.7	14.5	11.0	12.4	24.0	17.7	20.5	28.3	19.3	23.4
25	14.8	7.5	10.9	16.8	11.8	13.9	25.9	18.2	21.7	25.2	20.0	21.6
26	14.9	9.8	12.1	16.9	12.4	14.3	27.8	19.5	22.9	24.1	17.7	20.6
27	12.8	10.1	11.7	19.0	13.0	15.5	28.0	19.2	23.2	23.3	17.7	20.2
28	14.8	9.7	11.8	21.6	13.9	17.1	25.9	19.5	22.9	24.0	17.1	20.3
29	16.8	10.1	13.3	24.5	15.8	19.2	27.4	20.9	24.0	24.0	17.4	20.3
30	19.9	11.8	15.4	28.5	16.9	22.1	28.7	19.5	23.8	24.3	17.9	20.7
31	---	---	---	29.8	18.4	23.8	---	---	---	22.6	18.5	20.4
MONTH	19.9	2.8	10.1	29.8	5.3	14.2	28.7	10.5	19.1	34.1	15.3	23.6

WATER TEMPERATURE, in (DEGREES C), YEAR DECEMBER 2001 TO NOVEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	AUGUST			SEPTEMBER			OCTOBER			NOVEMBER		
1	22.6	16.4	19.3	22.1	15.8	18.6	9.9	8.4	8.9	2.9	0.2	1.3
2	22.4	17.7	19.8	23.4	14.5	18.5	10.8	7.1	8.6	1.5	-0.1	0.4
3	22.4	17.4	19.7	22.6	15.3	18.8	9.3	6.8	8.2	1.2	-0.1	0.3
4	23.8	17.5	20.4	22.4	16.4	19.5	9.6	7.8	8.4	2.1	-0.1	0.6
5	23.8	16.9	20.2	21.3	17.7	19.4	10.8	7.9	9.1	3.6	-0.1	1.4
6	23.6	17.4	20.4	20.0	17.1	18.5	12.1	7.9	9.8	4.5	0.7	2.3
7	22.6	16.8	19.8	18.4	15.8	17.1	12.8	8.7	10.5	3.6	1.4	2.5
8	20.6	15.5	18.6	20.0	15.3	17.2	13.0	9.0	10.9	5.4	2.5	3.7
9	25.3	14.9	19.6	19.8	14.9	17.1	12.8	8.8	10.7	4.5	2.9	3.6
10	25.3	14.4	19.6	19.8	14.1	16.7	12.4	9.1	10.5	4.3	2.3	3.2
11	24.0	16.4	19.4	19.6	14.7	17.1	10.8	8.4	9.7	4.8	2.6	3.5
12	24.0	16.1	19.8	19.5	15.6	17.5	8.8	6.5	7.7	4.5	2.5	3.5
13	26.0	18.2	21.4	20.8	14.9	17.4	10.1	5.9	7.7	5.9	3.2	4.3
14	24.6	16.6	20.1	21.4	14.5	17.9	10.5	6.4	8.0	5.4	3.4	4.2
15	24.3	15.5	19.6	22.3	15.2	18.5	10.5	6.8	8.4	4.6	2.1	3.4
16	22.9	15.6	18.5	20.3	14.2	17.4	11.0	7.3	8.7	5.3	2.6	3.8
17	20.9	13.6	17.3	16.9	13.5	15.0	11.3	7.1	8.8	5.1	2.9	3.8
18	22.4	14.9	18.4	17.9	12.4	14.3	11.1	7.4	8.9	---	---	---
19	24.5	13.8	19.4	20.4	11.1	14.9	11.0	7.3	8.8	---	---	---
20	23.3	16.6	20.3	19.5	10.4	14.5	10.7	7.3	8.6	---	---	---
21	22.9	14.4	18.7	18.2	9.3	13.2	10.4	7.1	8.4	---	---	---
22	20.9	15.5	18.2	19.6	8.4	13.1	9.4	7.8	8.4	---	---	---
23	22.1	15.0	18.7	20.0	8.8	13.7	9.6	6.8	7.9	---	---	---
24	23.3	15.8	19.2	15.8	11.1	14.0	9.6	7.3	8.2	---	---	---
25	24.1	15.2	19.5	17.7	12.1	14.9	8.5	5.6	6.9	---	---	---
26	21.6	16.6	19.1	17.2	11.6	14.4	8.7	5.4	6.7	---	---	---
27	25.0	15.0	19.5	13.8	10.4	12.2	8.2	5.3	6.4	---	---	---
28	21.3	15.2	18.6	15.6	9.0	12.1	6.1	4.6	5.3	---	---	---
29	22.3	15.8	18.7	13.3	10.2	11.7	6.1	3.2	4.9	---	---	---
30	24.6	14.9	18.8	12.2	8.4	10.2	3.7	2.3	3.0	---	---	---
31	24.0	15.0	19.0	---	---	---	4.0	0.9	2.3	---	---	---
MONTH	26.0	13.6	19.3	23.4	8.4	15.8	13.0	0.9	8.0	---	---	---

BLACKFOOT RIVER BASIN

13068501 COMBINATION BLACKFOOT RIVER AND BYPASS CHANNEL NEAR BLACKFOOT, ID

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	91	e50	e60	e50	e44	84	52	1.2	11	73	16
2	4.2	89	e60	e55	e50	e44	87	37	5.3	4.6	64	11
3	7.4	85	e60	e60	e40	e44	89	23	56	0.91	62	13
4	2.0	87	e60	e60	e46	e50	92	25	70	1.7	67	17
5	8.8	86	e60	e60	e50	e60	97	53	76	1.8	78	21
6	51	88	e60	e70	e50	e70	108	63	56	0.00	81	24
7	46	93	e50	e70	e60	e60	116	73	31	2.6	46	60
8	35	89	e50	e70	e60	e50	115	103	22	20	30	74
9	231	86	e44	e70	e50	e50	121	85	104	14	10	103
10	300	85	e42	e65	e50	e60	119	30	166	1.3	5.1	118
11	173	85	e42	e60	e60	e70	113	4.4	187	0.13	18	126
12	136	84	e36	e60	e50	e70	111	23	137	4.4	26	97
13	105	83	e44	e61	e50	e60	102	26	68	0.86	11	68
14	88	81	e50	e60	e50	e50	98	8.4	0.14	0.00	6.3	33
15	89	81	e42	e55	e50	e50	112	5.5	10	4.0	2.2	17
16	88	83	e55	e55	e60	e60	163	3.9	13	1.3	0.62	2.5
17	80	92	e70	e60	e70	e60	154	0.84	17	2.7	0.29	7.9
18	88	86	e70	e60	e60	e60	143	1.9	20	1.4	0.05	10
19	87	87	e80	e61	e60	e60	133	5.6	21	2.8	3.5	5.0
20	91	86	e70	e60	e60	e70	135	8.8	57	5.6	0.34	2.7
21	93	87	e70	e60	e60	e76	128	70	93	15	1.8	5.2
22	93	95	e60	e60	e70	e82	122	266	109	33	0.00	3.9
23	92	e83	e55	e60	e70	e83	113	390	152	40	1.9	5.8
24	96	e77	e55	e60	e60	e85	117	383	189	27	1.1	21
25	90	e70	e60	e70	e44	e82	98	206	172	20	0.56	19
26	85	e50	e60	e70	e44	e80	95	127	83	38	0.52	14
27	82	e44	e60	e60	e50	81	102	173	36	51	1.9	0.05
28	84	e42	e70	e50	e50	83	99	80	20	44	0.74	1.5
29	82	e50	e80	e44	---	83	79	1.1	13	70	0.96	26
30	80	e50	e70	e44	---	83	24	3.7	10	81	10	45
31	90	---	e70	e50	---	85	---	4.4	---	66	9.0	---
TOTAL	2680.5	2375	1805	1860	1524	2045	3269	2336.54	1994.64	566.10	612.88	967.55
MEAN	86.47	79.17	58.23	60.00	54.43	65.97	109.0	75.37	66.49	18.26	19.77	32.25
MAX	300	95	80	70	70	85	163	390	189	81	81	126
MIN	2.0	42	36	44	40	44	24	0.84	0.14	0.00	0.00	0.05
AC-FT	5320	4710	3580	3690	3020	4060	6480	4630	3960	1120	1220	1920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MEAN	274.2	273.3	162.9	137.7	159.3	209.0	323.8	376.2	234.5	119.7	147.6	139.8
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	57.3	0.77	0.000	0.000	0.000	0.000
(WY)	1935	1935	1993	1932	1932	1932	1934	1934	1934	1934	1934	1934

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1913 - 2002

ANNUAL TOTAL	24221.00	22036.21		
ANNUAL MEAN	66.36	60.37		
HIGHEST ANNUAL MEAN			215.9	
LOWEST ANNUAL MEAN			751	1984
HIGHEST DAILY MEAN	300	Oct 10	41.1	1935
LOWEST DAILY MEAN	0.00	Sep 2	2130	May 5 1974
ANNUAL SEVEN-DAY MINIMUM	0.25	Aug 30	0.00	Jul 6 1919
ANNUAL RUNOFF (AC-FT)	48040		0.89	Aug 20 1919
10 PERCENT EXCEEDS	116		156400	
50 PERCENT EXCEEDS	75		510	
90 PERCENT EXCEEDS	2.9		135	
			20	

e Estimated



SNAKE RIVER MAIN STEM  
13069500 SNAKE RIVER NEAR BLACKFOOT, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-1973, 1975-1981, July 1989 to September 1996, April to September 1998, April to September 2000, April to September 2001, April to September 2002 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June to September 1994, May to September 1996, May to September 1998, April to September 2000, April to September 2001 (discontinued).

INSTUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 23.5 °C July 3, 2001.

WATER-QUALITY DATA, APRIL TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
APR									
04...	1220	1880	343	8.2	14.3	9.7	4.9	9.6	112
18...	1010	2390	334	8.3	6.8	7.5	10	9.6	94
MAY									
09...	0850	1270	288	8.2	8.8	8.6	5.0	9.6	96
23...	0830	3270	330	8.1	5.2	10.3	22	8.8	92
JUN									
06...	0800	2740	276	8.2	16.8	15.4	6.8	8.3	97
20...	0940	2420	336	8.6	16.4	15.7	4.3	8.7	103
JUL									
03...	1210	1080	338	8.4	32.7	20.3	4.6	9.6	125
18...	0920	2240	323	8.2	26.0	20.7	13	7.8	102
AUG									
01...	0800	4290	319	8.0	12.8	16.9	4.5	8.0	96
21...	0920	2650	324	8.1	18.2	16.7	2.9	10.0	121
SEP									
04...	0910	5130	310	7.8	17.0	16.9	5.3	7.6	92
18...	0920	3500	329	8.0	10.0	14.2	3.0	7.7	88

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR							
04...	E.014	.37	.242	E.006	.049	18	91.4
18...	<.015	.42	.248	.007	.086	31	200
MAY							
09...	<.015	.45	.128	E.004	.053	12	41.1
23...	<.015	.57	.125	<.007	.096	79	697
JUN							
06...	<.015	.46	.088	<.007	.048	25	185
20...	<.015	.44	.037	<.007	.042	20	131
JUL							
03...	.015	.23	.088	.007	.024	6.0	17.5
18...	<.015	.34	.058	<.007	.034	17	103
AUG							
01...	<.015	.20	.036	<.007	.029	28	324
21...	<.015	.18	.044	<.007	.024	6.0	42.9
SEP							
04...	<.015	.24	.023	<.007	.029	33	457
18...	<.015	.17	.034	<.007	.022	6.0	56.7

< -- Less than  
E -- Estimated value



SNAKE RIVER MAIN STEM  
13069500 SNAKE RIVER NEAR BLACKFOOT, ID--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, APRIL TO AUGUST 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/DAY) (80225)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLER TYPE (CODE) (84164)	SAM-PLING METHOD, CODES (82398)	BAG MESH SIZE (MM) (30333)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (062 MM) (80226)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (125 MM) (80227)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (250 MM) (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (500 MM) (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (1.00 MM) (80230)
APR													
04...	1341	1880	.07	20	270	1100	1000	.250	2	10	31	78	89
04...	1429	1890	.21	20	270	1100	1000	.250	1	2	8	90	96
MAY													
09...	0920	1270	.02	20	262	1100	1000	.250	1	3	17	81	96
09...	1022	1290	.04	20	262	1000	1000	.250	2	5	26	86	98
JUN													
06...	0845	2720	.54	20	260	1100	1000	.250	.2	.5	15	92	99
06...	0945	2710	.41	20	260	1100	1000	.250	.0	.2	14	97	99
AUG													
01...	0840	4320	8.7	20	287	1100	1000	.250	.1	.4	7	73	98
01...	0915	4340	9.9	20	287	1100	1000	.250	.0	.1	.6	28	98

Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM (80236)
APR						
04...	94	96	100	100	100	100
04...	99	100	100	100	100	100
MAY						
09...	98	100	100	100	100	100
09...	100	100	100	100	100	100
JUN						
06...	100	100	100	100	100	100
06...	100	100	100	100	100	100
AUG						
01...	100	100	100	100	100	100
01...	99	100	100	100	100	100

PORTNEUF RIVER BASIN

13073000 PORTNEUF RIVER AT TOPAZ, ID

LOCATION.--Lat 42°37'32", long 112°05'17", in SE<sup>1</sup>/<sub>4</sub> sec.23, T.9 S., R.37 E., Bannock County, 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 mi<sup>2</sup>, 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 good. 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 ft<sup>3</sup>/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 ft<sup>3</sup>/s Dec. 23, 1964, gage height, 6.00 ft; minimum, 33 ft<sup>3</sup>/s Sept. 25, 1994, gage height, 2.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft<sup>3</sup>/s May 22, gage height, 3.42 ft; minimum daily, 49 ft<sup>3</sup>/s Oct. 1.

DAY	DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	80	105	104	102	97	191	190	254	202	94	86
2	50	76	112	102	100	98	190	188	246	202	95	84
3	51	77	115	104	97	96	174	177	229	203	94	84
4	51	78	110	104	98	97	170	176	214	199	94	84
5	51	79	107	102	99	98	168	176	216	194	92	84
6	51	84	110	106	98	102	168	172	212	194	93	93
7	52	93	105	107	98	110	169	173	223	193	92	108
8	52	87	98	109	102	106	167	168	221	191	92	90
9	53	85	98	110	94	99	165	158	235	189	90	91
10	55	86	98	107	90	103	170	155	234	185	91	87
11	57	88	102	107	96	102	172	148	217	188	88	87
12	59	87	101	106	98	115	168	141	200	187	88	86
13	57	87	102	104	96	129	168	150	193	187	88	88
14	56	87	110	103	98	112	178	178	193	188	87	86
15	56	85	103	108	96	107	230	180	194	190	86	86
16	56	86	100	104	95	111	233	201	191	190	87	84
17	58	86	104	106	98	113	217	216	190	187	84	77
18	58	86	104	107	98	108	196	222	201	188	85	76
19	63	86	104	104	99	108	192	238	203	187	85	71
20	57	86	104	109	102	109	198	250	198	185	84	70
21	57	91	103	108	99	116	188	277	193	183	83	65
22	58	102	104	110	100	122	179	300	192	178	85	70
23	62	100	98	107	102	130	180	258	183	165	83	63
24	62	94	97	104	106	141	175	230	168	134	84	64
25	63	98	97	102	98	134	173	218	165	124	87	66
26	65	101	99	107	95	132	174	222	182	110	87	66
27	67	104	102	107	99	142	178	229	197	104	88	68
28	69	96	104	108	103	151	173	234	200	99	88	68
29	70	108	103	97	---	170	169	241	205	99	88	69
30	71	109	102	97	---	170	175	249	204	96	87	69
31	90	---	102	104	---	180	---	266	---	96	87	---
TOTAL	1826	2692	3203	3264	2756	3708	5448	6381	6153	5217	2736	2370
MEAN	58.90	89.73	103.3	105.3	98.43	119.6	181.6	205.8	205.1	168.3	88.26	79.00
MAX	90	109	115	110	106	180	233	300	254	203	95	108
MIN	49	76	97	97	90	96	165	141	165	96	83	63
AC-FT	3620	5340	6350	6470	5470	7350	10810	12660	12200	10350	5430	4700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)												
MEAN	140.3	152.7	152.5	152.6	170.3	205.6	265.2	346.2	268.3	202.3	174.2	147.2
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	81.6	74.5	61.3
(WY)	1993	1993	1993	1993	1993	1964	1992	1961	1934	1992	1992	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1913 - 2002	
ANNUAL TOTAL	43110		45754			
ANNUAL MEAN	118.1		125.4		198.1	
HIGHEST ANNUAL MEAN					362	
LOWEST ANNUAL MEAN					114	
HIGHEST DAILY MEAN	244	May 16	300	May 22	3250	Feb 12 1962
LOWEST DAILY MEAN	48	Sep 22	49	Oct 1	46	Sep 25 1994
ANNUAL SEVEN-DAY MINIMUM	49	Sep 19	51	Oct 1	49	Sep 21 1994
ANNUAL RUNOFF (AC-FT)	85510		90750		143500	
10 PERCENT EXCEEDS	184		201		300	
50 PERCENT EXCEEDS	109		104		174	
90 PERCENT EXCEEDS	62		69		110	

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 (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 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.5 °C Aug. 3-4, 1994; minimum, 0.1 °C Dec. 25-26, 2001, Jan. 30, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.7 °C July 14-15; minimum, 0.1 °C Dec. 25-26, Jan. 30.

WATER-QUALITY DATA, APRIL TO JUNE 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, SOLVED, 0.7 UM-MF (COLS./100 ML) (31625)
APR 25...	1610	172	775	8.4	19.2	13.6	12	10.8	125	S35
MAY 13...	1210	121	735	8.2	20.4	14.9	6.1	11.3	133	S12
JUN 18...	1330	205	628	8.5	23.6	18.8	5.7	11.4	148	121

Date	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 SOLVED (MG/L AS N) (00631)	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR 25...	.025	.40	.740	.013	.060	51	23.7
MAY 13...	E.014	.25	.468	E.006	.030	23	7.5
JUN 18...	<.015	.31	.348	.009	.050	79	43.7

< Less than  
E Estimated value  
S Most probable value

WATER TEMPERATURE, DEGREES CELSIUS, DECEMBER 2001 TO NOVEMBER 2002

DAY	DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	5.4	3.6	4.5	4.2	1.4	2.8	6.2	1.8	3.8
2	---	---	---	5.0	2.3	3.7	4.7	1.4	3.0	5.8	1.0	3.2
3	---	---	---	5.3	4.3	4.7	4.0	0.7	2.2	6.1	1.0	3.4
4	---	---	---	5.6	4.2	4.8	4.7	0.6	2.3	6.7	1.7	4.1
5	---	---	---	5.6	3.9	4.7	4.5	0.2	1.9	8.2	2.8	5.4
6	---	---	---	6.4	4.8	5.6	4.5	0.2	2.0	9.2	5.9	7.4
7	---	---	---	8.1	5.9	6.9	5.1	0.7	2.7	10.7	6.8	8.4
8	---	---	---	8.1	5.9	7.0	3.9	2.0	2.7	7.2	4.8	5.9
9	---	---	---	8.4	6.7	7.6	5.3	1.7	3.3	8.7	4.0	6.1
10	---	---	---	7.5	5.1	6.3	5.3	1.8	3.5	9.0	5.3	7.1
11	---	---	---	7.2	5.4	6.3	5.9	2.0	3.8	10.1	6.7	8.3
12	---	---	---	6.7	5.1	5.9	5.9	2.5	4.0	9.9	7.8	8.7
13	---	---	---	5.8	4.5	5.2	5.6	2.3	3.9	8.2	6.7	7.7
14	4.0	2.0	3.3	5.4	3.4	4.4	7.2	3.6	5.1	9.6	5.6	7.4
15	3.6	1.7	2.5	5.6	3.3	4.4	5.9	2.1	3.9	10.1	5.4	7.5
16	3.7	1.2	2.4	5.1	3.1	4.1	6.2	1.5	3.7	9.2	4.8	6.8
17	3.6	2.3	2.9	5.4	3.7	4.5	7.2	2.9	4.9	10.2	5.3	7.5
18	4.8	2.8	3.8	5.0	3.7	4.3	7.6	4.0	5.7	10.2	5.4	7.8
19	5.8	3.9	4.9	5.1	3.4	4.2	8.5	5.9	7.0	8.5	6.5	7.5
20	5.6	4.0	4.7	4.0	3.3	3.7	9.0	6.2	7.4	11.6	6.1	8.6
21	5.1	3.7	4.4	5.0	3.1	4.1	8.4	4.8	6.6	12.4	7.0	9.5
22	5.9	4.0	4.8	4.2	2.8	3.6	9.0	5.6	7.1	13.2	8.1	10.5
23	4.0	1.8	2.9	4.3	2.8	3.4	8.7	6.1	7.4	13.6	9.5	11.3
24	3.3	0.6	1.5	4.5	2.3	3.3	8.7	6.2	7.4	10.6	9.9	10.3
25	2.3	0.1	1.1	5.0	2.1	3.5	7.3	4.2	6.0	10.7	9.6	10.0
26	2.5	0.1	1.0	5.3	3.9	4.5	5.0	1.8	3.3	12.7	8.5	10.4
27	3.7	1.7	2.8	6.5	5.0	5.7	6.2	1.8	3.8	12.6	8.8	10.6
28	4.3	2.9	3.7	5.3	3.4	4.5	4.8	3.1	3.9	12.3	8.8	10.5
29	3.7	2.0	3.0	3.4	1.5	2.6	---	---	---	11.2	8.7	9.8
30	3.9	1.2	2.4	3.1	0.1	1.4	---	---	---	13.3	8.5	10.6
31	4.7	3.1	3.8	3.9	1.2	2.5	---	---	---	14.3	9.3	11.6
MONTH	---	---	---	8.4	0.1	4.6	9.0	0.2	4.3	14.3	1.0	8.0

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

WATER TEMPERATURE, DEGREES CELSIUS, DECEMBER 2001 TO NOVEMBER 2002

DAY	APRIL			MAY			JUNE			JULY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.6	9.5	11.4	15.7	11.7	13.0	19.4	17.6	18.3	22.4	20.5	21.2
2	13.6	9.0	11.1	14.2	10.1	12.0	18.3	16.5	17.0	21.7	20.5	21.1
3	14.3	9.0	11.5	14.5	11.7	12.8	16.7	14.9	15.8	21.7	20.5	21.1
4	15.1	9.3	12.1	15.4	11.1	13.1	17.2	14.8	15.8	21.9	20.2	20.9
5	15.4	9.8	12.5	15.3	11.7	13.0	17.8	15.9	16.6	22.0	20.4	21.1
6	14.7	11.3	13.0	14.8	11.8	13.2	18.6	16.5	17.3	22.0	21.0	21.5
7	14.9	10.9	12.8	14.5	12.0	13.1	18.8	17.0	17.8	22.2	21.0	21.5
8	14.4	10.4	12.3	12.3	9.8	10.9	18.6	16.7	17.4	22.2	21.0	21.6
9	13.5	10.4	11.8	12.1	9.3	10.7	17.3	15.1	15.7	22.0	21.0	21.4
10	14.1	10.7	12.4	11.8	10.4	11.0	15.1	13.7	14.1	21.9	20.7	21.3
11	13.2	10.1	11.8	13.2	11.1	11.9	15.4	13.2	14.0	21.9	20.9	21.4
12	14.9	10.4	12.3	16.7	11.4	13.6	16.7	14.5	15.3	22.4	21.2	21.6
13	15.5	10.7	13.1	17.5	13.1	15.0	17.8	15.6	16.4	22.5	21.5	22.0
14	16.2	12.4	14.2	16.7	14.0	15.2	18.6	16.5	17.3	22.7	21.9	22.2
15	14.1	7.5	11.4	16.2	13.5	14.6	19.4	17.6	18.3	22.7	21.9	22.2
16	9.9	5.8	7.5	16.0	12.9	14.3	19.4	18.1	18.8	22.5	21.9	22.1
17	10.7	7.2	8.4	16.5	13.1	14.8	19.4	18.3	18.9	22.5	21.7	22.1
18	11.6	7.8	9.4	17.6	13.8	15.5	19.3	18.3	18.8	22.5	21.9	22.1
19	13.3	7.5	9.9	18.0	14.8	16.3	20.4	16.8	18.4	22.2	21.5	21.8
20	11.3	8.7	9.8	17.5	14.8	16.2	19.7	16.2	17.8	22.0	21.4	21.7
21	12.4	8.5	10.4	16.4	12.1	14.1	20.7	16.8	18.6	21.7	20.9	21.2
22	14.3	9.5	11.7	12.1	10.3	10.9	20.2	18.3	19.2	21.5	20.9	21.1
23	14.6	10.4	12.3	13.5	9.8	11.4	21.4	18.1	19.5	21.2	20.7	20.9
24	15.1	8.8	11.7	14.6	11.4	12.9	21.7	18.8	20.2	21.7	20.4	20.9
25	14.8	9.0	11.8	15.9	12.5	13.9	22.4	19.1	20.7	21.7	21.0	21.2
26	14.0	11.1	12.6	16.8	13.7	15.0	22.5	20.1	21.3	21.0	20.2	20.7
27	13.4	11.5	12.3	17.3	14.3	15.8	22.4	20.2	21.3	21.0	20.2	20.7
28	13.8	10.4	11.9	18.4	15.1	16.5	22.4	20.1	21.1	21.0	19.9	20.4
29	15.4	10.6	12.8	18.9	15.9	17.2	22.2	20.1	21.1	21.4	20.2	20.7
30	15.7	12.6	14.2	19.4	16.5	17.8	22.4	20.2	21.3	21.5	20.5	21.0
31	---	---	---	19.7	17.2	18.3	---	---	---	21.5	20.7	21.1
MONTH	16.2	5.8	11.7	19.7	9.3	14.0	22.5	13.2	18.1	22.7	19.9	21.3
DAY	AUGUST			SEPTEMBER			OCTOBER			NOVEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.0	20.1	20.6	19.6	18.0	18.8	15.6	14.3	14.8	8.0	6.4	7.2
2	21.0	20.4	20.7	20.2	18.0	19.0	14.8	13.8	14.3	7.3	5.6	6.5
3	20.9	20.1	20.4	20.4	18.6	19.5	14.6	13.4	13.8	7.8	5.5	6.6
4	21.2	20.2	20.7	20.5	18.9	19.7	13.8	13.4	13.5	7.8	5.6	6.7
5	21.2	20.1	20.7	20.5	19.1	19.8	14.0	13.4	13.7	8.3	5.9	7.0
6	21.2	20.2	20.6	20.4	19.1	19.4	14.9	13.4	13.9	8.7	6.6	7.6
7	21.2	20.1	20.6	19.1	18.1	18.6	15.3	13.8	14.5	8.4	7.0	7.7
8	20.9	19.7	20.2	19.1	18.0	18.5	15.3	14.0	14.8	8.9	7.8	8.3
9	20.5	19.3	19.9	19.7	18.1	18.9	15.3	13.8	14.6	8.6	7.6	8.1
10	20.5	19.3	19.9	19.7	17.6	18.6	15.1	13.8	14.5	8.0	7.6	7.8
11	20.5	19.6	20.0	19.3	18.0	18.6	14.6	13.7	14.1	8.9	7.8	8.3
12	20.7	19.1	19.8	19.3	18.4	18.9	13.7	12.1	12.9	8.6	7.3	8.0
13	20.7	19.4	20.1	19.3	17.8	18.5	13.5	12.0	12.8	9.3	8.1	8.6
14	20.7	19.6	20.2	19.4	17.8	18.6	13.2	11.8	12.7	9.0	8.3	8.5
15	20.9	19.4	20.1	19.4	18.0	18.8	13.2	11.8	12.6	8.7	7.5	8.2
16	20.9	19.7	20.3	19.4	18.0	18.6	13.1	11.8	12.6	8.7	7.5	8.1
17	20.7	19.3	20.0	18.8	17.5	18.0	13.1	11.8	12.6	8.4	7.3	7.9
18	20.7	19.4	20.1	17.5	16.7	17.1	13.1	11.8	12.6	8.4	7.2	7.8
19	20.7	18.9	19.8	17.6	15.9	16.7	13.1	11.8	12.5	---	---	---
20	20.5	19.4	19.9	17.6	16.0	16.9	12.9	11.7	12.4	---	---	---
21	20.2	19.1	19.7	17.3	15.7	16.5	13.1	10.3	12.2	---	---	---
22	20.2	18.9	19.6	16.8	15.3	16.1	12.8	11.2	12.0	---	---	---
23	20.2	18.9	19.6	17.0	15.3	16.3	12.6	11.2	11.9	---	---	---
24	20.1	18.6	19.3	17.3	15.6	16.5	13.2	10.9	12.1	---	---	---
25	20.2	18.6	19.5	17.3	16.2	16.9	12.1	9.8	11.1	---	---	---
26	20.2	18.9	19.6	17.3	15.7	16.5	12.0	9.5	10.8	---	---	---
27	20.4	18.6	19.4	17.0	15.6	16.1	11.8	10.0	11.0	---	---	---
28	20.4	18.8	19.5	16.4	14.9	15.6	11.1	10.0	10.3	---	---	---
29	19.9	18.6	19.3	16.5	15.4	16.0	10.1	9.2	9.7	---	---	---
30	19.7	18.3	19.0	16.5	15.1	15.6	9.8	8.6	9.1	---	---	---
31	19.7	18.1	18.9	---	---	---	9.0	7.6	8.2	---	---	---
MONTH	21.2	18.1	19.9	20.5	14.9	17.8	15.6	7.6	12.5	---	---	---

## PORTNEUF RIVER BASIN

## 13075000 MARSH CREEK NEAR MCCAMMON, ID

LOCATION.--Lat 42°37'48", long 112°13'33", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.22, T.9 S., R.36 E., Bannock County, Hydrologic Unit 17040208, 70 ft upstream from county road crossing, 2 mi southwest of McCammon, and at mile 11.0.

DRAINAGE AREA.--353 mi<sup>2</sup>. 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.--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 ft<sup>3</sup>/s Feb. 12, 1962, gage height, 13.25 ft; minimum, 8.4 ft<sup>3</sup>/s Jan. 28, 1991, gage height, 1.84 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 114 ft<sup>3</sup>/s Mar. 13; maximum gage height, 4.42 ft, Sept. 7, (backwater due to moss); minimum daily, 20 ft<sup>3</sup>/s June 1, 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	52	46	47	47	55	46	52	20	46	29	30
2	48	50	50	47	45	73	38	58	21	45	31	34
3	47	49	54	47	40	71	40	53	24	45	34	32
4	46	49	54	47	e36	69	40	52	22	45	28	36
5	48	49	52	44	e34	68	36	52	20	47	29	36
6	48	49	55	45	e32	61	35	46	21	53	32	42
7	47	51	58	48	e36	61	37	40	22	51	32	84
8	47	51	52	49	38	75	36	39	24	47	32	60
9	48	50	51	49	36	61	36	37	27	47	32	47
10	46	50	50	49	42	58	36	40	34	45	34	44
11	42	50	50	49	37	61	37	52	33	44	37	40
12	50	49	47	47	39	87	37	50	33	41	36	38
13	53	49	49	47	38	114	36	43	32	42	34	38
14	50	49	47	45	40	84	35	39	31	39	31	39
15	53	49	46	47	38	73	46	36	32	38	28	40
16	50	48	43	46	40	59	67	33	31	38	30	41
17	50	48	45	45	41	66	77	30	30	33	29	43
18	49	47	47	45	40	62	93	29	28	36	33	48
19	48	47	49	43	41	59	91	25	35	36	31	44
20	49	47	48	46	41	61	100	23	34	34	30	43
21	48	48	46	40	42	79	82	26	34	35	29	41
22	49	50	47	46	44	83	75	45	34	34	28	46
23	50	50	43	48	45	79	68	37	33	32	27	48
24	48	49	39	46	48	62	63	32	36	30	25	46
25	47	51	42	43	49	70	58	29	39	31	26	45
26	47	49	43	45	47	67	55	28	40	38	27	43
27	48	49	44	46	48	63	56	27	46	35	26	46
28	47	46	46	39	47	64	59	25	47	33	27	56
29	47	49	46	41	---	60	53	23	51	45	26	50
30	47	50	45	47	---	59	51	22	50	45	26	48
31	55	---	45	48	---	56	---	21	---	38	28	---
TOTAL	1502	1474	1479	1421	1151	2120	1619	1144	964	1248	927	1328
MEAN	48.45	49.13	47.71	45.84	41.11	68.39	53.97	36.90	32.13	40.26	29.90	44.27
MAX	55	52	58	49	49	114	100	58	51	53	37	84
MIN	42	46	39	39	32	55	35	21	20	30	25	30
AC-FT	2980	2920	2930	2820	2280	4210	3210	2270	1910	2480	1840	2630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

MEAN	79.35	81.99	79.65	82.82	106.0	117.7	109.7	104.5	79.19	53.71	56.16	70.55
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	46.7	45.3	45.8	41.1	59.6	45.1	26.6	30.2	23.6	24.5	40.8
(WY)	1993	1993	1993	2002	2002	1992	1992	1992	1961	1994	1992	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1955 - 2002	
ANNUAL TOTAL	17589		16377			
ANNUAL MEAN	48.19		44.87		84.95	
HIGHEST ANNUAL MEAN					166	
LOWEST ANNUAL MEAN					44.9	
HIGHEST DAILY MEAN	100	Mar 11	114	Mar 13	1100	Feb 12 1962
LOWEST DAILY MEAN	21	Aug 29	20	Jun 1	11	Aug 8 1992
ANNUAL SEVEN-DAY MINIMUM	23	Aug 24	21	May 31	16	Aug 4 1992
ANNUAL RUNOFF (AC-FT)	34890		32480		61550	
10 PERCENT EXCEEDS	68		59		138	
50 PERCENT EXCEEDS	47		46		73	
90 PERCENT EXCEEDS	31		29		42	

e Estimated

PORTNEUF RIVER BASIN

13075500 PORTNEUF RIVER AT POCATELLO, ID

LOCATION.--Lat 42°52'18", long 112°28'05", in SE¼NW¼ sec.27, T.6 S., R.34 E., Bannock County, 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 mi<sup>2</sup>, 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 ft<sup>3</sup>/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 ft<sup>3</sup>/s July 19, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 443 ft<sup>3</sup>/s Apr. 16, gage height, 5.23 ft; minimum daily, 18 ft<sup>3</sup>/s July 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	156	193	e190	e180	162	302	318	162	27	38	33
2	44	148	199	e190	e190	191	316	344	154	26	35	34
3	40	134	214	e200	e200	202	303	305	153	26	35	38
4	37	133	215	e200	e180	198	291	271	134	27	36	36
5	38	138	207	e190	e140	203	295	279	122	25	39	35
6	39	144	215	e190	e130	176	301	276	111	26	37	47
7	41	149	213	e200	e170	189	308	259	103	26	35	68
8	41	151	203	e190	e210	204	307	232	101	21	34	80
9	42	148	195	201	e200	199	297	217	99	18	31	80
10	45	147	e190	197	e180	193	292	193	111	26	32	64
11	82	151	e180	195	e190	193	292	175	121	27	31	57
12	83	152	e180	194	e190	206	290	176	121	27	31	56
13	93	152	e190	192	e180	263	284	168	115	26	29	61
14	97	151	e200	187	e190	263	292	163	104	25	29	63
15	87	151	e190	191	e180	228	356	164	95	25	27	64
16	86	151	e190	192	e190	216	435	143	82	25	25	63
17	88	152	e200	192	e190	209	419	142	78	24	22	65
18	87	152	e200	192	e190	212	405	141	76	25	22	72
19	90	157	e200	194	e190	203	399	150	77	28	23	82
20	77	155	e200	194	e200	202	405	154	88	28	22	71
21	73	155	e200	197	e190	221	388	192	97	28	29	83
22	76	172	e200	192	187	251	360	260	92	26	40	88
23	81	184	e190	194	188	269	352	249	90	26	33	91
24	84	178	e170	200	195	283	352	218	89	26	26	98
25	94	182	e140	191	196	263	346	192	81	42	25	97
26	93	184	e130	198	180	255	341	180	71	37	27	88
27	126	187	e160	196	178	250	337	179	64	35	27	57
28	132	183	e190	198	187	259	333	175	62	35	29	58
29	138	185	e180	e150	---	264	323	171	46	35	30	70
30	146	201	e180	e130	---	276	325	165	37	33	34	69
31	152	---	e190	e180	---	287	---	162	---	42	33	---
TOTAL	2476	4783	5904	5897	5171	6990	10046	6413	2936	873	946	1968
MEAN	79.87	159.4	190.5	190.2	184.7	225.5	334.9	206.9	97.87	28.16	30.52	65.60
MAX	152	201	215	201	210	287	435	344	162	42	40	98
MIN	37	133	130	130	130	162	284	141	37	18	22	33
AC-FT	4910	9490	11710	11700	10260	13860	19930	12720	5820	1730	1880	3900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 2002, BY WATER YEAR (WY)

	1897	1984	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	197.6	257.2	267.1	273.3	317.6	405.9	521.0	519.5	273.9	100.7	93.75	129.2						
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	14.7	11.2	25.8						
(WY)	1993	1935	1993	1993	1993	1934	1934	1992	1992	1994	1992	1992						

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1897 - 2002

ANNUAL TOTAL	49190	54403																
ANNUAL MEAN	134.8	149.0								278.1								
HIGHEST ANNUAL MEAN										705								1984
LOWEST ANNUAL MEAN										118								1934
HIGHEST DAILY MEAN			375		Mar 25		435		Apr 16	2850			May 17	1984				
LOWEST DAILY MEAN			20		Aug 3		18		Jul 9	0.23			Jul 19	1979				
ANNUAL SEVEN-DAY MINIMUM			23		Jul 29		24		Jul 3	2.4			Jun 29	1961				
ANNUAL RUNOFF (AC-FT)	97570	107900								201500								
10 PERCENT EXCEEDS	276	277								523								
50 PERCENT EXCEEDS	134	156								240								
90 PERCENT EXCEEDS	28	29								63								

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 (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.

EXTREMES FOR CURRENT YEAR.--

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

WATER-QUALITY DATA, APRIL TO JUNE 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
APR 24...	1420	352	643	8.6	11.6	11.1	33	10.6	112	S64
MAY 15...	1010	164	485	8.7	12.8	12.3	12	10.3	113	220
JUN 24...	1443	90	550	8.6	31.8	23.3	11	11.3	156	447

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, DIS-SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-SUS-PENDED (T/DAY) (80155)
APR 24...	.015	.68	.581	.023	.119	79	75.1
MAY 15...	<.015	.44	.024	<.007	.053	15	6.6
JUN 24...	<.015	.54	.034	E.004	.062	24	5.8

< Less than  
E Estimated value  
S Most probable value

WATER TEMPERATURE, DEGREES CELSIUS, DECEMBER 2001 TO NOVEMBER 2002

DAY	DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	0.1	0.0	0.1	0.1	0.0	0.0	0.6	0.0	0.2
2	---	---	---	0.1	0.0	0.1	0.3	0.0	0.1	0.3	0.0	0.1
3	---	---	---	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.0	0.0
4	---	---	---	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.0	0.0
5	---	---	---	0.1	0.0	0.1	0.1	0.0	0.0	1.5	0.0	0.2
6	---	---	---	0.1	0.0	0.1	0.1	0.0	0.0	4.5	1.5	3.2
7	2.0	0.9	1.3	0.1	0.1	0.1	0.3	0.0	0.0	5.6	3.9	4.7
8	1.1	0.3	0.6	3.6	0.1	2.0	0.1	0.0	0.0	4.7	3.4	4.0
9	0.3	0.0	0.1	4.2	3.6	3.9	0.3	0.0	0.1	3.4	2.0	2.9
10	0.1	0.1	0.1	4.1	3.1	3.6	0.3	0.0	0.1	4.5	2.2	3.4
11	0.1	0.1	0.1	3.4	2.6	2.9	0.3	0.0	0.1	6.1	4.1	5.0
12	0.1	0.1	0.1	3.0	2.0	2.5	0.3	0.0	0.0	6.5	5.3	5.8
13	0.1	0.0	0.1	2.5	1.5	2.0	0.3	0.0	0.0	5.9	4.4	5.3
14	0.3	0.1	0.1	2.0	1.1	1.5	0.3	0.0	0.1	5.5	3.3	4.3
15	0.1	0.1	0.1	1.1	0.3	0.7	0.3	0.0	0.0	5.0	3.1	4.0
16	0.1	0.1	0.1	0.9	0.3	0.5	0.3	0.0	0.0	5.0	3.3	4.1
17	0.1	0.0	0.1	0.9	0.0	0.4	0.4	0.0	0.1	5.9	3.4	4.7
18	0.1	0.1	0.1	0.7	0.0	0.4	0.3	0.0	0.1	5.3	4.1	4.7
19	0.1	0.0	0.1	0.6	0.0	0.2	0.3	0.0	0.1	5.6	4.1	4.7
20	0.1	0.0	0.0	0.6	0.0	0.2	0.4	0.0	0.1	7.2	3.4	5.2
21	0.1	0.0	0.1	0.9	0.3	0.6	2.3	0.0	0.7	8.7	5.5	7.0
22	0.1	0.0	0.1	0.6	0.0	0.3	4.2	1.8	3.0	9.6	7.0	8.3
23	0.1	0.0	0.1	0.6	0.0	0.2	4.5	3.1	3.8	10.3	8.2	9.1
24	0.1	0.0	0.1	1.1	0.1	0.5	5.8	4.2	4.8	9.3	7.6	8.9
25	0.1	0.0	0.1	0.4	0.0	0.1	4.4	2.2	3.4	7.6	6.7	7.3
26	0.1	0.0	0.0	1.5	0.0	0.6	2.2	0.0	1.0	8.7	6.2	7.5
27	0.1	0.0	0.1	2.2	1.2	1.6	0.9	0.0	0.3	10.1	7.9	8.9
28	0.1	0.0	0.1	1.7	0.3	1.3	1.2	0.1	0.5	9.8	7.9	8.7
29	0.1	0.0	0.1	0.3	0.0	0.1	---	---	---	10.4	7.5	8.8
30	0.1	0.0	0.1	0.1	0.0	0.1	---	---	---	11.0	8.4	9.6
31	0.1	0.0	0.1	0.1	0.0	0.1	---	---	---	11.5	9.2	10.2
MONTH	---	---	---	4.2	0.0	0.9	5.8	0.0	0.7	11.5	0.0	5.2

PORTNEUF RIVER BASIN  
13075500 PORTNEUF RIVER AT POCATELLO, ID--Continued

WATER TEMPERATURE, DEGREES CELSIUS, DECEMBER 2001 TO NOVEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.8	9.6	10.5	13.1	11.0	11.8	21.5	18.5	19.9	25.5	20.6	23.4
2	11.2	9.3	10.2	12.2	9.4	10.8	19.7	16.4	17.6	25.2	20.0	23.0
3	11.2	8.9	9.9	13.5	11.1	12.0	18.0	14.1	16.0	24.2	21.5	22.6
4	12.0	9.5	10.5	13.5	10.2	11.8	19.2	14.1	16.6	24.8	19.3	22.2
5	12.6	9.9	11.1	13.3	11.3	12.2	20.1	15.3	17.8	25.2	20.0	22.8
6	12.7	10.9	11.7	13.5	10.8	11.8	20.8	16.4	18.8	26.4	22.0	23.9
7	12.3	10.4	11.2	12.7	9.3	11.7	20.1	16.6	18.6	26.6	21.5	24.1
8	12.4	10.1	11.1	9.6	6.8	8.3	19.3	15.5	17.4	26.1	21.6	24.0
9	11.8	10.4	10.9	9.7	7.0	8.4	16.4	13.6	14.5	26.1	20.0	23.3
10	12.0	9.9	10.7	10.2	7.9	9.0	13.6	11.3	12.3	26.4	20.5	23.6
11	11.2	9.9	10.5	13.0	8.3	10.4	14.9	10.0	12.3	26.8	21.3	24.1
12	12.0	9.8	10.7	14.7	9.9	12.3	17.5	12.2	14.8	27.3	21.8	24.7
13	12.6	10.1	11.3	16.6	11.4	13.9	19.7	13.9	16.7	27.3	22.6	25.1
14	13.7	11.6	12.5	16.4	13.0	14.5	21.0	15.6	18.4	27.8	23.3	25.5
15	12.3	7.8	10.4	14.9	11.7	13.6	22.5	17.9	20.3	26.8	23.3	25.2
16	7.8	5.6	6.8	15.6	10.7	13.1	23.0	19.2	21.1	25.4	23.1	24.1
17	7.9	7.0	7.5	16.4	11.4	13.9	22.0	19.2	20.9	26.6	22.1	24.4
18	8.2	7.2	7.7	18.0	12.8	15.4	21.0	18.7	19.6	25.5	23.0	24.2
19	8.6	7.3	7.9	19.0	14.4	16.7	21.0	16.4	18.8	24.7	21.8	23.1
20	9.2	7.3	8.2	18.8	14.7	16.9	19.8	16.4	17.9	24.8	21.1	22.8
21	9.9	8.1	8.9	17.2	10.7	14.0	21.6	16.6	19.1	24.8	20.5	22.7
22	12.1	9.0	10.4	10.8	9.3	10.1	21.1	18.7	20.0	24.3	20.6	22.4
23	12.4	10.3	11.3	12.1	7.9	9.8	22.6	18.2	20.5	24.2	20.1	22.1
24	11.3	9.2	10.0	13.9	10.0	11.8	24.2	19.5	21.8	25.0	20.3	22.6
25	12.2	9.4	10.6	14.9	10.8	12.8	24.8	20.3	22.7	23.3	19.7	21.6
26	12.8	10.7	11.3	16.1	12.2	13.9	25.0	20.5	22.9	22.6	19.0	20.7
27	12.1	10.5	11.2	18.0	13.5	15.7	25.0	21.1	23.2	23.3	19.5	21.4
28	12.4	10.2	11.0	18.5	14.4	16.3	24.3	20.6	22.7	22.8	19.0	21.0
29	13.0	10.2	11.5	20.0	15.5	17.7	25.4	21.0	23.2	23.6	19.8	21.7
30	14.5	11.9	13.1	21.5	16.4	18.9	25.5	20.6	23.3	23.6	20.0	22.0
31	---	---	---	22.5	17.4	19.9	---	---	---	22.8	20.5	21.7
MONTH	14.5	5.6	10.4	22.5	6.8	13.2	25.5	10.0	19.0	27.8	19.0	23.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	19.2	21.3	20.6	16.4	18.4	12.4	9.9	11.0	2.9	1.6	2.4
2	22.1	20.1	21.0	21.0	16.6	18.6	10.5	8.7	9.7	1.6	0.7	1.1
3	22.1	18.8	20.4	21.5	17.5	19.4	10.0	8.2	9.2	1.9	0.2	1.0
4	22.8	19.3	21.2	21.1	18.0	19.5	9.9	9.0	9.4	2.4	1.0	1.6
5	22.3	18.7	20.8	20.6	18.2	19.4	11.0	9.1	9.9	2.9	1.3	2.1
6	22.6	19.0	21.1	19.0	17.5	18.4	11.4	9.1	10.4	3.7	1.9	2.8
7	22.0	18.5	20.5	17.9	16.3	17.2	12.4	9.7	11.0	4.1	2.9	3.5
8	21.3	17.4	19.6	18.0	15.6	17.0	12.7	10.4	11.7	5.4	3.7	4.3
9	21.0	16.9	19.2	18.5	16.1	17.4	12.2	10.0	11.3	5.5	4.3	5.0
10	21.5	17.1	19.4	18.0	14.9	16.8	11.7	10.0	11.1	6.2	4.9	5.4
11	21.8	17.7	19.7	18.8	15.8	17.5	11.6	9.6	10.6	5.7	4.9	5.3
12	21.6	17.4	19.6	19.7	16.8	18.3	9.9	8.2	9.1	5.4	4.5	5.0
13	21.8	18.2	20.0	19.2	16.1	18.0	9.0	7.0	8.2	5.7	4.6	5.1
14	22.1	18.0	20.0	19.0	16.0	17.8	8.8	7.0	8.0	5.9	4.9	5.3
15	22.5	18.2	20.2	18.5	15.8	17.4	8.8	6.8	7.9	4.9	3.8	4.5
16	22.5	18.7	20.3	18.5	16.0	17.4	9.1	7.0	8.1	4.9	3.8	4.4
17	22.1	17.4	19.7	17.2	14.9	15.9	9.3	7.3	8.3	4.9	4.0	4.4
18	22.3	17.7	19.9	16.1	13.9	14.9	9.1	7.4	8.4	4.6	3.5	4.1
19	21.8	16.8	19.2	15.6	13.3	14.8	9.1	7.4	8.3	4.8	3.5	4.1
20	21.6	17.5	19.4	15.8	13.5	14.7	9.0	7.4	8.3	---	---	---
21	21.3	17.2	19.2	15.0	13.0	14.1	9.0	7.3	8.2	---	---	---
22	20.8	16.9	18.9	14.2	12.1	13.4	9.0	8.0	8.4	---	---	---
23	21.0	17.2	18.8	14.2	12.2	13.4	8.3	7.3	7.9	---	---	---
24	21.5	16.6	18.9	15.0	12.8	14.0	9.0	7.9	8.3	---	---	---
25	21.6	16.6	19.1	15.3	13.6	14.6	8.2	6.6	7.5	---	---	---
26	20.6	16.8	18.6	15.0	13.0	14.1	7.9	6.5	7.3	---	---	---
27	21.3	16.6	18.8	14.5	12.8	13.6	7.7	6.2	7.0	---	---	---
28	21.6	16.8	18.8	13.8	11.3	12.6	7.3	6.6	6.8	---	---	---
29	21.1	16.8	18.6	13.8	11.4	12.5	6.6	5.5	6.2	---	---	---
30	20.6	16.3	18.5	12.8	11.1	12.1	5.7	4.8	5.4	---	---	---
31	20.3	16.0	18.0	---	---	---	4.8	2.9	3.9	---	---	---
MONTH	23.0	16.0	19.6	21.5	11.1	16.1	12.7	2.9	8.6	---	---	---



## 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, 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 ft<sup>3</sup>/s May 6, 1986, gage height, 6.76 ft; minimum daily, 47 ft<sup>3</sup>/s July 3, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 666 ft<sup>3</sup>/s Apr. 16; minimum daily, 47 ft<sup>3</sup>/s July 3.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	448	416	409	429	402	519	541	253	79	226	206
2	299	437	423	407	438	403	536	569	262	63	212	211
3	292	419	442	406	418	415	525	510	257	47	207	217
4	281	405	437	411	408	413	513	449	234	48	216	190
5	284	409	431	412	407	416	518	409	190	56	207	202
6	287	418	446	408	408	419	525	418	137	54	224	207
7	307	417	439	422	412	434	531	413	106	101	191	281
8	285	421	429	429	435	445	535	423	98	108	224	269
9	350	414	404	429	402	445	524	392	165	76	203	275
10	384	406	411	422	402	435	518	331	162	58	210	271
11	429	403	414	420	421	435	520	304	135	60	260	245
12	437	404	405	420	422	450	519	314	130	66	208	234
13	435	400	399	417	418	506	515	289	124	68	179	235
14	438	397	394	413	425	518	521	267	119	136	203	233
15	452	393	395	414	418	478	579	249	114	176	210	232
16	411	390	363	420	413	461	666	241	107	171	205	225
17	412	387	379	420	417	448	653	222	112	173	210	239
18	404	386	407	420	425	449	631	218	94	171	218	260
19	405	387	426	419	428	440	627	228	94	176	227	273
20	383	384	423	418	438	436	627	248	99	175	225	262
21	377	387	415	431	436	449	616	282	129	173	201	265
22	374	402	410	426	431	479	590	415	123	178	206	281
23	376	415	400	422	431	498	576	418	168	185	227	299
24	375	412	339	437	436	513	576	377	156	166	221	313
25	388	413	344	424	435	494	568	350	126	252	220	312
26	385	410	346	430	425	482	558	372	92	293	222	297
27	420	418	366	437	415	472	559	297	87	255	220	246
28	431	410	402	442	436	480	555	271	87	250	208	230
29	424	410	402	390	---	485	548	271	74	237	146	255
30	425	423	389	371	---	494	549	287	78	207	210	278
31	447	---	397	418	---	506	---	252	---	224	204	---
TOTAL	11696	12225	12493	12964	11829	14200	16797	10627	4112	4482	6550	7543
MEAN	377.3	407.5	403.0	418.2	422.5	458.1	559.9	342.8	137.1	144.6	211.3	251.4
MAX	452	448	446	442	438	518	666	569	262	293	260	313
MIN	281	384	339	371	402	402	513	218	74	47	146	190
AC-FT	23200	24250	24780	25710	23460	28170	33320	21080	8160	8890	12990	14960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2002, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	440.8	496.7	495.4	492.8	547.1	648.4	634.9	502.3	258.8	188.2	274.1	325.6						
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	458	322	92.8	103	136	198	213						
(WY)	1993	1993	1993	1993	1993	2002	1992	1992	2001	1990	1992	1992						

SUMMARY STATISTICS	FOR 2002 WATER YEAR	WATER YEARS 1985 - 2002
ANNUAL TOTAL	125518	
ANNUAL MEAN	343.9	443.4
HIGHEST ANNUAL MEAN		833 1986
LOWEST ANNUAL MEAN		319 1992
HIGHEST DAILY MEAN	666	Apr 16 1730
LOWEST DAILY MEAN	47	Jul 3 43
ANNUAL SEVEN-DAY MINIMUM	61	Jun 30 61
ANNUAL RUNOFF (AC-FT)	249000	321200
10 PERCENT EXCEEDS	506	687
50 PERCENT EXCEEDS	400	429
90 PERCENT EXCEEDS	152	179

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, 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 good. Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 605 ft<sup>3</sup>/s June 8, 1998; maximum gage height, 6.09 ft, June 18, 1997 (backwater from Snake River); minimum daily, 261 ft<sup>3</sup>/s July 11, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 358 ft<sup>3</sup>/s Oct. 8; minimum daily, 261 ft<sup>3</sup>/s July 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	336	343	324	329	298	320	305	296	278	278	301
2	353	337	348	324	330	295	321	301	299	268	279	306
3	349	335	352	323	327	298	317	298	306	269	281	302
4	350	335	347	321	326	295	316	300	301	267	283	299
5	352	337	346	320	327	296	317	297	298	267	284	299
6	354	343	349	320	327	305	316	299	299	268	285	303
7	353	339	347	323	328	321	314	300	299	270	283	319
8	358	336	344	322	326	305	313	297	290	274	282	327
9	353	336	344	322	322	302	312	303	299	264	282	319
10	354	336	345	321	323	302	311	301	312	264	285	310
11	354	335	344	323	321	304	312	304	299	261	291	308
12	349	337	340	326	322	312	311	304	299	262	294	311
13	349	340	341	326	322	313	310	306	297	266	287	306
14	349	339	349	328	316	307	313	296	293	265	286	302
15	347	338	346	326	304	309	318	295	293	268	284	302
16	352	338	341	327	304	307	322	298	294	271	282	302
17	344	338	343	328	305	309	330	294	298	275	283	305
18	342	339	342	327	303	307	327	293	294	271	286	306
19	342	337	344	328	302	306	327	292	299	274	291	303
20	343	340	343	329	301	309	323	295	295	278	288	299
21	344	346	341	334	300	314	318	302	293	280	287	297
22	342	357	342	332	302	316	314	314	285	285	289	298
23	339	350	338	328	306	318	312	321	293	276	290	301
24	335	350	336	327	310	326	310	319	303	272	291	301
25	336	351	334	332	306	326	310	318	284	277	308	303
26	334	347	333	335	302	325	310	316	283	280	303	302
27	335	343	332	336	301	319	307	319	280	276	296	308
28	335	346	328	337	302	316	306	304	273	278	298	311
29	336	354	327	336	---	316	307	305	272	280	296	315
30	337	346	326	333	---	317	305	299	273	278	295	315
31	341	---	326	330	---	318	---	300	---	277	297	---
TOTAL	10718	10241	10561	10148	8794	9611	9449	9395	8798	8439	8944	9180
MEAN	345.7	341.4	340.7	327.4	314.1	310.0	315.0	303.1	293.3	272.2	288.5	306.0
MAX	358	357	352	337	330	326	330	321	312	285	308	327
MIN	334	335	326	320	300	295	305	292	272	261	278	297
AC-FT	21260	20310	20950	20130	17440	19060	18740	18630	17450	16740	17740	18210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, 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	
MEAN	375.8	367.0	360.4	353.3	348.0	347.9	345.4	364.3	362.2	339.4	347.7	367.2												
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	321	321	319	314	302	310	290	303	293	272	289	306												
(WY)	1993	1993	1995	1992	1993	2002	1994	2002	2002	2002	2002	2002												

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR				FOR 2002 WATER YEAR				WATER YEARS 1980 - 2002			
ANNUAL TOTAL	124284				114278							
ANNUAL MEAN	340.5				313.1				356.6			
HIGHEST ANNUAL MEAN									410			
LOWEST ANNUAL MEAN									313			
HIGHEST DAILY MEAN	389				Jul 19				358			
LOWEST DAILY MEAN	295				Jun 30				261			
ANNUAL SEVEN-DAY MINIMUM	301				Jun 24				264			
ANNUAL RUNOFF (AC-FT)	246500				226700				258400			
10 PERCENT EXCEEDS	360				344				402			
50 PERCENT EXCEEDS	341				312				354			
90 PERCENT EXCEEDS	315				281				312			

## 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, 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 mi<sup>2</sup>, 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 ft<sup>3</sup>/s June 20, 1918, gage height, 13.5 ft, site and datum then in use; minimum daily, 2,180 ft<sup>3</sup>/s Oct. 7, 1924.

Maximum discharge since regulation began in 1927, 46,100 ft<sup>3</sup>/s June 19, 20, 24, 25, 1997, gage height, 11.46 ft, present site and datum; minimum, 50 ft<sup>3</sup>/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 discharge, 12,000 ft<sup>3</sup>/s June 25, gage height, 6.54 ft; minimum daily, 326 ft<sup>3</sup>/s Nov. 22-24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4910	351	335	363	362	408	2100	6440	9800	11700	10400	9030
2	4460	353	335	362	363	410	2100	6830	9650	11500	10500	8870
3	4480	355	336	366	364	410	2130	7330	9580	11300	10600	8740
4	4620	355	335	367	363	410	2110	7870	9490	11000	10500	8270
5	4670	358	340	364	363	412	2060	8070	9470	11100	10500	7980
6	4660	361	350	366	364	416	2070	8280	9380	11100	10500	7990
7	4490	363	347	367	365	417	2080	8460	9440	11200	10600	8010
8	4160	363	346	367	372	417	2080	8330	9470	11200	10600	7970
9	4060	365	347	369	368	416	2130	8110	9430	11200	10400	7700
10	3930	368	349	372	366	415	1990	8040	9400	11000	10100	7220
11	3280	359	349	356	369	418	1620	8030	9340	10900	9830	7260
12	2550	360	350	349	369	421	1580	7970	9320	11000	9830	7230
13	1880	363	356	349	369	420	1900	8230	9480	11200	9800	7260
14	911	366	362	348	373	420	2130	8570	10000	11300	9650	7270
15	378	371	354	350	372	420	2220	8780	10200	11400	9730	7280
16	362	372	356	351	372	421	2470	8770	10400	11400	9810	7230
17	363	374	358	350	372	423	2470	8960	10700	11100	9770	7080
18	367	377	354	354	375	423	2250	9260	10800	10800	9690	7010
19	370	378	355	356	374	424	2440	9230	10900	10600	9420	6660
20	370	379	354	356	373	426	3020	9190	11100	10500	9420	5860
21	366	348	354	361	372	425	2840	9120	11100	10600	9410	5280
22	371	326	354	358	372	425	2760	9030	11000	10500	9390	5080
23	374	326	354	360	374	427	2930	8620	11000	10400	9360	4990
24	378	326	354	361	377	428	3220	8130	11000	10400	9370	5090
25	368	328	355	364	372	427	3430	7750	11400	10300	9350	5250
26	367	328	356	361	372	427	3470	7930	11700	10300	9310	5280
27	374	330	358	361	378	765	3840	8090	11700	10300	9170	5190
28	386	332	359	360	398	1370	4440	8310	11700	10300	8470	5090
29	386	338	360	359	---	1920	5060	8850	11700	10200	9150	5080
30	363	329	361	360	---	2150	5860	9660	11700	10200	9310	5070
31	350	---	362	361	---	2100	---	9990	---	10200	9350	---
TOTAL	59354	10602	10895	11148	10383	19211	80800	260230	311350	336200	303290	203320
MEAN	1915	353.4	351.5	359.6	370.8	619.7	2693	8395	10380	10850	9784	6777
MAX	4910	379	362	372	398	2150	5860	9990	11700	11700	10600	9030
MIN	350	326	335	348	362	408	1580	6440	9320	10200	8470	4990
AC-FT	117700	21030	21610	22110	20590	38110	160300	516200	617600	666900	601600	403300

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 <sup>a</sup> 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 - 2002, BY WATER YEAR (WY) (REGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3727	2858	3204	3730	3788	4618	8454	13200	14090	12380	10900	7406
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 2001 CALENDAR YEAR FOR 2002 WATER YEAR <sup>b</sup> WATER YEARS 1927 - 2002

ANNUAL TOTAL	1703609	1616783
ANNUAL MEAN	4667	4430
HIGHEST ANNUAL MEAN		7380
LOWEST ANNUAL MEAN		13800
HIGHEST DAILY MEAN	12200	Jun 28
LOWEST DAILY MEAN	326	Nov 22
ANNUAL SEVEN-DAY MINIMUM	328	Nov 22
ANNUAL RUNOFF (AC-FT)	3379000	3207000
10 PERCENT EXCEEDS	10600	10600
50 PERCENT EXCEEDS	3880	2130
90 PERCENT EXCEEDS	356	354

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