

**Figure 12.** Schematic diagram showing gaging stations in the Snake River basin between King Hill and Murphy and in the Bruneau River basin.

DIVERSIONS FROM SNAKE RIVER  
BETWEEN SNAKE RIVER AT KING HILL AND SNAKE RIVER BELOW C.J. STRIKE DAM

13154510 KING HILL IRRIGATION DISTRICT PUMPING PLANT AT KING HILL, ID

LOCATION.--Lat 43°00'04", long 115°12'30", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.12, T.5 S., R.10 E., Elmore County, King Hill quad., Hydrologic Unit 17050101, on left bank of Snake River, 0.25 mi southwest of King Hill.

PERIOD OF RECORD.--April 1988 to September 2003 (discontinued) (irrigation seasons only).

GAGE.--In-line flow sensor with datalogger.

REMARKS.--Records fair. In-line flow sensor rated by ultrasonic flowmeter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 27 ft<sup>3</sup>/s July 9, 12, 13, 2003; no flow for long periods each year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	0.00	---	---	---	---	0.00	11	13	18	15	18
2	14	0.00	---	---	---	---	0.00	11	11	23	18	19
3	13	0.00	---	---	---	---	0.00	10	14	25	18	15
4	13	0.00	---	---	---	---	0.00	8.4	16	23	18	14
5	3.9	0.00	---	---	---	---	0.00	7.7	18	23	18	15
6	0.00	0.00	---	---	---	---	0.00	6.7	20	23	18	e18
7	0.00	0.00	---	---	---	---	0.00	5.4	21	26	19	18
8	0.00	---	---	---	---	---	0.00	6.0	22	24	20	18
9	0.00	---	---	---	---	---	0.00	10	22	27	20	19
10	0.00	---	---	---	---	---	0.00	12	23	24	20	e21
11	0.00	---	---	---	---	---	0.00	11	24	24	20	22
12	0.00	---	---	---	---	---	0.00	11	25	27	19	23
13	0.00	---	---	---	---	---	0.00	14	25	27	20	23
14	0.00	---	---	---	---	---	5.7	17	24	26	20	23
15	0.00	---	---	---	---	---	9.8	15	24	22	19	23
16	0.00	---	---	---	---	---	14	12	23	22	19	24
17	0.00	---	---	---	---	---	14	12	22	21	17	e24
18	0.00	---	---	---	---	---	14	13	19	18	17	24
19	0.00	---	---	---	---	---	14	14	17	18	19	24
20	0.00	---	---	---	---	---	14	15	18	16	19	24
21	0.00	---	---	---	---	---	14	16	18	14	19	24
22	0.00	---	---	---	---	---	16	17	18	13	17	24
23	0.00	---	---	---	---	---	18	19	19	14	17	21
24	0.00	---	---	---	---	---	17	19	19	12	15	24
25	0.00	---	---	---	---	0.00	14	14	19	13	14	19
26	0.00	---	---	---	---	0.00	12	11	19	13	14	20
27	0.00	---	---	---	---	0.00	12	8.8	18	13	15	18
28	0.00	---	---	---	---	0.00	11	16	18	13	15	20
29	0.00	---	---	---	---	0.00	8.5	19	15	13	17	20
30	0.00	---	---	---	---	0.00	9.6	17	16	13	16	20
31	0.00	---	---	---	---	0.00	---	15	---	13	17	---
TOTAL	56.90	---	---	---	---	---	217.60	394.0	580	601	549	619
MEAN	1.84	---	---	---	---	---	7.25	12.7	19.3	19.4	17.7	20.6
MAX	14	---	---	---	---	---	18	19	25	27	20	24
MIN	0.00	---	---	---	---	---	0.00	5.4	11	12	14	14
AC-FT	113	---	---	---	---	---	432	781	1150	1190	1090	1230

e Estimated

CANYON CREEK BASIN

13159800 CANYON CREEK AT OREGON TRAIL CROSSING NEAR MOUNTAIN HOME, ID

LOCATION.--Lat 43°15'39", long 115°42'06", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.11, T.2 S., R.6 E., Elmore County, Syrup Creek quad., Hydrologic Unit 17050101, on right bank, 31 mi upstream from mouth, 3 mi downstream from confluence of Syrup Creek and Long Tom Creek, and 8.5 mi north of Mountain Home.

DRAINAGE AREA.--70.5 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,540 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Flow partly regulated by Long Tom Reservoir which receives water by inter-basin transfer from South Fork Boise River drainage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,420 ft<sup>3</sup>/s Feb. 23, 1986, gage height, 5.09 ft; no flow Sept. 29 to Oct. 28, 1991, July 21 to Nov. 9, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 69 ft<sup>3</sup>/s Jan. 31; minimum daily, 0.88 ft<sup>3</sup>/s Sept. 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.7	1.4	3.7	68	17	43	38	40	37	25	5.8
2	2.7	1.8	1.4	3.8	60	16	43	45	50	38	26	4.3
3	2.7	2.0	1.4	4.1	51	16	42	48	50	40	26	5.4
4	2.5	2.0	1.4	4.4	44	15	41	53	50	40	25	5.7
5	2.3	2.0	1.3	5.0	38	15	40	56	50	38	25	5.6
6	2.2	2.0	1.3	6.9	33	14	40	48	52	40	26	5.5
7	2.2	2.1	1.3	8.5	29	14	39	47	55	42	29	5.2
8	2.1	2.5	1.2	8.3	26	13	38	46	56	42	33	5.2
9	2.0	2.9	1.4	7.7	23	13	36	38	54	42	36	3.2
10	2.0	3.0	1.4	7.2	20	13	35	37	54	42	36	1.9
11	2.0	2.8	1.4	6.7	18	13	34	32	54	42	44	1.8
12	2.0	2.5	1.4	6.4	17	13	34	31	54	50	41	1.5
13	2.0	2.5	1.3	6.5	17	13	33	30	54	50	40	1.4
14	2.0	2.4	1.6	9.0	18	13	34	30	52	59	51	1.3
15	2.0	2.3	1.4	12	16	13	31	29	46	51	48	1.3
16	1.9	2.3	1.4	13	20	15	30	28	44	60	49	1.3
17	1.9	2.4	1.6	13	24	15	29	28	44	61	51	1.3
18	1.9	2.2	1.5	12	25	15	28	27	44	60	46	1.3
19	1.9	2.3	1.4	11	25	15	e28	26	45	55	45	1.3
20	1.9	2.3	1.5	10	24	15	e26	25	54	42	45	1.2
21	1.9	1.9	1.6	9.7	23	15	e26	24	44	42	44	1.3
22	2.0	1.6	1.6	9.2	23	15	e26	23	42	42	44	1.2
23	2.2	1.6	1.5	9.8	22	16	25	31	41	42	38	1.1
24	2.3	1.5	1.4	9.7	20	15	23	31	41	41	34	1.1
25	2.1	1.5	1.5	10	19	15	24	30	41	43	28	0.97
26	2.1	1.4	1.4	11	18	33	22	30	42	44	28	0.92
27	2.0	1.4	1.7	20	18	58	22	27	38	42	30	0.90
28	2.0	1.4	1.9	40	17	58	26	26	29	45	37	0.89
29	2.1	1.4	2.1	35	---	54	26	31	29	39	41	0.88
30	2.2	1.4	2.1	42	---	49	38	32	28	30	40	0.92
31	1.9	---	3.3	69	---	46	---	33	---	27	11	---
TOTAL	65.8	61.1	48.1	424.6	756	660	962	1060	1377	1368	1122	71.68
MEAN	2.12	2.04	1.55	13.7	27.0	21.3	32.1	34.2	45.9	44.1	36.2	2.39
MAX	2.8	3.0	3.3	69	68	58	43	56	56	61	51	5.8
MIN	1.9	1.4	1.2	3.7	16	13	22	23	28	27	11	0.88
AC-FT	131	121	95	842	1500	1310	1910	2100	2730	2710	2230	142

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
MEAN	3.47	2.74	5.70	15.2	36.2	64.1	60.9	55.2	56.3	50.0	37.5	22.5									
MAX	9.21	8.06	32.3	114	261	196	170	105	79.4	88.9	70.5	52.8									
(WY)	1996	1986	1997	1997	1986	1989	1984	1984	1989	1999	1999	1999									
MIN	0.000	0.59	1.08	1.69	3.03	5.12	3.38	7.17	5.73	2.16	0.000	0.000									
(WY)	1993	1995	1991	1992	2001	1992	1992	1992	1992	1992	1992	1992									

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1984 - 2003

ANNUAL TOTAL	11783.5	7976.28	
ANNUAL MEAN	32.3	21.9	32.8
HIGHEST ANNUAL MEAN			69.6
LOWEST ANNUAL MEAN			2.63
HIGHEST DAILY MEAN	120	Apr 2	69
LOWEST DAILY MEAN	1.2	Dec 8	0.88
ANNUAL SEVEN-DAY MINIMUM	1.3	Dec 2	0.94
ANNUAL RUNOFF (AC-FT)	23370	15820	23740
10 PERCENT EXCEEDS	73	48	74
50 PERCENT EXCEEDS	34	19	19
90 PERCENT EXCEEDS	1.7	1.4	1.2

e Estimated

## CANYON CREEK BASIN

## 131610556 MCCALLEY DAM OUTFLOW AT MOUNTAIN HOME AIR FORCE BASE, ID

LOCATION.--Lat 43°03'00", long 115°53'07", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.29, T.4 S., R.5 E., Elmore County, Crater Rings SW Quad., Hydrologic Unit 17050101, on right bank at McCalley Dam, 125 ft upstream from Liberator Street, on Mountain Home Air Force Base.

PERIOD OF RECORD.--December 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,980 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAL YR 2002	TOTAL 0.00	MEAN 0.000	MAX 0.00	MIN 0.00	AC-FT 0.00							
WTR YR 2003	TOTAL 0.00	MEAN 0.000	MAX 0.00	MIN 0.00	AC-FT 0.00							



## BRUNEAU RIVER BASIN

## 13162225 JARBIDGE RIVER BELOW JARBIDGE, NV

LOCATION.--Lat 41°53'26", long 115°25'40", in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.9, T.46 N., R.58 E., Elko County, Nevada, Jarbidge North quad., Hydrologic Unit 17050102, Humboldt National Forest, on right bank, 1.0 mi north of Jarbidge.

DRAINAGE AREA.--30.6 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft<sup>3</sup>/s May 24, 1999, gage height, 5.50 ft; minimum daily, 2.5 ft<sup>3</sup>/s Aug. 23, 26, 29, 30, Sept. 16, 2000, Sept. 11, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 611 ft<sup>3</sup>/s May 29, gage height, 5.19 ft; minimum daily, 2.7 ft<sup>3</sup>/s Oct. 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.7	4.9	e5.1	13	5.1	22	33	290	17	5.0	4.3
2	4.9	e3.6	4.7	5.1	10	e5.0	21	33	231	15	6.2	4.4
3	4.9	e3.5	4.8	6.4	9.3	5.3	18	43	212	15	16	4.2
4	5.3	e3.7	4.8	6.0	8.1	5.2	16	46	177	14	9.7	4.2
5	4.7	e4.0	4.9	5.7	7.9	5.2	15	45	157	13	7.3	4.9
6	4.5	4.5	4.3	5.5	e7.5	5.2	14	40	142	13	6.6	4.3
7	4.4	4.8	4.6	5.5	e7.5	5.1	13	36	134	12	6.4	4.0
8	4.3	6.6	4.0	6.0	e7.0	5.1	15	38	131	11	6.0	3.8
9	4.3	5.7	5.1	6.4	e7.0	5.3	21	38	121	11	5.6	4.1
10	4.2	5.3	5.1	6.1	6.4	5.8	28	42	112	10	5.1	6.7
11	4.3	4.9	4.7	5.8	e6.0	6.5	37	48	99	9.5	4.9	5.2
12	4.2	4.9	4.7	5.8	6.1	7.4	48	52	84	8.8	4.9	4.6
13	4.3	5.5	4.9	5.9	6.9	11	47	68	73	8.3	4.9	4.6
14	4.3	5.2	5.0	6.2	6.7	14	41	99	64	8.1	4.7	4.6
15	4.3	4.8	4.8	5.9	6.3	14	32	128	58	7.8	5.6	4.3
16	4.4	4.9	4.8	5.7	6.7	15	27	140	51	7.3	5.8	4.1
17	4.4	4.7	4.9	5.6	6.1	14	26	137	46	7.1	5.0	4.9
18	4.3	4.5	4.5	5.6	5.9	12	25	128	43	8.0	4.9	5.1
19	4.3	4.7	e4.3	6.1	e5.8	11	25	109	41	8.0	4.6	4.7
20	4.2	5.1	4.7	6.6	5.8	11	31	104	40	7.7	3.8	4.3
21	4.1	7.4	4.7	6.8	5.8	9.8	35	130	36	7.1	4.5	4.2
22	4.6	7.3	4.5	6.4	5.8	10	38	185	33	6.6	6.5	4.1
23	4.9	6.6	4.5	6.7	5.5	11	60	240	30	6.2	7.3	3.8
24	4.9	6.1	e4.0	6.4	6.4	11	74	302	28	6.8	5.5	3.7
25	4.5	4.8	e4.4	6.4	e6.0	11	78	377	26	8.2	5.0	3.6
26	4.4	4.9	e4.6	6.4	e5.6	22	60	367	24	8.1	5.0	3.6
27	4.4	4.8	5.0	7.1	5.4	17	49	390	22	6.8	5.5	3.7
28	4.4	5.2	5.0	7.2	5.4	15	46	428	20	6.2	4.8	3.6
29	4.5	5.1	5.0	6.6	---	14	41	407	19	5.6	5.8	3.6
30	4.5	5.0	4.8	8.3	---	18	36	290	18	5.3	6.0	3.6
31	2.7	---	5.1	14	---	21	---	314	---	5.0	4.7	---
TOTAL	137.2	151.8	146.1	199.3	191.9	328.0	1039	4837	2562	283.5	183.6	128.8
MEAN	4.43	5.06	4.71	6.43	6.85	10.6	34.6	156	85.4	9.15	5.92	4.29
MAX	5.3	7.4	5.1	14	13	22	78	428	290	17	16	6.7
MIN	2.7	3.5	4.0	5.1	5.4	5.0	13	33	18	5.0	3.8	3.6
AC-FT	272	301	290	395	381	651	2060	9590	5080	562	364	255

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002	2003
MEAN	5.31	6.19	5.71	6.17	7.01	12.8
MAX	8.33	9.66	7.52	6.64	8.47	17.7
(WY)	1999	1999	1999	1999	2001	1999
MIN	3.66	4.67	4.71	5.22	5.42	9.46
(WY)	2002	2002	2003	2001	2002	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1998 - 2003
ANNUAL TOTAL	11746.0	10188.2	
ANNUAL MEAN	32.2	27.9	27.9
HIGHEST ANNUAL MEAN			39.1
LOWEST ANNUAL MEAN			19.4
HIGHEST DAILY MEAN	467	428	541
LOWEST DAILY MEAN	2.7	2.7	2.5
ANNUAL SEVEN-DAY MINIMUM	3.7	3.6	2.6
ANNUAL RUNOFF (AC-FT)	23300	20210	20180
10 PERCENT EXCEEDS	90	60	72
50 PERCENT EXCEEDS	5.8	6.2	6.9
90 PERCENT EXCEEDS	4.4	4.3	4.1

e Estimated

BRUNEAU RIVER BASIN

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID

LOCATION.--Lat 42°46'16", long 115°43'10", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.34, T.7 S., R.6 E., Owyhee County, Hot Springs quad., Hydrologic Unit 17050102, on right bank, 1 mi downstream from Hot Creek, 1.5 mi south of Hot Spring, 9 mi southeast of Bruneau, 16 mi downstream from East Fork, and at mile 22.0.

DRAINAGE AREA.--2,630 mi<sup>2</sup>, approximately. Mean elevation, 5,600 ft.

PERIOD OF RECORD.--July 1909 to March 1915, October 1943 to current year.

REVISED RECORDS.--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,598.5 ft above NGVD of 1929. Prior to Mar. 12, 1910, nonrecording gage at site 0.2 mi upstream at different datum. Mar. 12, 1910 to Mar. 15, 1915, nonrecording gage at present site and datum.

REMARKS.--Records good. Station equipment includes satellite telemetry. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 12,900 acres (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,860 ft<sup>3</sup>/s May 15, 1984, gage height, 13.03 ft; minimum, 6.9 ft<sup>3</sup>/s Oct. 31, Nov. 2, 2002, gage height, 3.02 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 920 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 9	2045	*1,620	*6.97	No other peak greater than base discharge.			

Minimum, 6.9 ft<sup>3</sup>/s Oct. 31, Nov. 2, gage height 3.02 ft, result of freezeup: minimum daily discharge, 34 ft<sup>3</sup>/s, Aug. 16, 17, 20, 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	37	80	95	135	105	206	554	1380	143	44	41
2	46	35	90	88	185	100	225	512	1160	133	43	40
3	48	35	83	82	184	93	234	485	1020	126	45	40
4	50	44	73	92	148	99	223	526	917	119	52	38
5	51	60	72	94	132	101	211	720	812	113	72	38
6	52	67	81	94	115	95	206	759	725	109	68	37
7	52	74	76	88	100	95	197	640	671	104	55	37
8	50	76	69	68	67	93	190	564	648	99	49	38
9	48	76	59	52	63	92	191	615	622	94	44	37
10	48	81	56	70	85	91	207	719	589	90	41	36
11	46	85	73	115	105	95	250	839	562	84	39	37
12	46	80	99	113	102	98	277	827	521	79	37	39
13	46	76	91	106	106	111	302	766	468	75	36	44
14	47	74	87	102	132	120	330	741	423	71	35	42
15	48	78	85	97	127	142	332	792	390	69	35	40
16	48	78	84	98	e130	164	314	870	371	68	34	39
17	48	75	88	97	e120	178	301	929	353	65	34	38
18	49	74	92	89	e120	176	316	922	333	62	36	38
19	50	74	80	84	123	164	336	878	313	61	36	39
20	50	71	67	76	111	148	338	795	308	60	34	43
21	51	73	67	76	108	141	349	754	296	60	34	43
22	53	74	86	94	104	137	354	790	270	59	58	41
23	56	77	92	108	105	132	375	934	245	57	77	40
24	57	80	84	103	102	133	528	1100	224	53	47	39
25	62	80	74	100	81	136	590	1220	208	53	46	38
26	64	81	56	102	73	143	589	1320	195	57	42	37
27	62	73	61	106	74	183	555	1340	181	59	40	37
28	61	65	101	110	85	254	554	1330	169	60	38	36
29	60	61	103	117	---	240	600	1470	161	55	38	37
30	61	72	94	130	---	207	658	1530	155	50	38	37
31	41	---	93	124	---	199	---	1500	---	46	38	---
TOTAL	1597	2086	2496	2970	3122	4265	10338	27741	14690	2433	1365	1166
MEAN	51.5	69.5	80.5	95.8	112	138	345	895	490	78.5	44.0	38.9
MAX	64	85	103	130	185	254	658	1530	1380	143	77	44
MIN	41	35	56	52	63	91	190	485	155	46	34	36
AC-FT	3170	4140	4950	5890	6190	8460	20510	55020	29140	4830	2710	2310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2003, BY WATER YEAR (WY)

MEAN	98.0	120	126	161	211	395	778	1243	975	281	97.9	79.1
MAX	185	248	425	724	905	1901	1882	4102	3122	1044	334	170
(WY)	1985	1910	1965	1971	1986	1910	1952	1984	1984	1984	1984	1984
MIN	42.8	62.6	58.7	80.2	98.2	119	196	277	97.8	55.3	31.5	34.8
(WY)	2002	2002	1991	1991	1994	1955	1968	1992	1992	1992	2001	1981

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1909 - 2003
ANNUAL TOTAL	85018	74269	
ANNUAL MEAN	233	203	380
HIGHEST ANNUAL MEAN			1012
LOWEST ANNUAL MEAN			113
HIGHEST DAILY MEAN	1200	Jun 3	1530
LOWEST DAILY MEAN	35	Sep 6	34
ANNUAL SEVEN-DAY MINIMUM	37	Aug 17	35
ANNUAL RUNOFF (AC-FT)	168600		147300
10 PERCENT EXCEEDS	730		606
50 PERCENT EXCEEDS	94		90
90 PERCENT EXCEEDS	42		39

e Estimated

BRUNEAU RIVER BASIN

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID  
(Hydrologic Benchmark station)

LOCATION.--Lat 42°47'06", long 115°59'00", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec. 28, T. 7 S., R. 4 E., Owyhee County, Little Valley quad., Hydrologic Unit 17050102, U.S. Bureau of Land Management lands, on left bank, 0.2 mi upstream from confluence with Little Jacks Creek, 11.5 mi southwest of Bruneau, and at mile 12.7.

DRAINAGE AREA.--253 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1938 to October 1949, July 1965 to current year. Prior to October 1968, published as "Wickahoney Creek near Bruneau".

REVISED RECORDS.--WDR Idaho 1967: Drainage area.

GAGE.--Water-stage recorder and a self-cleaning broad-crested concrete weir. Elevation of gage is 2,810 ft above NGVD of 1929, by barometer. December 1938 to October 1949, at site 145 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records poor. No diversion or regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft<sup>3</sup>/s Jan. 2, 1997, gage height, 5.82 ft; no flow for long periods most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 278 ft<sup>3</sup>/s Aug. 22, gage height, 3.46 ft; no flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.56	0.00
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.21	0.000
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2003, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	1.09	1.06	0.62	5.33	6.96	17.8	13.0	6.36	3.30	1.36	0.98	1.00																																																					
MAX	13.6	13.1	8.07	80.4	69.8	110	115	89.4	54.6	18.0	15.3	13.9																																																					
(WY)	1985	1985	1984	1997	1986	1972	1984	1984	1984	1984	1984	1984																																																					
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																																																					
(WY)	1940	1940	1940	1940	1942	1942	1940	1940	1939	1939	1939	1939																																																					

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1939 - 2003
ANNUAL TOTAL	905.19	6.56	
ANNUAL MEAN	2.48	0.018	4.96
HIGHEST ANNUAL MEAN			32.6
LOWEST ANNUAL MEAN			0.000
HIGHEST DAILY MEAN	107	Apr 2	1210
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
ANNUAL RUNOFF (AC-FT)	1800		3600
10 PERCENT EXCEEDS	5.4	0.00	11
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



SNAKE RIVER MAIN STEM

13171500 C. J. STRIKE RESERVOIR NEAR GRAND VIEW, ID

LOCATION.--Lat 42°56'38", long 115°58'28", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.34, T.5 S., R.4 E., Owyhee County, C.J. Strike Dam quad., Hydrologic Unit 17050103, on left bank near the dam on Snake River, 7 mi southeast of Grand View, at mile 494.0.

DRAINAGE AREA.--40,800 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March 1952 to September 1967 (month-end contents only), July 1986 to current year.

REVISED RECORDS.--WDR ID-87-1: 1986 (M, m).

GAGE.--Water-stage recorder. Datum of gage is set to NGVD of 1929.

REMARKS.--Station includes satellite telemetry. Reservoir is formed by earthfill, rock-faced dam. Storage began in February 1952. Total capacity, 250,000 acre-ft at elevation 2,455 ft (top of spillway gates), of which about 50,000 acre-ft is controlled storage. Water is used for power generation by Idaho Power Co. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 253,700 acre-ft Mar. 31, 1956, elevation, 2,455.49 ft; minimum since first filling, 215,600 acre-ft Mar. 3-10, 1991, elevation, 2,450.14 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 250,600 acre-ft Sept. 12, elevation, 2,455.07 ft; minimum, 245,500 acre-ft Dec. 16, elevation, 2,454.40 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

2,554.0	242,600
2,555.0	250,000
2,556.0	257,600

RESERVOIR STORAGE, in (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249500	247200	248600	249100	247200	248200	---	248200	248600	249400	248600	250000
2	247900	248300	248200	248300	248000	248000	---	248100	248400	249400	248700	249500
3	249200	247900	247900	247900	248400	249100	---	248300	248000	249100	249200	249400
4	249600	248600	248500	248000	249200	249100	---	248700	248400	249300	249200	249600
5	248200	247600	247400	248400	247900	247300	---	248600	247900	249200	249400	249700
6	249800	248400	247100	248400	248200	248600	---	248700	247900	249300	249600	249100
7	249400	248000	247900	248400	249200	247900	---	248800	247400	249100	248900	248300
8	249200	248800	248000	247900	248000	248200	---	248700	246600	249200	248900	248900
9	248900	247900	248600	247800	248800	248200	---	248700	247700	249400	248800	248700
10	248400	247600	248900	248200	249100	248700	---	249000	248900	248900	249300	248800
11	248900	248800	248100	248400	249100	248500	---	248000	249300	249100	249600	250000
12	248600	247600	248300	248600	248700	248800	---	248400	249600	249300	249500	249600
13	249600	247900	248200	247900	248700	248400	---	248000	249600	249300	249200	249400
14	248500	248700	247600	248500	248900	249000	---	247600	249500	249300	249300	249200
15	248900	247900	248200	248600	248400	248600	---	247600	249100	249400	249300	249300
16	248400	248600	247400	248100	247900	249100	---	248700	249100	249200	249400	249600
17	248500	249300	248300	248100	248200	248100	---	248200	248900	249100	249300	249500
18	250200	248700	248400	247600	248300	248800	---	248200	248600	249000	249500	248600
19	248800	249000	248600	248300	247600	248700	---	248400	249300	249100	249400	249100
20	248200	249400	248400	248200	247900	248600	---	248800	249400	249000	249400	248400
21	248400	248700	248300	248000	248500	247800	---	248800	249100	249100	249600	248700
22	248000	249100	248900	247900	249100	247400	---	248200	248900	248900	249900	248500
23	248700	248500	248400	248100	248700	247700	---	248000	249100	248500	250000	248500
24	248400	249100	248000	248400	248100	248700	248400	248300	249500	248600	249400	248300
25	247900	248400	248400	248600	248700	248700	248300	248600	249400	249600	249300	248800
26	247300	248300	248200	248700	249200	---	248500	248900	249500	248900	249400	248400
27	248000	249600	247900	248400	248000	---	249000	248600	249300	249100	249700	248400
28	248700	247500	248600	248700	248300	---	248600	247700	249200	249500	249600	248500
29	247400	247900	248700	248500	---	---	248300	248100	249400	249700	249400	248600
30	248100	248600	248800	248200	---	---	248200	248200	249100	249400	249500	249000
31	247900	---	247300	248400	---	---	---	248500	---	248700	249700	---
MAX	250200	249600	248900	249100	249200	---	---	249000	249600	249700	250000	250000
MIN	247300	247200	247100	247600	247200	---	---	247600	246600	248500	248600	248300
†	2454.71	2454.81	2454.64	2454.79	2454.77	---	2454.76	2454.80	2454.88	2454.82	2454.96	2454.86
‡	-1400	700	-1300	1100	-100	---	---	300	600	-400	1000	-700
CAL YR 2002	MAX 250200	MIN 246000	‡ -500									
WTR YR 2003			‡ -300									

† Elevation, in feet, at end of month.  
‡ Change in contents, in acre-feet.

## SNAKE RIVER MAIN STEM

## 13171620 SNAKE RIVER BELOW C.J. STRIKE DAM NEAR GRAND VIEW, ID

LOCATION.--Lat 42°56'50", long 115°58'49", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.33, T.5 S., R.4 E., Owyhee County, C.J. Strike Dam quad., Hydrologic Unit 17050103, on downstream left bank end of bridge about 0.25 mi below dam, 10 mi northwest of Bruneau, 6.5 mi southeast of Grand View, and at mile 493.8.

DRAINAGE AREA.--40,800 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--April 1985 to current year.

REVISED RECORDS.--WDR ID-02-2: 2001 (M).

GAGE.--Water-stage recorder. Elevation of gage is 2,350 ft above NGVD of 1929, from topographic map.

REMARKS.--Station equipment includes radio telemetry.

COOPERATION.--Discharge records furnished by Idaho Power and reviewed by U.S. Geological Survey beginning April 2001.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft<sup>3</sup>/s June 20, 21, 1997, gage height, 14.88 ft; minimum, 2,000 ft<sup>3</sup>/s Mar. 4, 1988, gage height, 3.28 ft; minimum daily, 3,880 ft<sup>3</sup>/s June 12, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,810 ft<sup>3</sup>/s Oct. 20; minimum daily, 4,150 ft<sup>3</sup>/s June 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6920	7100	6840	6380	7330	6470	6200	6300	6190	4420	4400	5900
2	6840	6090	7420	7240	6830	6710	6690	6240	6120	4550	4370	6250
3	5850	6780	7100	6830	7480	6450	6200	6270	5830	4370	4400	5930
4	6840	6330	6880	6840	6490	6780	6190	6190	5460	4440	4650	5850
5	7600	7120	7130	6550	6950	6960	6140	6480	5870	4640	5080	6150
6	6320	6850	6900	6640	6550	6300	6080	6790	5360	4700	4830	6170
7	6920	6660	6470	6790	6610	6850	6060	6600	5600	4510	5260	5800
8	6990	6480	6760	7100	7060	6320	6370	6520	5480	4360	4750	5850
9	7090	7340	6560	6750	6240	6390	5940	6390	4320	4330	4700	5970
10	6590	7260	6580	6240	6340	6480	5850	6730	4150	4450	4460	5530
11	6660	6690	7030	6530	6680	6610	6050	7550	4560	4310	4690	5630
12	7040	7590	6800	6840	7010	6230	6030	6930	4650	4300	5040	6040
13	6790	6680	6950	7260	6660	6850	5780	7070	4780	4320	4700	5920
14	7170	6730	7090	6310	6200	6560	5690	6550	4630	4350	4800	5820
15	6950	7480	6620	6980	7150	6550	5630	5830	4630	4420	4820	5860
16	7160	6680	6860	6910	6880	6470	6330	5780	4600	4470	4810	5480
17	6960	6550	6190	6930	6770	6710	6140	6120	4620	4460	4840	6200
18	7240	7120	7200	6680	6820	6750	5850	6050	4600	4470	4940	6010
19	7330	6790	6750	6430	7360	6880	6590	6130	4440	4430	4970	5490
20	7810	6550	6570	6710	6490	6480	6610	6170	4780	4450	4910	6110
21	7160	7530	6730	6890	6450	6760	7180	6270	4790	4460	4970	6010
22	7270	6880	6340	6800	6640	6500	6970	6280	4660	4740	5190	6060
23	6720	6900	7360	6620	6860	6330	6800	6150	4580	4520	5610	5840
24	7120	6830	7050	6570	6870	6170	6840	5910	4790	4450	6310	5980
25	7420	7020	6460	6540	6570	6520	7150	6030	4730	4380	6350	5360
26	7710	7180	6870	7050	6490	6920	6530	6130	4760	5000	5720	5940
27	6610	6400	7100	6840	7020	6670	6790	6940	4740	4770	5850	5890
28	6640	7700	6590	7180	6600	6340	6830	6940	4540	4460	5650	5940
29	7480	6740	6420	7400	---	6070	6830	6270	4600	4730	5810	6050
30	6890	6700	6880	7180	---	6650	6650	6410	4590	5000	5550	5960
31	7230	---	7780	7080	---	6490	---	6120	---	4910	5910	---
TOTAL	217320	206750	212280	211090	189400	203220	190990	198140	147450	140170	158340	176990
MEAN	7010	6892	6848	6809	6764	6555	6366	6392	4915	4522	5108	5900
MAX	7810	7700	7780	7400	7480	6960	7180	7550	6190	5000	6350	6250
MIN	5850	6090	6190	6240	6200	6070	5630	5780	4150	4300	4370	5360
AC-FT	431100	410100	421100	418700	375700	403100	378800	393000	292500	278000	314100	351100

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

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	9681	9825	10100	10600	10950	12010	11920	11070	11210	6730	6996	8370							
MAX	18320	16300	18090	18390	27560	29390	26950	25470	34180	10510	10450	14800							
(WY)	1987	1987	1987	1997	1997	1997	1986	1986	1997	1997	1997	1997							
MIN	7010	6892	4910	6734	6764	6555	6049	5090	4580	4507	5046	5637							
(WY)	2003	2003	1990	2002	2003	2003	1992	1992	1992	2002	2002	2002							

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1985 - 2003	
ANNUAL TOTAL	2273080		2252140			
ANNUAL MEAN	6228		6170		9897	
HIGHEST ANNUAL MEAN					18090	
LOWEST ANNUAL MEAN					6170	
HIGHEST DAILY MEAN	9050		7810		44000	
LOWEST DAILY MEAN	4000		4150		3880	
ANNUAL SEVEN-DAY MINIMUM	4040		4350		4040	
ANNUAL RUNOFF (AC-FT)	4509000		4467000		7170000	
10 PERCENT EXCEEDS	7460		7120		17000	
50 PERCENT EXCEEDS	6460		6450		8020	
90 PERCENT EXCEEDS	4760		4600		5840	



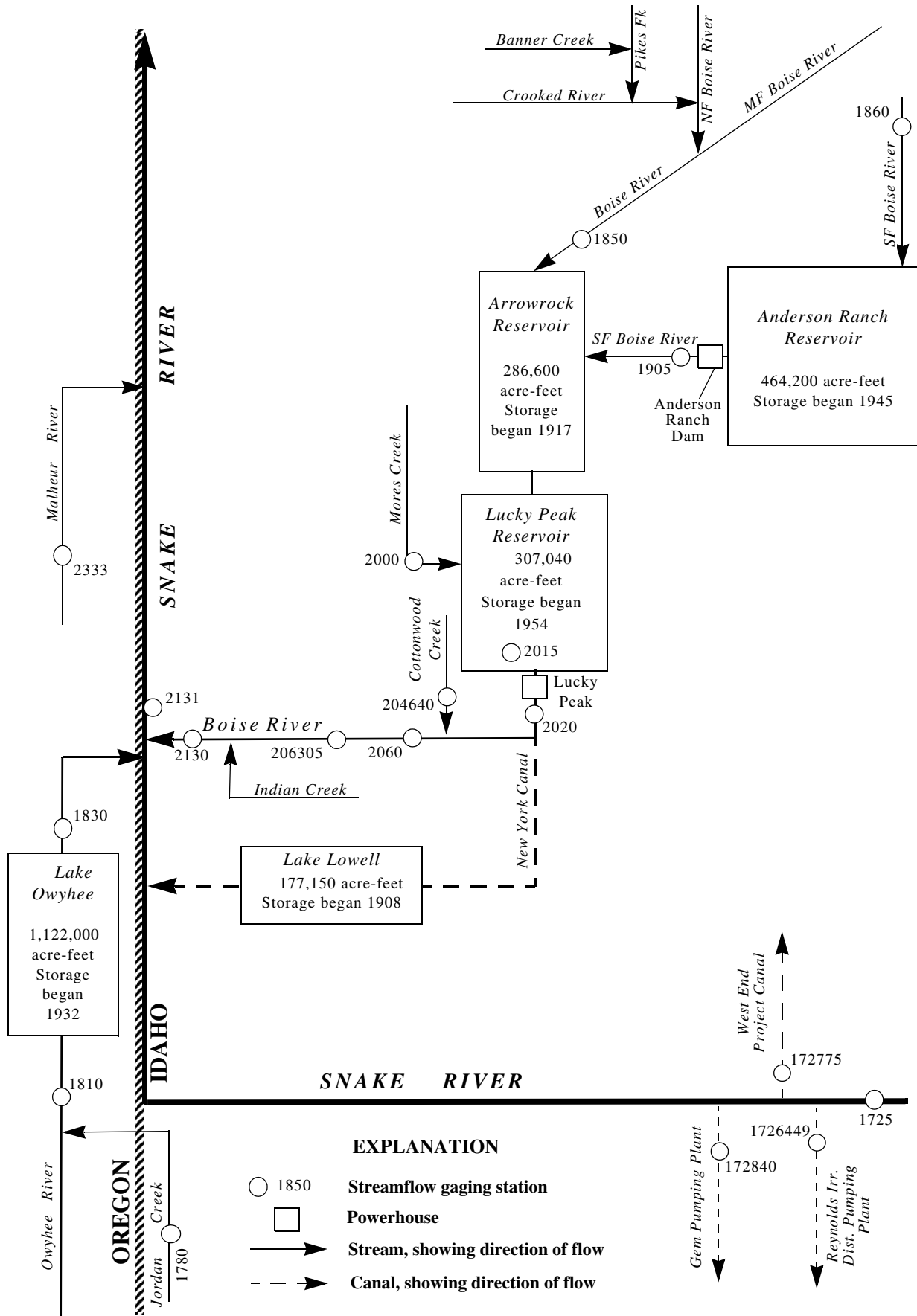


Figure 13. Schematic diagram showing gaging stations in Boise, Owyhee, Malheur and middle Snake River basins.

DIVERSIONS FROM SNAKE RIVER  
 BETWEEN SNAKE RIVER NEAR MURPHY AND SNAKE RIVER AT NYSSA

131726449 REYNOLDS IRRIGATION DISTRICT PUMPING PLANT NEAR WALTERS FERRY, ID

LOCATION.--Lat 43°20'02", long 116°37'02", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.18, T.1 S., R.2 W., Owyhee County, Walters Butte quad., Hydrologic Unit 17050103, on left bank of Snake River, approximately 1 mi southwest of Walters Ferry.

PERIOD OF RECORD.--April 2000 to September 2003 (irrigation seasons only) (discontinued).

GAGE.--In-line flow sensor with datalogger.

REMARKS.--Records poor. In-line flow sensor rated by ultrasonic flowmeter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 34 ft<sup>3</sup>/s June 7, 2000; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	---	---	---	---	---	0.00	26	e30	29	e30	e32
2	0.00	---	---	---	---	---	0.00	25	e30	29	e30	e32
3	0.00	---	---	---	---	---	0.00	25	e26	29	e30	e32
4	0.00	---	---	---	---	---	0.00	25	e26	29	e30	e32
5	0.00	---	---	---	---	---	0.00	25	e26	29	e30	e32
6	0.00	---	---	---	---	---	0.00	25	e26	29	e30	e32
7	0.00	---	---	---	---	---	0.00	25	e26	29	e30	e32
8	0.00	---	---	---	---	---	0.00	25	e26	28	e32	e32
9	e0.00	---	---	---	---	---	0.00	25	e26	29	e32	e32
10	e0.00	---	---	---	---	---	0.00	26	e28	29	e32	e32
11	e0.00	---	---	---	---	---	0.00	26	e30	29	e32	e32
12	e0.00	---	---	---	---	---	0.00	26	e30	29	e32	e32
13	e0.00	---	---	---	---	---	0.00	25	e30	28	e32	e32
14	e0.00	---	---	---	---	---	1.8	25	e30	29	e32	e32
15	e0.00	---	---	---	---	---	12	e25	e30	30	e32	e28
16	e0.00	---	---	---	---	---	17	e26	e30	30	e32	e24
17	e0.00	---	---	---	---	---	17	e26	e30	30	e32	e24
18	e0.00	---	---	---	---	---	17	e26	e30	30	e32	e24
19	e0.00	---	---	---	---	---	17	e26	e30	30	e32	e24
20	e0.00	---	---	---	---	---	17	e26	e30	30	e32	e24
21	e0.00	---	---	---	---	---	20	e26	29	30	e32	e24
22	e0.00	---	---	---	---	---	24	e28	29	30	32	e24
23	e0.00	---	---	---	---	---	24	e30	29	30	32	e24
24	e0.00	---	---	---	---	---	25	e30	29	30	e32	e24
25	e0.00	---	---	---	---	---	25	e30	29	e30	e32	e25
26	e0.00	---	---	---	---	---	25	e30	29	e30	e32	25
27	e0.00	---	---	---	---	---	25	e30	29	e30	e32	25
28	e0.00	---	---	---	---	---	25	e30	29	e30	e32	24
29	e0.00	---	---	---	---	---	25	e30	30	30	e32	24
30	e0.00	---	---	---	---	---	26	e30	30	e30	e32	24
31	e0.00	---	---	---	---	---	---	e30	---	e30	e32	---
TOTAL	7.10	---	---	---	---	---	342.80	833	862	914	978	839
MEAN	0.23	---	---	---	---	---	11.4	26.9	28.7	29.5	31.5	28.0
MAX	7.1	---	---	---	---	---	26	30	30	30	32	32
MIN	0.00	---	---	---	---	---	0.00	25	26	28	30	24
AC-FT	14	---	---	---	---	---	680	1650	1710	1810	1940	1660

e Estimated

DIVERSIONS FROM SNAKE RIVER  
BETWEEN SNAKE RIVER NEAR MURPHY AND SNAKE RIVER AT NYSSA

13172775 WEST END PROJECT CANAL NEAR MELBA, ID

LOCATION.--Lat 43°25'45", long 116°42'19", in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.16, T.1 N., R.3 W., Canyon County, Givens Hot Springs Quad., Hydrologic Unit 17050103, on right bank of Snake River, approximately 1 mi north of Givens Hot Springs.

PERIOD OF RECORD.--April 2000 to September 2003 (irrigation season only) (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,720 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Canal carries water pumped from the Snake River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 81 ft<sup>3</sup>/s June 30, 2000; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	0.00	---	---	---	---	12	23	e60	73	76	61
2	14	0.00	---	---	---	---	5.4	16	e60	75	73	61
3	14	0.00	---	---	---	---	5.0	14	e60	79	69	60
4	15	0.00	---	---	---	---	7.2	7.3	e55	72	66	58
5	8.7	0.00	---	---	---	---	4.7	7.6	e60	71	67	55
6	0.00	1.7	---	---	---	---	3.8	8.7	e65	72	71	54
7	9.6	3.7	---	---	---	---	19	14	e65	73	72	51
8	17	4.8	---	---	---	---	28	11	e65	75	72	52
9	11	2.1	---	---	---	---	39	14	e65	78	66	60
10	0.18	0.83	---	---	---	---	42	21	e60	80	64	53
11	0.14	0.00	---	---	---	---	44	22	e55	73	62	47
12	0.13	0.00	---	---	---	---	32	26	e65	75	72	48
13	0.12	0.00	---	---	---	---	12	32	e65	73	70	43
14	0.12	0.00	---	---	---	---	21	31	e70	68	72	23
15	0.12	---	---	---	---	---	25	e42	e70	71	70	44
16	0.12	---	---	---	---	---	24	e40	e70	73	70	49
17	0.04	---	---	---	---	---	25	e28	e70	74	69	45
18	0.00	---	---	---	---	---	24	e14	e70	77	67	44
19	0.00	---	---	---	---	---	14	e38	e70	71	71	43
20	0.00	---	---	---	---	---	9.4	e55	69	61	78	33
21	0.00	---	---	---	---	---	34	e60	72	70	75	11
22	0.00	---	---	---	---	---	46	e60	61	72	55	35
23	0.00	---	---	---	---	---	52	e60	66	72	4.6	47
24	0.00	---	---	---	---	---	52	e60	74	72	0.00	44
25	0.00	---	---	---	---	---	47	e60	73	71	52	33
26	0.00	---	---	---	---	---	39	e40	77	50	68	24
27	0.00	---	---	---	---	---	22	e65	72	0.00	67	26
28	0.00	---	---	---	---	---	35	e60	75	0.00	71	17
29	0.00	---	---	---	---	---	41	e65	69	49	68	39
30	0.00	---	---	---	---	---	27	e65	72	72	67	45
31	0.00	---	---	---	---	---	---	e70	---	77	61	---
TOTAL	109.27	---	---	---	---	---	791.5	1129.6	2000	2069.00	1985.60	1305
MEAN	3.52	---	---	---	---	---	26.4	36.4	66.7	66.7	64.1	43.5
MAX	19	---	---	---	---	---	52	70	77	80	78	61
MIN	0.00	---	---	---	---	---	3.8	7.3	55	0.00	0.00	11
AC-FT	217	---	---	---	---	---	1570	2240	3970	4100	3940	2590

e Estimated

DIVERSIONS FROM SNAKE RIVER  
BETWEEN SNAKE RIVER NEAR MURPHY AND SNAKE RIVER AT NYSSA

13172840 GEM PUMPING PLANT NEAR MARSING, ID

LOCATION.--Lat 43°30'56", long 116°47'08", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.14, T.2 S., R.4 W., Owyhee County, Marsing quad., Hydrologic Unit 17050103, on left bank of Snake River, approximately 2 mi southeast of Marsing.

PERIOD OF RECORD.--April 1989 to October 2003 (irrigation seasons only) (discontinued).

GAGE.--In-line flow sensor with datalogger.

REMARKS.--Records fair. In-line flow sensor rated by ultrasonic flowmeter and current meter measurements.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 355 ft<sup>3</sup>/s June 23, 2002, June 25, 2003; no flow for long periods each year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e191	---	---	---	---	---	0.00	286	301	e343	e347	e347
2	e188	---	---	---	---	---	0.00	286	273	e343	345	e346
3	e181	---	---	---	---	---	0.00	283	258	344	349	e349
4	e181	---	---	---	---	---	0.00	286	256	343	345	e349
5	e182	---	---	---	---	---	0.00	e286	283	339	345	e349
6	e182	---	---	---	---	---	0.00	e287	e298	342	e347	e347
7	e182	---	---	---	---	---	e61	e286	e300	341	e348	e349
8	e165	---	---	---	---	---	e81	e286	e298	343	e348	e349
9	e160	---	---	---	---	---	e81	e286	e313	339	e346	e349
10	e148	---	---	---	---	---	e80	e286	e330	336	e347	e350
11	e123	---	---	---	---	---	82	e287	e341	e336	e348	e323
12	e95	---	---	---	---	---	81	e288	e345	e335	e349	e306
13	e78	---	---	---	---	---	81	e288	e342	e336	e348	e306
14	e78	---	---	---	---	---	e156	e288	e349	e337	e347	e307
15	e77	---	---	---	---	---	e167	e287	e344	e337	e347	e307
16	77	---	---	---	---	---	e166	e287	e349	e339	e348	e308
17	77	---	---	---	---	---	e206	e286	e349	e341	e350	e307
18	1.6	---	---	---	---	---	e237	e288	e349	e341	e349	307
19	0.00	---	---	---	---	---	e240	e287	e348	e339	348	306
20	0.00	---	---	---	---	---	e241	e288	e346	e339	349	306
21	0.00	---	---	---	---	---	e265	e289	e346	e339	e347	307
22	0.00	---	---	---	---	---	e282	e292	e344	e340	e348	e304
23	0.00	---	---	---	---	---	e283	e292	e354	e340	e349	e305
24	0.00	---	---	---	---	---	e283	e291	e352	e340	351	e278
25	0.00	---	---	---	---	---	e279	e288	e355	e341	e350	e265
26	0.00	---	---	---	---	---	e281	e288	e351	e351	e349	e265
27	0.00	---	---	---	---	---	e281	e290	e349	e352	e346	e264
28	0.00	---	---	---	---	---	e283	e289	e347	e351	e347	e260
29	0.00	---	---	---	---	---	e281	e291	e345	e350	e345	e263
30	0.00	---	---	---	---	---	285	e296	e343	e349	e346	e263
31	0.00	---	---	---	---	---	---	e299	---	e349	e345	---
TOTAL	2366.60	---	---	---	---	---	4763.00	8937	9858	10595	10773	9341
MEAN	76.3	---	---	---	---	---	159	288	329	342	348	311
MAX	191	---	---	---	---	---	285	299	355	352	351	350
MIN	0.00	---	---	---	---	---	0.00	283	256	335	345	260
AC-FT	4690	---	---	---	---	---	9450	17730	19550	21020	21370	18530

DISCHARGE, CUBIC FEET PER SECOND, OCTOBER 2003  
DAILY MEAN VALUES

DAY	OCT	DAY	OCT	DAY	OCT	DAY	OCT	DAY	OCT	DAY	OCT
1	e259	6	e262	11	e50	16	e0.00	21	e0.00	26	e0.00
2	e259	7	e249	12	e0.00	17	e0.00	22	e0.00	27	e0.00
3	e260	8	e245	13	e0.00	18	e0.00	23	e0.00	28	e0.00
4	e261	9	e246	14	e0.00	19	e0.00	24	e0.00	29	e0.00
5	e262	10	e246	15	e0.00	20	e0.00	25	e0.00	30	e0.00
										31	e0.00
TOTAL	2599.00										
MEAN	83.8										
MAX	262										
MIN	0.00										
AC-FT	5160										

e Estimated





OWYHEE RIVER BASIN

13181000 OWYHEE RIVER NEAR ROME, OR

LOCATION.--Lat 42°52'02", long 117°38'52", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.14, T.31 S., R.41 E., Malheur County, Oregon, Rome quad., Hydrologic Unit 17050107, on right bank 0.5 mi downstream from Jordan Creek, 2.6 mi north of Rome, and at mile 122.4.

DRAINAGE AREA.--8,000 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft above NGVD of 1929. Prior to Feb. 10, 1960, at datum 0.24 ft lower.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow regulated by Antelope Reservoir, capacity, 70,000 acre-ft, increased in 1970, and Wild Horse Reservoir, capacity, 32,690 acre-ft, and numerous small reservoirs. Diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,700 ft<sup>3</sup>/s Mar. 18, 1993, gage height, 20.11 ft; minimum, 42 ft<sup>3</sup>/s Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 11	1115	*4,780	*6.08	No peaks greater than base discharge.			

Minimum daily, 60 ft<sup>3</sup>/s Sept. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	128	134	173	2120	208	339	503	468	153	97	64
2	116	126	144	178	2250	213	322	553	489	150	93	65
3	126	118	150	169	1450	205	306	514	475	146	96	66
4	127	119	144	171	834	201	294	502	444	141	105	83
5	121	119	146	174	582	188	294	537	420	146	129	77
6	119	124	139	180	436	189	300	910	385	138	126	71
7	119	125	139	175	344	185	309	1040	348	132	119	66
8	119	126	137	168	276	185	341	1080	314	124	115	60
9	119	131	138	142	250	181	441	1130	262	117	102	61
10	117	136	131	152	240	180	734	1750	253	125	96	67
11	114	139	134	182	237	184	1170	3650	244	133	88	72
12	114	143	140	185	231	183	635	2900	225	137	90	75
13	112	143	142	191	238	206	489	2120	216	143	92	74
14	116	148	152	221	256	256	424	1580	206	129	96	73
15	117	154	152	304	265	272	411	1280	200	121	95	76
16	117	154	158	268	286	272	410	1120	199	110	91	77
17	117	150	165	243	462	264	379	1050	192	102	85	79
18	117	148	163	232	460	257	347	963	188	98	81	77
19	119	148	161	232	417	260	335	904	191	95	75	77
20	119	148	153	223	349	258	328	861	188	95	73	77
21	121	148	154	212	307	249	314	815	183	93	73	77
22	121	148	152	204	285	240	421	754	192	86	78	78
23	122	148	156	205	260	233	439	657	180	79	75	79
24	124	148	146	203	246	237	402	586	173	82	80	80
25	124	148	147	212	232	228	408	534	170	77	92	79
26	123	145	147	234	227	232	456	524	170	84	95	78
27	124	143	140	284	218	322	505	488	175	88	93	81
28	125	143	147	366	204	469	500	466	174	96	87	81
29	127	133	160	631	---	424	494	464	161	94	79	82
30	129	133	156	805	---	389	499	494	160	94	75	82
31	128	---	173	1070	---	357	---	489	---	95	67	---
TOTAL	3720	4164	4600	8389	13962	7727	13046	31218	7645	3503	2838	2234
MEAN	120	139	148	271	499	249	435	1007	255	113	91.5	74.5
MAX	129	154	173	1070	2250	469	1170	3650	489	153	129	83
MIN	107	118	131	142	204	180	294	464	160	77	67	60
AC-FT	7380	8260	9120	16640	27690	15330	25880	61920	15160	6950	5630	4430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2003, BY WATER YEAR (WY)

MEAN	161	212	375	667	1209	2453	2831	1946	867	252	150	136
MAX	442	593	2898	4461	8820	9404	16960	10470	4870	1035	452	361
(WY)	1976	1971	1965	1971	1986	1972	1952	1984	1984	1984	1984	1984
MIN	85.3	107	104	114	129	233	144	86.5	89.6	61.2	56.0	62.5
(WY)	1955	1955	1955	1955	1955	1977	1992	1992	1992	1968	1992	1955

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1950 - 2003
ANNUAL TOTAL	226827	103046	
ANNUAL MEAN	621	282	935
HIGHEST ANNUAL MEAN			3400
LOWEST ANNUAL MEAN			162
HIGHEST DAILY MEAN	8150	Apr 2	3650
LOWEST DAILY MEAN	69	Aug 23	60
ANNUAL SEVEN-DAY MINIMUM	75	Aug 18	67
ANNUAL RUNOFF (AC-FT)	449900	204400	677600
10 PERCENT EXCEEDS	1360	504	2480
50 PERCENT EXCEEDS	177	160	231
90 PERCENT EXCEEDS	94	81	107

## OWYHEE RIVER BASIN

## 13183000 OWYHEE RIVER BELOW OWYHEE DAM, OR

LOCATION.--Lat 43°39'17", long 117°15'16", in SE $\frac{1}{4}$  sec.18, T.22 S., R.45 E., Malheur County, Oregon, Grassy Mountain quad., Hydrologic Unit 17050110, on left bank 0.8 mi downstream from Owyhee Dam, 20 mi southwest of Nyssa, and at mile 27.3.

DRAINAGE AREA.--11,160 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--February 1929 to current year.

REVISED RECORDS.--WSP 983: 1941-42. WSP 1397: 1930, 1933, 1946.

GAGE.--Water-stage recorder. Datum of gage is 2,343.67 ft above NGVD of 1929 (levels by Bureau of Reclamation).

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow regulated since October 1932 by Lake Owyhee (sta 13182500), and by many smaller reservoirs. Diversion of up to 457,000 acre-ft from Lake Owyhee during the year for irrigation of lands downstream from station and outside the basin. Many smaller diversions upstream from Lake Owyhee for irrigation upstream from station. Computation of monthly and annual adjusted flows discontinued in 1991.

AVERAGE DISCHARGE.--71 years (water years 1933-2003), 408 ft<sup>3</sup>/s, 295,300 acre-ft/yr, not adjusted for storage or diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft<sup>3</sup>/s Apr. 15, 1952, gage height, 15.70 ft; no flow for part of Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 188 ft<sup>3</sup>/s Oct. 1-10; minimum daily, 10 ft<sup>3</sup>/s Oct. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	14	14	14	14	14	14	143	153	148	159	161
2	188	14	14	14	14	14	14	143	153	148	158	161
3	188	14	14	14	14	14	14	143	152	148	160	161
4	188	14	14	14	14	14	14	142	152	148	161	161
5	188	14	14	14	14	14	14	141	153	147	162	161
6	188	14	14	14	14	14	14	141	153	147	162	162
7	188	14	14	14	14	14	14	141	153	146	162	161
8	188	14	14	14	14	14	14	140	153	147	162	162
9	188	14	14	14	14	14	14	138	153	146	161	163
10	188	14	14	14	14	14	14	142	164	146	161	162
11	76	14	14	14	14	14	14	142	173	146	161	163
12	10	14	14	14	14	14	14	142	173	146	160	163
13	11	14	14	14	14	14	14	141	172	145	160	164
14	12	14	14	14	14	14	14	142	172	144	160	165
15	12	14	14	14	14	14	14	143	171	144	160	163
16	12	14	14	14	14	14	14	143	170	145	161	164
17	13	14	14	14	14	14	14	143	170	157	141	164
18	14	14	14	14	14	14	14	143	151	164	161	163
19	14	14	14	14	14	14	15	143	139	162	160	163
20	14	14	14	14	14	14	22	144	152	162	160	164
21	14	14	14	14	14	14	87	145	151	161	160	165
22	14	14	14	14	14	14	151	146	150	161	161	165
23	14	14	14	14	14	14	149	146	149	160	161	164
24	14	14	14	14	14	14	149	137	149	161	162	165
25	14	14	14	14	14	14	145	147	149	162	161	164
26	14	14	14	14	14	14	145	147	148	161	161	164
27	14	14	14	14	14	14	145	147	149	161	162	164
28	14	14	14	14	14	14	146	148	150	160	164	162
29	14	14	14	14	---	14	145	149	149	160	164	161
30	14	14	14	14	---	14	144	149	148	159	162	162
31	14	---	14	14	---	14	---	150	---	159	162	---
TOTAL	2222	420	434	434	392	434	1695	4451	4674	4751	4972	4887
MEAN	71.7	14.0	14.0	14.0	14.0	14.0	56.5	144	156	153	160	163
MAX	188	14	14	14	14	14	151	150	173	164	164	165
MIN	10	14	14	14	14	14	14	137	139	144	141	161
AC-FT	4410	833	861	861	778	861	3360	8830	9270	9420	9860	9690
CAL YR 2002	TOTAL 38315	MEAN 105	MAX 211	MIN 10	AC-FT 76000							
WTR YR 2003	TOTAL 29766	MEAN 81.6	MAX 188	MIN 10	AC-FT 59040							





BOISE RIVER BASIN

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°20'30", long 115°28'40", in NW¼ sec.14, T.1 S., R.8 E., Elmore County, Anderson Ranch Dam quad., Hydrologic Unit 17050113, Boise National Forest, on right bank 600 ft upstream from Dixie Creek, 1.8 mi downstream from Anderson Ranch, 2.2 mi northwest of Bennett, and at mile 41.5.

DRAINAGE AREA.--982 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1943 to current year (includes flow of Dixie Creek prior to October 1946).

GAGE.--Water-stage recorder. Datum of gage is 3,830.0 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow regulated by Anderson Ranch Reservoir, 1.8 mi upstream (see sta 13190000) beginning Dec. 15, 1945. Flow of Little Camas Creek is stored in Little Camas Reservoir, capacity, 22,300 acre-ft, no spill most years, and diverted out of basin through Little Camas Canal for irrigation of about 5,000 acres (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,850 ft<sup>3</sup>/s May 25, 1956, gage height, 10.56 ft; minimum, 0.10 ft<sup>3</sup>/s Nov. 13, 1959; minimum gage height, 0.99 ft, Feb. 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft<sup>3</sup>/s July 6, gage height, 4.79; minimum daily, 290 ft<sup>3</sup>/s Nov. 3, 4.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354	295	306	307	307	304	608	621	612	610	1200	1200
2	350	294	306	305	306	304	620	617	616	610	1200	1000
3	352	290	306	304	306	304	621	617	617	648	1210	802
4	354	290	305	304	308	302	621	616	617	834	1200	605
5	352	296	307	304	308	304	620	611	620	1020	1200	602
6	353	301	307	304	310	304	620	610	622	1240	1200	598
7	354	297	308	304	315	303	616	610	601	1200	1190	598
8	347	301	308	304	314	304	615	612	601	1200	1190	600
9	344	302	306	304	313	303	614	610	617	1200	1200	599
10	344	303	305	304	311	305	615	612	646	1210	1200	603
11	346	304	307	304	309	305	613	611	626	1210	1200	603
12	347	304	306	305	306	299	615	610	634	1200	1200	599
13	345	301	306	305	305	302	616	612	622	1200	1200	595
14	344	301	307	306	305	302	618	611	635	1200	1200	593
15	344	304	309	305	304	304	619	613	619	1190	1200	593
16	342	304	309	306	305	302	619	614	612	1200	1200	592
17	352	304	311	305	306	301	622	614	610	1190	1210	593
18	350	302	312	306	304	304	621	613	604	1190	1210	602
19	353	304	311	305	301	304	620	611	614	1200	1200	602
20	355	302	311	305	301	304	618	604	626	1190	1210	603
21	334	301	312	304	304	304	616	607	607	1200	1190	599
22	308	300	309	303	303	304	617	612	597	1200	1200	596
23	312	300	308	302	303	307	618	614	604	1200	1210	598
24	305	302	308	301	304	310	620	613	609	1200	1210	574
25	302	304	308	300	304	312	621	611	605	1210	1200	599
26	303	304	309	300	306	314	624	613	599	1210	1200	596
27	303	304	301	304	304	306	624	606	599	1200	1200	596
28	299	304	301	304	305	308	624	609	604	1190	1210	597
29	309	305	306	304	---	306	625	610	604	1200	1210	596
30	306	306	307	306	---	306	625	615	609	1200	1200	596
31	299	---	307	304	---	304	---	613	---	1200	1200	---
TOTAL	10362	9029	9529	9428	8577	9445	18565	18972	18408	34952	37250	19129
MEAN	334	301	307	304	306	305	619	612	614	1127	1202	638
MAX	355	306	312	307	315	314	625	621	646	1240	1210	1200
MIN	299	290	301	300	301	299	608	604	597	610	1190	574
AC-FT	20550	17910	18900	18700	17010	18730	36820	37630	36510	69330	73890	37940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2003, BY WATER YEAR (WY)

MEAN	386	402	511	541	593	678	1100	2068	2297	1502	1051	613
MAX	1183	1504	1556	1531	3002	2996	3795	4820	5171	2546	1862	1741
(WY)	1953	1984	1984	1984	1997	1997	1946	1943	1983	1950	1948	1952
MIN	1.46	1.32	1.26	1.30	1.57	3.19	5.84	3.37	572	628	62.6	41.7
(WY)	1949	1949	1950	1949	1950	1950	1962	1962	1955	1944	1950	1949

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1943 - 2003
ANNUAL TOTAL	219298	203646	
ANNUAL MEAN	601	558	974
HIGHEST ANNUAL MEAN			1735
LOWEST ANNUAL MEAN			411
HIGHEST DAILY MEAN	1470	1240	9770
LOWEST DAILY MEAN	290	290	0.70
ANNUAL SEVEN-DAY MINIMUM	295	295	0.76
ANNUAL RUNOFF (AC-FT)	435000	403900	705700
10 PERCENT EXCEEDS	1440	1200	2150
50 PERCENT EXCEEDS	332	574	603
90 PERCENT EXCEEDS	299	303	189



BOISE RIVER BASIN

13201500 LUCKY PEAK LAKE NEAR BOISE, ID

LOCATION.--Lat 43°31'31", long 116°03'15", in SW¼NW¼ sec.12, T.2 N., R.3 E., Ada County, Lucky Peak quad., Hydrologic Unit 17050112, at outlet control tower at Lucky Peak Dam on Boise River, 2 mi upstream from diversion dam for New York Canal, 7 mi downstream from Mores Creek, 9 mi southeast of Boise, and at mile 63.8.

DRAINAGE AREA.--2,680 mi<sup>2</sup>, approximately.

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

GAGE.--Water-stage recorder. Datum of gage is sea level, (levels by U.S. Corps of Engineers). Prior to May 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Station equipment includes satellite telemetry. Reservoir is formed by earthfill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft between elevations 2,827.0 ft, sill of outlet gates, and 3,060.0 ft, spillway crest. Minimum proposed operating level, 2,905.0 ft, 28,770 acre-ft, but all storage can be released. Water is stored for flood control, irrigation of lands in Boise Valley, and hydro-electric power.

COOPERATION.--Gage-height record and capacity table provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 305,130 acre-ft June 25, 1955, elevation, 3,059.32 ft; minimum since near-full capacity was attained on June 25, 1955, 28,630 acre-ft Dec. 21, 1961, elevation, 2,904.83 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 293,700 acre-ft July 26, elevation, 3,055.22 ft; minimum contents, 28,700 acre-ft Oct. 25, 26, elevation, 2,904.89 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

2,900.0	24,900	2,980.0	125,100
2,920.0	42,200	3,000.0	162,800
2,940.0	64,600	3,020.0	205,600
2,960.0	92,400	3,040.0	253,600
		3,060.0	307,000

RESERVOIR STORAGE, in (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63400	30500	106400	110200	118300	107100	142700	214800	278100	292000	293100	221700
2	59300	30500	107600	110300	119000	106600	145200	218300	281400	292500	293100	218300
3	55400	30400	108700	110400	119200	106500	147800	222000	284700	292900	292900	214600
4	51400	30400	109800	110600	119200	106400	150200	225800	287700	293000	292800	210500
5	47400	31700	110200	110700	118900	106400	152500	229800	290400	293000	292400	205700
6	43400	34800	109800	110700	118500	106200	154700	233800	291900	292800	292000	200400
7	41100	40400	109400	110700	118000	107000	155700	237900	291900	292700	291500	195300
8	40200	45000	109100	110600	117500	108200	157000	241800	291800	292400	290500	190500
9	39300	49800	109000	110600	117000	108800	158200	245700	291700	292400	288300	186400
10	38200	54300	109000	110600	116500	109600	159100	249500	291300	292400	285400	182100
11	37200	58500	109000	110700	115900	110500	159900	253300	291700	292300	284300	177900
12	36200	62400	109000	110700	115300	111400	161000	257200	292800	292200	283400	173600
13	35200	66100	109100	110800	114800	112300	162100	261500	293300	291900	282300	169300
14	34200	69600	109200	111000	114400	113500	166800	265800	293300	291900	280800	164900
15	33500	73000	109400	111200	113900	114700	170000	267500	293300	292600	278900	160900
16	33000	76200	109300	111300	113500	116300	173900	267900	293300	293100	276700	156500
17	32600	79200	109300	111400	113200	117700	177300	268100	293100	293400	274200	152400
18	32100	82000	109300	111500	112700	119200	180600	268400	292700	293500	271400	148300
19	31600	84700	109300	111600	112200	120500	183800	268500	292500	293500	268200	144200
20	31100	87200	109300	111700	111800	121700	186900	268700	292300	293300	264800	e140100
21	30600	89600	109300	111800	111300	122400	189900	268700	292200	293400	261200	e136000
22	30100	91800	109300	112000	110900	123000	193100	268600	292100	293300	257400	132000
23	29600	93900	109300	112100	110400	124400	196100	268400	292000	293100	253800	128100
24	29100	95900	109300	112300	109800	125600	198600	268300	291900	293200	249900	124200
25	28700	97700	109300	112500	109300	127200	200800	268600	291700	293400	246100	120300
26	29200	99400	109300	112800	108800	129500	202800	269000	291700	293300	242200	116500
27	29600	101000	109300	113500	108200	132200	204700	268900	291700	293100	238500	112600
28	29800	102500	109400	114400	107700	134400	206300	268400	291700	292700	235100	108800
29	30000	103900	109600	115000	---	136400	208000	268600	291500	292800	231700	104900
30	30300	105200	109900	115800	---	138400	211000	271100	291700	293000	228400	101100
31	30500	---	110000	117200	---	140100	---	274600	---	293100	225100	---
MAX	63400	105200	110200	117200	119200	140100	211000	274600	293300	293500	293100	221700
MIN	28700	30400	106400	110200	107700	106200	142700	214800	278100	291900	225100	101100
†	2907.10	2968.18	2971.13	2975.46	2969.73	2988.27	3022.37	3048.11	3054.48	3055.00	3028.40	2965.61
‡	-36000	74700	4800	7200	-9500	32400	70900	63600	17100	1400	-68000	-124000

CAL YR 2002 ‡ 9500  
WTR YR 2003 ‡ 34600

† Elevation, in feet, at end of month.  
‡ Change in contents, in acre-feet.  
e Estimated

BOISE RIVER BASIN  
13202000 BOISE RIVER NEAR BOISE, ID

LOCATION.--Lat 43°31'40", long 116°03'31", in NE<sup>1</sup>/<sub>4</sub> sec.11, T.2 N., R.3 E., Ada County, Lucky Peak quad., Hydrologic Unit 17050112, at gate-control house at outlet works of Lucky Peak Lake, 1.8 mi upstream from diversion dam for New York Canal, 7.5 mi downstream from mouth of Mores Creek, 9 mi southeast of Boise, and at mile 63.6.

DRAINAGE AREA.--2,680 mi<sup>2</sup>, approximately. Mean elevation, 5,910 ft.

PERIOD OF RECORD.--January 1895 to September 1916 (no winter records 1904-05, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to current year. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

REVISED RECORDS.--WSP 1347: 1895-1901, 1904.

GAGE.--None. See WDR ID-87-1 for history of changes prior to October 1, 1987.

REMARKS.--Flow regulated by Lucky Peak Lake, Arrowrock Reservoir, and Anderson Ranch Reservoir. Diversions above station for irrigation of about 2,300 acres in the basin, and about 5,000 acres outside the basin near Mountain Home (1966 determination).

COOPERATION.--Discharge record provided by Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed (1895-1916), prior to regulation, 35,500 ft<sup>3</sup>/s June 14, 1896; minimum observed, 432 ft<sup>3</sup>/s Nov. 14, 1915.

Maximum discharge since construction of Lucky Peak Dam in 1955, 13,200 ft<sup>3</sup>/s June 13-15, 1983; no flow on several days in 1954, 1955, 1957-59, 1961, 1969, 1974, 1978, 1980, 1982, 1984-86, 1989 when gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,670 ft<sup>3</sup>/s June 11; minimum daily, 8.4 ft<sup>3</sup>/s Mar. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	241	241	240	374	640	1370	3650	4120	4530	4330	3570
2	2050	241	242	240	440	641	1380	3660	4130	4530	4330	3560
3	2050	241	241	241	575	640	1380	3660	4130	4520	4330	3560
4	2050	241	242	241	642	642	1380	3660	4130	4530	4340	3550
5	2050	242	242	241	642	640	1430	3640	4130	4530	4340	3550
6	2050	241	242	241	640	640	1450	3650	4130	4520	4310	3550
7	1080	240	243	242	642	222	1690	3640	4130	4530	4280	3550
8	526	241	243	242	641	8.4	1870	3650	4130	4510	4270	3550
9	525	241	241	241	641	239	1920	3610	4160	4470	4250	3510
10	524	241	245	242	642	243	1990	3580	4520	4460	4250	3490
11	525	240	241	243	640	240	2090	3570	4670	4430	4260	3380
12	524	238	241	242	639	241	2130	3540	4510	4420	4250	3330
13	524	238	240	241	640	241	2130	3510	4430	4420	4250	3330
14	526	241	241	242	640	240	2390	3530	4420	4430	4250	3330
15	376	241	241	242	641	240	2580	3540	4420	4420	4250	3290
16	301	244	242	242	639	240	2620	3600	4430	4430	4250	3210
17	300	249	242	241	639	241	2760	3620	4460	4420	4250	3180
18	301	249	242	242	641	240	2830	3620	4510	4430	4250	3180
19	300	243	242	241	641	240	2830	3620	4520	4430	4250	3160
20	300	241	241	240	642	240	2830	3630	4520	4420	4250	3150
21	301	241	241	242	638	507	2840	3640	4530	4410	4240	3150
22	301	241	241	242	641	639	2910	3670	4520	4400	4220	3100
23	300	240	242	240	640	639	3070	3750	4530	4410	4210	3050
24	300	238	241	241	643	641	3270	3780	4530	4400	4200	3030
25	300	241	241	242	640	743	3510	3770	4520	4400	4120	3030
26	260	241	241	242	640	888	3600	3780	4530	4400	4010	3020
27	239	240	241	242	641	1140	3600	3890	4520	4400	3880	3030
28	240	241	241	241	639	1240	3610	4030	4530	4360	3730	3020
29	241	242	241	241	---	1240	3620	4100	4520	4340	3620	3020
30	241	241	241	241	---	1240	3640	4130	4520	4320	3580	3010
31	243	---	239	242	---	1240	---	4120	---	4330	3570	---
TOTAL	21898	7240	7485	7483	17403	17115.4	74720	114840	131850	137550	128920	98440
MEAN	706	241	241	241	622	552	2491	3705	4395	4437	4159	3281
MAX	2050	249	245	243	643	1240	3640	4130	4670	4530	4340	3570
MIN	239	238	239	240	374	8.4	1370	3510	4120	4320	3570	3010
AC-FT	43430	14360	14850	14840	34520	33950	148200	227800	261500	272800	255700	195300



BOISE RIVER BASIN

13202000 BOISE RIVER NEAR BOISE, ID--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1916, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	969	1151	1111	1238	1299	2951	6377	8150	7913	2992	1185	970
MAX	1349	3343	2309	2590	1979	9144	11220	13360	24400	6218	2655	2094
(WY)	1900	1910	1899	1899	1909	1910	1907	1904	1896	1896	1916	1916
MIN	683	509	539	660	925	1388	2823	2023	3186	1272	643	578
(WY)	1907	1916	1916	1898	1913	1915	1915	1915	1915	1905	1905	1905

SUMMARY STATISTICS	<sup>a</sup> WATER YEARS 1895 - 1916	
ANNUAL MEAN	3038	
HIGHEST ANNUAL MEAN	4510	1896
LOWEST ANNUAL MEAN	1627	1915
HIGHEST DAILY MEAN	35500	Jun 14 1896
LOWEST DAILY MEAN	432	Nov 14 1915
ANNUAL SEVEN-DAY MINIMUM	482	Nov 10 1915
ANNUAL RUNOFF (AC-FT)	2201000	
10 PERCENT EXCEEDS	8150	
50 PERCENT EXCEEDS	1340	
90 PERCENT EXCEEDS	812	

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	946	207	341	658	1474	2297	4209	6094	5517	4588	4014	2960
MAX	2246	1448	1756	6008	7009	7565	8940	10830	10540	6034	4752	4469
(WY)	1985	1987	1996	1997	1997	1997	1997	1965	1983	1982	1963	1984
MIN	63.0	0.000	0.000	0.000	0.000	90.0	622	2797	3147	2795	1056	403
(WY)	1962	1955	1955	1955	1961	1977	1955	1991	1990	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		<sup>b</sup> WATER YEARS 1955 - 2003	
ANNUAL TOTAL	777475		764944.4			
ANNUAL MEAN	2130		2096		2780	
HIGHEST ANNUAL MEAN					4914	1997
LOWEST ANNUAL MEAN					1137	1992
HIGHEST DAILY MEAN	4590	May 7	4670	Jun 11	13200	Jun 13 1983
LOWEST DAILY MEAN	152	Jan 21	8.4	Mar 8	0.00	Oct 17 1954
ANNUAL SEVEN-DAY MINIMUM	153	Jan 19	205	Mar 7	0.00	Oct 17 1954
ANNUAL RUNOFF (AC-FT)	1542000		1517000		2014000	
10 PERCENT EXCEEDS	4520		4420		6210	
50 PERCENT EXCEEDS	1430		1690		2670	
90 PERCENT EXCEEDS	154		241		100	

a Unregulated, prior to construction of Arrowrock Dam.  
 b Regulated, unadjusted (since construction of Lucky Peak Dam).

BOISE RIVER BASIN

13203510 BOISE RIVER BELOW DIVERSION DAM NEAR BOISE, ID

LOCATION.--Lat 43°32'23", long 116°05'37", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.4, T.2 N., R.3 E., Ada County, Lucky Peak quad., Hydrologic Unit 17050114, on right bank, 700 ft downstream from Diversion Dam, and 7.0 mi southeast of Boise.

DRAINAGE AREA.--2,680 mi<sup>2</sup>, approximately. Mean elevation, 5,910 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1990 to September 1991, October 1992 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 1997, February to September 1999 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 18.4 °C Sep. 16, 19-20, 1999.

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

Date	Time	Instan- taneous dis- charge, cfs (00061)	Specif. conduc- tance, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	Fecal coli- form, M-FC col/ 100 mL (31625)	E coli, Coli- lert Quantry water, MPN/ 100 mL (50468)	Total coli- form, Colert Quantry MPN/ 100 mL (50569)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
OCT													
15...	1220	300	87	7.6	16.0	13.7	11.4	122	S3	<1	160	<.04	.23
DEC													
17...	1014	247	93	7.1	5.0	5.4	12.5	112	<1	<1	5	<.04	.12
FEB													
18...	1235	242	93	7.5	7.0	3.5	12.6	105	<1	<1	4	<.04	.13
APR													
15...	1228	1200	92	7.9	5.5	6.1	13.1	117	2	<1	2	<.04	.15
MAY													
13...	1048	1570	81	7.8	12.0	7.7	11.7	108	<1	<1	9	<.04	.12
JUN													
17...	1030	2110	69	7.6	25.0	11.1	11.8	119	<1	4	53	<.04	.10
JUL													
15...	1032	2030	51	7.4	25.0	13.3	10.3	109	1	1	1200	<.04	E.10
AUG													
12...	1034	1960	67	7.5	21.5	17.0	10.0	115	1	1	72	<.04	.13
SEP													
16...	1002	1360	81	7.4	16.0	17.2	9.3	109	1	2	120	<.04	.15

Date	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT					
15...	.10	.02	.07	--	--
DEC					
17...	.22	E.01	E.03	6	4.0
FEB					
18...	.09	<.02	E.02	2	1.3
APR					
15...	E.05	<.02	E.03	10	32
MAY					
13...	.08	<.02	<.04	3	13
JUN					
17...	E.06	<.02	<.04	3	17
JUL					
15...	.09	<.02	<.04	4	22
AUG					
12...	E.03	<.02	<.04	2	11
SEP					
16...	.11	E.01	E.02	10	37

< Less than  
E Estimated value  
S Most probable value

BOISE RIVER BASIN

13204640 COTTONWOOD CREEK BELOW FIVEMILE CREEK NEAR BOISE, ID

LOCATION.--Lat 43°37'43", long 116°06'39", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.4, T.4 N., R.3 E., Ada County, Robie Creek Quad., Hydrologic Unit 17050114, on left bank 500 ft downstream from Fivemile Creek, and 5.0 mi east of Boise.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,780 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges and discharges below 0.2 ft<sup>3</sup>/s, which are fair. Station equipment includes satellite telemetry.

COOPERATION.--City of Boise.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14 ft<sup>3</sup>/s Mar. 9, 2002, gage height, 8.18 ft; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6.8 ft<sup>3</sup>/s Mar. 28; no flow for long periods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e0.00	0.59	e1.4	3.5	1.7	5.0	2.4	1.4	0.30	0.00	0.00
2	0.00	e0.02	0.60	e1.2	3.3	1.6	4.8	2.1	1.3	0.28	0.00	0.00
3	0.00	0.09	0.60	e1.3	3.1	1.6	4.5	2.5	1.2	0.24	0.00	0.00
4	0.00	0.11	0.58	e1.4	2.9	1.6	4.2	3.9	1.1	0.19	0.00	0.00
5	0.00	0.11	0.60	e1.2	2.6	1.5	3.9	4.4	1.0	0.14	0.00	0.00
6	0.00	0.11	0.61	e1.0	2.4	1.4	3.9	4.6	0.99	0.11	0.00	0.00
7	0.00	0.10	0.61	e0.9	2.1	1.6	3.6	4.7	0.92	0.09	0.00	0.00
8	0.00	0.17	0.60	e0.9	2.0	1.5	3.6	4.7	0.87	0.08	0.00	0.00
9	0.00	0.42	0.61	e1.0	1.8	1.5	3.5	4.7	0.82	0.05	0.00	0.00
10	0.00	0.59	0.63	e1.0	1.7	1.7	3.4	4.5	0.80	0.04	0.00	0.00
11	0.00	0.49	0.65	e0.9	1.6	1.6	3.4	4.6	0.78	0.04	0.00	0.00
12	0.00	0.48	0.70	e0.9	1.5	1.6	3.3	4.7	0.75	0.03	0.00	0.00
13	0.00	0.48	0.72	e1.2	1.8	1.6	3.4	4.3	0.71	0.03	0.00	0.00
14	0.00	0.50	0.94	e1.6	2.1	1.6	3.4	4.0	0.67	0.02	0.00	0.00
15	0.00	0.51	0.75	1.6	1.8	2.0	3.3	3.9	0.65	0.01	0.00	0.00
16	0.00	0.53	0.79	1.4	2.4	2.4	3.1	3.8	0.61	0.00	0.00	0.00
17	0.00	0.54	0.85	1.3	2.4	2.3	3.0	e3.7	0.58	0.00	0.00	0.00
18	0.00	0.54	0.74	1.2	2.5	2.2	3.0	e3.6	0.53	0.00	0.00	0.00
19	0.00	0.54	0.74	1.2	2.5	2.2	2.9	e3.5	0.55	0.00	0.00	0.00
20	0.00	0.55	0.75	1.1	2.4	2.2	2.7	e3.4	0.63	0.00	0.00	0.00
21	0.00	0.56	0.77	1.1	2.4	2.1	2.6	3.2	0.62	0.00	0.00	0.00
22	0.00	0.57	0.78	1.1	2.4	2.3	2.6	e2.9	0.64	0.00	0.00	0.00
23	0.00	0.57	0.76	1.2	2.3	2.4	2.5	e2.5	0.61	0.00	0.00	0.00
24	0.00	0.57	0.74	1.1	2.1	2.1	2.7	2.4	0.58	0.00	0.00	0.00
25	0.00	0.57	0.73	1.3	2.0	2.6	2.9	2.4	0.55	0.00	0.00	0.00
26	0.00	0.57	0.81	1.3	2.0	4.8	2.8	2.2	0.51	0.26	0.00	0.00
27	0.00	0.57	1.1	2.6	1.9	6.5	2.6	2.0	0.47	0.05	0.00	0.00
28	0.00	0.57	e1.6	3.0	1.8	6.8	2.5	1.7	0.43	0.00	0.00	0.00
29	0.00	0.58	e1.4	2.7	---	6.1	2.4	1.6	0.37	0.00	0.00	0.00
30	0.00	0.58	e1.3	3.1	---	5.7	2.5	2.1	0.31	0.00	0.00	0.00
31	e0.00	---	e1.8	3.4	---	5.2	---	1.5	---	0.00	0.00	---
TOTAL	0.00	12.59	25.45	45.6	63.3	82.0	98.0	102.5	21.95	1.96	0.00	0.00
MEAN	0.000	0.42	0.82	1.47	2.26	2.65	3.27	3.31	0.73	0.063	0.000	0.000
MAX	0.00	0.59	1.8	3.4	3.5	6.8	5.0	4.7	1.4	0.30	0.00	0.00
MIN	0.00	0.00	0.58	0.90	1.5	1.4	2.4	1.5	0.31	0.00	0.00	0.00
AC-FT	0.00	25	50	90	126	163	194	203	44	3.9	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

	2001	2001	2003	2002	2003	2002	2002	2003	2003	2001	2001	2001
MEAN	0.13	0.49	0.79	1.32	2.00	4.74	4.85	2.36	0.60	0.039	0.000	0.000
MAX	0.40	0.69	0.82	1.52	2.26	6.65	8.01	3.31	0.73	0.063	0.000	0.000
(WY)	2001	2001	2003	2002	2003	2002	2002	2003	2003	2003	2001	2001
MIN	0.000	0.36	0.74	0.97	1.65	2.65	3.27	1.09	0.35	0.008	0.000	0.000
(WY)	2002	2002	2002	2001	2001	2003	2003	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 2001 - 2003
ANNUAL TOTAL	696.36	453.35	
ANNUAL MEAN	1.91	1.24	1.44
HIGHEST ANNUAL MEAN			1.90
LOWEST ANNUAL MEAN			1.18
HIGHEST DAILY MEAN	13	Mar 27	6.8
LOWEST DAILY MEAN	0.00	Jul 12	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 12	0.00
ANNUAL RUNOFF (AC-FT)	1380	899	1040
10 PERCENT EXCEEDS	5.5	3.4	3.9
50 PERCENT EXCEEDS	0.65	0.71	0.68
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

## BOISE RIVER BASIN

13205995 DIVERSIONS FROM BOISE RIVER BETWEEN GAGING STATIONS  
NEAR BOISE AND AT GLENWOOD BRIDGE, ID

Between "near Boise" and "at Glenwood Bridge" gaging stations (published as "between Dowling Ranch and at Boise gaging stations" prior to 1955 water year, and as "between near Boise and at Boise gaging stations", 1955-82), ten canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-67, combined daily diversions for water years 1968-75, and daily flow of New York Canal, February 1939 to October 1948, are published in reports of Geological Survey. Records of daily diversion for each canal beginning in 1916 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, there was no record of October to March diversions, except for New York Canal.

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly, and discharge measurements are made weekly. Records provided by watermaster for Boise River.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	---	---	---	200	357	1170	2740	3200	3330	3240	2820
2	1510	---	---	---	200	355	1150	2750	3210	3330	3240	2810
3	1520	---	---	---	400	393	1140	2750	3220	3330	3240	2810
4	1520	---	---	---	400	423	1140	2750	3220	3330	3220	2810
5	1520	---	---	---	400	425	1220	2750	3230	3340	3230	2810
6	1520	---	---	---	400	425	1220	2750	3230	3340	3220	2820
7	869	---	---	---	400	200	1250	2750	3230	3340	3150	2820
8	80	---	---	---	400	e0.00	1270	2750	3240	3340	3060	2810
9	78	---	---	---	400	e0.00	1280	2720	3270	3300	3060	2800
10	75	---	---	---	400	e0.00	1320	2690	3280	3300	3060	2790
11	73	---	---	---	400	e0.00	1370	2690	3280	3290	3060	2710
12	70	---	---	---	344	e0.00	1380	2690	3290	3290	3060	2680
13	70	---	---	---	359	e0.00	1390	2680	3300	3290	3060	2680
14	55	---	---	---	360	e0.00	1590	2690	3300	3300	3060	2680
15	18	---	---	---	359	e0.00	1830	2710	3310	3290	3050	2650
16	7.9	---	---	---	358	e0.00	1900	2720	3320	3300	3050	2590
17	7.9	---	---	---	358	e0.00	2000	2740	3320	3300	3050	2520
18	7.9	---	---	---	358	e0.00	2060	2740	3320	3300	3050	2510
19	7.9	---	---	---	358	e0.00	2070	2750	3320	3300	3050	2510
20	7.9	---	---	---	359	e0.00	2080	2760	3320	3300	3050	2500
21	7.9	---	---	---	358	400	2100	2770	3320	3290	3050	2500
22	5.0	---	---	---	358	400	2120	2770	3320	3280	3050	2440
23	5.0	---	---	---	357	400	2200	2850	3330	3280	3050	2400
24	5.0	---	---	---	357	400	2360	2890	3330	3280	3050	2390
25	5.0	---	---	---	356	534	2590	2900	3330	3270	3040	2390
26	5.0	---	---	---	356	654	2680	2900	3330	3270	3030	2390
27	5.0	---	---	---	356	901	2700	2980	3330	3270	3030	2390
28	5.0	---	---	---	356	1010	2720	3110	3330	3240	2970	2390
29	5.0	---	---	---	---	1010	2740	3170	3330	3240	2860	2390
30	5.0	---	---	---	---	1010	2740	3180	3330	3240	2820	2370
31	0.00	---	---	---	---	1010	---	3190	---	3240	2820	---
TOTAL	10540.40	---	---	---	10067	10307.00	54780	87280	98690	102140	95030	78180
MEAN	340	---	---	---	360	332	1826	2815	3290	3295	3065	2606
MAX	1520	---	---	---	400	1010	2740	3190	3330	3340	3240	2820
MIN	0.00	---	---	---	200	0.00	1140	2680	3200	3240	2820	2370
AC-FT	20910	---	---	---	19970	20440	108700	173100	195800	202600	188500	155100

e Estimated

BOISE RIVER BASIN

13206000 BOISE RIVER AT GLENWOOD BRIDGE NEAR BOISE, ID

LOCATION.--Lat 43°39'37", long 116°16'41", in SW¼NE¼NE¼ sec.25, T.4 N., R.1 E., Ada County, Eagle quad., Hydrologic Unit 17050114, on left bank 175 ft upstream from Glenwood Bridge, 4.4 mi northwest of Boise, and at mile 47.5.

DRAINAGE AREA.--2,800 mi<sup>2</sup>, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to September 1940 (published as "at Strawberry Glen Bridge near Boise"), March 1982 to current year. February 1940 to October 1982, station 13205500 Boise River at Boise at site 5.3 miles upstream, not equivalent due to irrigation diversions between sites.

GAGE.--Water-stage recorder. Datum of gage is 2,600.00 ft above NGVD of 1929. April 1938 to September 1940, 0.30 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow regulated by Anderson Ranch Reservoir, Arrowrock Reservoir and Lucky Peak Lake (see sta 13201500). The New York, Ridenbaugh and eight small canals (see sta 13205995) divert between station "near Boise" (see sta 13202000) and this station. Diversion above station for about 5,000 acres are outside the basin near Mountain Home.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, prior to completion of Lucky Peak Dam in 1955, 13,000 ft<sup>3</sup>/s May 2, 1938; minimum observed, 19 ft<sup>3</sup>/s Dec. 3, 1939.

Maximum discharge since regulation, 9,840 ft<sup>3</sup>/s June 13, 1983, gage height, 11.54 ft; minimum, 42 ft<sup>3</sup>/s Oct. 26, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943 reached a discharge of about 21,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,480 ft<sup>3</sup>/s June 11; minimum daily, 214 ft<sup>3</sup>/s Mar. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	593	243	244	224	282	276	229	937	968	1310	1260	868
2	582	242	245	221	291	276	222	934	967	1320	1270	862
3	584	244	245	223	266	263	237	941	961	1320	1270	854
4	585	243	246	225	253	233	242	1000	957	1320	1280	852
5	585	242	245	227	267	231	234	967	954	1320	1300	848
6	585	242	244	230	267	231	244	946	952	1320	1300	842
7	649	242	244	232	268	306	357	930	946	1320	1300	854
8	628	260	243	235	268	335	589	934	959	1310	1270	854
9	584	263	243	238	267	214	662	936	954	1300	1260	848
10	537	266	244	241	272	275	660	935	1200	1300	1270	808
11	504	252	245	244	278	264	716	954	1480	1290	1280	781
12	510	249	247	247	277	261	749	943	1370	1280	1280	738
13	516	253	244	253	288	261	734	894	1240	1280	1290	734
14	525	250	251	263	298	261	769	897	1240	1280	1290	735
15	473	250	241	261	285	276	808	893	1240	1280	1300	730
16	286	252	244	259	295	270	799	908	1240	1280	1290	725
17	275	254	245	258	288	266	815	949	1250	1280	1300	727
18	275	258	225	257	292	265	859	949	1300	1290	1300	735
19	273	255	217	257	288	264	840	956	1320	1280	1310	728
20	273	250	216	258	287	261	830	951	1340	1250	1300	710
21	273	250	219	257	286	274	786	943	1330	1300	1310	712
22	271	249	220	264	289	279	794	946	1340	1280	1300	718
23	287	249	216	262	287	224	866	946	1330	1280	1300	699
24	278	249	216	257	284	267	914	940	1330	1280	1250	709
25	279	248	215	265	280	231	901	936	1330	1290	1210	680
26	266	247	219	258	279	267	905	935	1330	1300	1100	673
27	238	247	221	321	279	252	906	944	1320	1310	1010	674
28	242	245	217	275	276	247	912	948	1320	1300	890	679
29	244	244	233	267	---	248	891	951	1330	1260	866	681
30	242	245	255	284	---	247	929	987	1320	1260	865	674
31	244	---	257	274	---	246	---	980	---	1250	866	---
TOTAL	12686	7483	7306	7837	7837	8071	20399	29210	36118	40040	37687	22732
MEAN	409	249	236	253	280	260	680	942	1204	1292	1216	758
MAX	649	266	257	321	298	335	929	1000	1480	1320	1310	868
MIN	238	242	215	221	253	214	222	893	946	1250	865	673
AC-FT	25160	14840	14490	15540	15540	16010	40460	57940	71640	79420	74750	45090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)												
MEAN	443	340	488	895	1144	1885	2568	2736	2172	1250	918	656
MAX	1559	1516	1685	5903	7059	7037	6850	6780	6749	2689	1443	1893
(WY)	1985	1985	1984	1997	1997	1997	1997	1984	1983	1982	1997	1984
MIN	150	106	106	107	108	111	460	655	620	554	500	266
(WY)	1993	1993	1993	1993	1993	1992	2001	1990	1987	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1982 - 2003
ANNUAL TOTAL	226398	237406	
ANNUAL MEAN	620	650	1253
HIGHEST ANNUAL MEAN			3381
LOWEST ANNUAL MEAN			358
HIGHEST DAILY MEAN	1340	May 7	1480
LOWEST DAILY MEAN	159	Feb 28	214
ANNUAL SEVEN-DAY MINIMUM	172	Apr 1	217
ANNUAL RUNOFF (AC-FT)	449100	470900	907900
10 PERCENT EXCEEDS	1270	1300	3680
50 PERCENT EXCEEDS	537	584	674
90 PERCENT EXCEEDS	184	242	170

## BOISE RIVER BASIN

13206000 BOISE RIVER AT GLENWOOD BRIDGE NEAR BOISE, ID--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-73, 1988, 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July to September 1997, March to June 1998, October 1998 to September 1999, April to September 2001, November 2001 to July 2002 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0 °C Sept. 2-3, 2001; minimum, 0.0 °C Dec. 21-22, 1998.

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

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC col/100 mL (31625)	E coli, Coli-Quantry water, MPN/100 mL (50468)	Total coliform, Colert Quantry MPN/100 mL (50569)	Ammonia water, fltrd, as N mg/L (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	
OCT	15...	1555	419	127	8.7	18.0	13.4	12.9	135	58	26	1200	<.04	.18
DEC	17...	1340	242	144	7.9	7.0	6.7	13.5	124	98	53	920	<.04	.21
FEB	18...	1600	298	152	8.4	9.5	6.6	13.4	120	40	12	920	<.04	.37
APR	15...	1636	818	114	8.9	15.0	10.2	13.4	132	67	19	1000	.07	.37
MAY	13...	1433	882	102	9.1	19.5	11.2	13.5	134	9	6	1100	<.04	.32
JUN	17...	1425	1270	85	9.0	32.0	14.6	13.1	143	23	25	2000	<.04	.23
JUL	15...	1432	1290	68	8.6	34.0	16.6	10.9	123	60	11	1900	<.04	.16
AUG	12...	1415	1300	85	8.8	29.0	19.0	11.6	137	114	18	2400	<.04	.20
SEP	16...	1400	700	110	8.2	19.0	17.9	10.3	121	110	19	2000	<.04	.20

Date	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT					
15...	.62	.17	.18	6	6.8
DEC					
17...	.52	.13	.15	4	2.6
FEB					
18...	.54	.24	.31	5	4.0
APR					
15...	.23	.05	.08	11	24
MAY					
13...	.26	.10	.12	3	7.1
JUN					
17...	.16	.07	.08	6	21
JUL					
15...	.27	.10	.12	5	17
AUG					
12...	.22	.09	.11	3	11
SEP					
16...	.46	.15	.17	8	15

&lt; Less than

BOISE RIVER BASIN

13206305 BOISE RIVER SOUTH CHANNEL AT EAGLE, ID

LOCATION.--Lat 43°40'31", long 116°21'13", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.20, T.4 N., R.1 W., Ada County, Eagle quad., Hydrologic Unit 17050114, on right bank at State Highway 55, 10 ft upstream from bridge, 1.5 mi south of Eagle, and at mile 42.8.

PERIOD OF RECORD.--November 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,560 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 discharge, 1,470 ft<sup>3</sup>/s Apr. 19, 2000, gage height, 4.73 ft; minimum , 75 ft<sup>3</sup>/s Mar. 9, 2003, gage height, 1.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 857 ft<sup>3</sup>/s Aug. 23; minimum, 75 ft<sup>3</sup>/s Mar. 9, gage height, 1.56 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	144	133	114	121	121	124	549	524	783	737	495
2	363	143	134	111	125	120	118	552	527	781	741	498
3	359	143	133	112	117	116	127	558	523	777	744	494
4	346	143	133	113	113	101	128	591	525	773	744	492
5	347	144	133	113	118	97	126	578	523	781	746	506
6	347	143	131	111	118	97	130	565	521	784	788	572
7	380	142	128	111	117	115	177	551	523	793	813	612
8	373	157	128	112	119	133	326	549	526	783	800	620
9	351	159	127	111	118	91	393	552	527	773	792	611
10	324	165	115	112	118	112	382	549	633	773	802	583
11	301	152	98	113	121	109	408	563	779	767	812	565
12	299	149	96	113	120	107	438	565	774	757	816	540
13	304	150	96	114	124	107	430	536	751	757	813	546
14	307	150	101	115	128	107	451	541	750	772	816	522
15	287	150	97	114	123	112	477	537	753	799	828	453
16	191	152	97	112	124	111	474	535	749	791	834	446
17	182	149	104	112	122	109	477	562	762	753	838	438
18	180	155	108	112	122	109	504	564	789	726	846	442
19	179	152	106	112	122	108	497	564	799	725	847	441
20	178	141	103	112	121	106	489	555	810	711	841	434
21	176	140	106	110	121	111	465	553	807	745	852	437
22	175	140	107	114	123	114	462	557	807	726	838	440
23	184	140	106	114	124	97	504	554	811	727	857	432
24	174	139	107	111	122	107	527	543	803	729	823	437
25	173	139	104	115	122	99	522	543	804	741	784	421
26	167	138	106	112	122	111	529	544	809	759	687	420
27	145	135	109	132	121	119	538	548	803	771	604	419
28	144	132	104	122	118	133	536	557	801	767	513	425
29	145	132	111	117	---	134	521	561	807	738	492	429
30	144	133	119	122	---	133	537	564	798	730	492	426
31	143	---	136	119	---	133	---	534	---	733	493	---
TOTAL	7737	4351	3516	3537	3384	3479	11817	17174	21118	23525	23433	14596
MEAN	250	145	113	114	121	112	394	554	704	759	756	487
MAX	380	165	136	132	128	134	538	591	811	799	857	620
MIN	143	132	96	110	113	91	118	534	521	711	492	419
AC-FT	15350	8630	6970	7020	6710	6900	23440	34060	41890	46660	46480	28950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

	2000	2001	2002	2003
MEAN	241	151	131	129
MAX	356	223	176	163
(WY)	2001	2001	2001	2001
MIN	119	93.0	91.8	92.4
(WY)	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 2000 - 2003
ANNUAL TOTAL	124393	137667	
ANNUAL MEAN	341	377	346
HIGHEST ANNUAL MEAN			377
LOWEST ANNUAL MEAN			324
HIGHEST DAILY MEAN	796	857	1270
LOWEST DAILY MEAN	87	91	83
ANNUAL SEVEN-DAY MINIMUM	90	98	86
ANNUAL RUNOFF (AC-FT)	246700	273100	250600
10 PERCENT EXCEEDS	658	784	661
50 PERCENT EXCEEDS	304	347	227
90 PERCENT EXCEEDS	93	111	97

## BOISE RIVER BASIN

## 13210050 BOISE RIVER NEAR MIDDLETON, ID

LOCATION.--Lat 43°41'06", long 116°34'22", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.16, T.4 N., R.2 W., Canyon County, Middleton quad., Hydrologic Unit 17050114, on right bank, 2.9 mi southeast of Middleton, and at mile 29.1.

DRAINAGE AREA.--3,050 mi<sup>2</sup>, approximately.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977, November 1991 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 1997, October 1998 to September 1999 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0 °C Aug. 29, 1999; minimum, 0.2 °C Dec. 21-24, 1998.

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

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	E coli, Coli-lert Quantry MPN/100 mL (50468)	Total coliform, Colert Quantry MPN/100 mL (50569)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)
OCT													
16...	1110	173	192	8.0	10.0	10.4	12.3	120	S5	9	2000	<.04	.19
DEC													
18...	1035	243	234	7.5	.5	4.5	17.1	146	40	5	2400	<.04	.26
FEB													
19...	1235	364	229	8.5	5.5	6.0	15.7	138	45	7	750	<.04	.40
APR													
16...	1130	634	153	8.5	11.5	10.3	13.1	127	87	33	3100	<.04	.35
MAY													
14...	1105	395	152	8.7	16.0	13.2	13.5	140	233	200	6500	<.04	.34
JUN													
18...	1050	487	128	8.1	26.0	16.3	10.8	121	176	99	17000	<.04	.38
JUL													
16...	1036	578	107	7.6	25.5	17.9	9.7	112	112	54	3700	<.04	.32
AUG													
13...	1040	664	125	7.5	23.0	18.9	8.8	103	130	60	5800	<.04	.28
SEP													
17...	1528	361	165	8.6	18.0	17.2	12.0	135	139	34	1200	<.04	.29

Date	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT					
16...	.69	.15	.14	2	.93
DEC					
18...	2.34	.42	.42	3	2.0
FEB					
19...	1.56	.40	.49	9	8.8
APR					
16...	.74	.14	.19	13	22
MAY					
14...	.54	.14	.18	4	4.3
JUN					
18...	.52	.12	.16	10	13
JUL					
16...	.49	.12	.17	5	7.8
AUG					
13...	.46	.12	.16	5	9.0
SEP					
17...	.74	.16	.20	8	7.8

< Less than  
S Most probable value



BOISE RIVER BASIN

13212996 DIVERSIONS FROM BOISE RIVER BETWEEN GAGING STATIONS  
AT GLENWOOD BRIDGE AND NEAR PARMA, ID

Between "at Glenwood Bridge" and "near Parma" gaging stations (published as "between at Boise and Notus gaging stations" prior to 1974, and "between at Boise and near Parma gaging stations", 1974-82), 23 canals and several small farm laterals divert water from Boise River for irrigation.

Records of daily diversions for each canal beginning in 1916 are on file in office of the Idaho Department of Water Resources. Prior to October 1967 there was no record of October to March diversions.

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly, and discharge measurements are made weekly. Records provided by watermaster for Boise River.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	---	---	---	---	---	254	1330	1620	1700	1570	1390
2	1020	---	---	---	---	---	323	1340	1630	1700	1560	1370
3	1020	---	---	---	---	---	338	1350	1640	1720	1540	1380
4	1020	---	---	---	---	---	341	1350	1660	1720	1530	1390
5	1010	---	---	---	---	---	340	1350	1670	1720	1520	1400
6	1010	---	---	---	---	---	338	1360	1680	1710	1520	1390
7	1010	---	---	---	---	---	375	1370	1680	1700	1520	1380
8	995	---	---	---	---	---	630	1380	1680	1680	1520	1370
9	992	---	---	---	---	---	661	1390	1690	1650	1530	1350
10	991	---	---	---	---	---	693	1400	1700	1640	1530	1310
11	985	---	---	---	---	---	724	1410	1730	1640	1530	1290
12	980	---	---	---	---	---	751	1420	1680	1630	1530	1290
13	974	---	---	---	---	---	779	1430	1690	1630	1530	1290
14	969	---	---	---	---	---	827	1430	1740	1620	1530	1290
15	927	---	---	---	---	---	893	1440	1740	1620	1530	1290
16	747	---	---	---	---	---	937	1450	1740	1630	1530	1290
17	745	---	---	---	---	---	1000	1460	1740	1630	1540	1280
18	727	---	---	---	---	---	1070	1470	1740	1640	1540	1280
19	710	---	---	---	---	---	1130	1480	1740	1630	1540	1280
20	692	---	---	---	---	---	1190	1500	1750	1620	1540	1270
21	477	---	---	---	---	---	1250	1500	1750	1610	1530	1240
22	339	---	---	---	---	---	1300	1510	1750	1620	1530	1240
23	305	---	---	---	---	---	1310	1520	1760	1610	1510	1220
24	284	---	---	---	---	---	1310	1530	1750	1610	1510	1190
25	267	---	---	---	---	---	1310	1540	1750	1600	1490	1180
26	191	---	---	---	---	---	1310	1540	1740	1600	1480	1180
27	154	---	---	---	---	---	1310	1540	1730	1590	1470	1170
28	138	---	---	---	---	---	1310	1570	1720	1570	1460	1160
29	121	---	---	---	---	---	1320	1590	1710	1570	1440	1150
30	90	---	---	---	---	---	1320	1600	1700	1570	1430	1150
31	20	---	---	---	---	---	---	1600	---	1570	1410	---
TOTAL	20940	---	---	---	---	---	26644	45150	51300	50750	46940	38460
MEAN	675	---	---	---	---	---	888	1456	1710	1637	1514	1282
MAX	1030	---	---	---	---	---	1320	1600	1760	1720	1570	1400
MIN	20	---	---	---	---	---	254	1330	1620	1570	1410	1150
AC-FT	41530	---	---	---	---	---	52850	89560	101800	100700	93110	76290

## BOISE RIVER BASIN

## 13213000 BOISE RIVER NEAR PARMA, ID

LOCATION.--Lat 43°46'54", long 116°58'17", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.7, T.5 N., R.5 W., Canyon County, Parma quad., Hydrologic Unit 17050114, on left bank, at county road crossing, 1.2 mi west of Parma, and at mile 3.8.

DRAINAGE AREA.--3,970 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to June 1939 (gage heights only), September 1971 to September 1997, October 2002 to September 2003.

GAGE.--Water-stage recorder. Datum of gage is 2,196.49 ft above NGVD of 1929. March 1938 to June 1939, nonrecording gage 1.4 mi upstream at different datum.

REMARKS.--Records good. Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,240 ft<sup>3</sup>/s June 14, 1983, gage height, 13.83 ft; minimum, 60 ft<sup>3</sup>/s Apr. 18, 19, 1987, gage height, 5.88 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943, reached a discharge of about 20,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,270 ft<sup>3</sup>/s Aug. 25; minimum daily, 519 ft<sup>3</sup>/s June 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	871	e900	808	954	882	748	581	842	877	814	782	744
2	838	e900	812	853	e900	742	548	829	867	805	784	702
3	793	e900	808	825	e850	746	534	835	850	762	838	677
4	801	e890	805	809	823	727	560	956	839	805	902	662
5	818	885	804	797	799	698	582	1200	749	870	855	670
6	815	885	805	787	e800	686	560	1160	687	937	826	676
7	815	885	802	786	e800	686	669	1100	651	959	781	687
8	872	889	795	784	e800	775	722	1050	628	876	772	733
9	822	936	792	782	788	768	908	1070	604	828	786	800
10	760	976	797	779	782	684	956	1020	519	808	744	919
11	701	922	800	771	787	737	943	989	731	793	788	984
12	661	894	817	769	786	727	997	1090	873	753	763	993
13	687	881	803	780	802	716	955	1050	865	753	770	912
14	725	872	824	804	861	716	986	936	686	753	714	923
15	772	871	800	820	829	720	936	829	658	724	685	937
16	788	874	775	788	811	759	903	754	677	724	735	917
17	886	865	781	781	808	724	829	797	640	718	762	900
18	803	850	775	779	800	707	824	841	659	705	800	856
19	796	856	767	776	792	653	807	879	701	710	770	858
20	790	850	767	777	790	604	704	819	852	716	745	904
21	822	843	775	781	780	600	672	752	952	734	728	922
22	894	838	784	777	765	618	572	692	998	735	839	951
23	934	833	772	804	762	612	589	680	1120	673	1200	939
24	962	828	758	789	763	527	575	654	1150	650	1220	918
25	946	819	751	818	764	582	608	675	1030	742	1270	942
26	960	821	751	803	758	615	639	725	981	909	1200	910
27	958	823	787	837	759	674	690	664	941	1080	1020	901
28	920	809	773	996	753	632	716	641	892	1170	880	917
29	935	804	758	884	---	614	681	590	851	1080	770	956
30	946	803	818	879	---	602	694	656	867	980	733	973
31	e900	---	1090	898	---	590	---	858	---	813	702	---
TOTAL	25991	26002	24754	25267	22394	20989	21940	26633	24395	25379	26164	25783
MEAN	838	867	799	815	800	677	731	859	813	819	844	859
MAX	962	976	1090	996	900	775	997	1200	1150	1170	1270	993
MIN	661	803	751	769	753	527	534	590	519	650	685	662
AC-FT	51550	51570	49100	50120	44420	41630	43520	52830	48390	50340	51900	51140

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	1089	1043	1113	1527	2006	2541	2984	3015	2094	991	789	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994	994
MAX	2395	2322	2512	6882	7916	7466	6942	6762	6817	3098	1580	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587
(WY)	1985	1985	1984	1997	1997	1997	1986	1984	1983	1982	1983	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
MIN	423	633	606	652	653	506	219	276	315	282	187	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
(WY)	1993	1993	1993	1993	1993	1992	1977	1992	1977	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

## SUMMARY STATISTICS

## FOR 2003 WATER YEAR

## WATER YEARS 1971 - 2003

ANNUAL TOTAL	295691	
ANNUAL MEAN	810	1678
HIGHEST ANNUAL MEAN		3895
LOWEST ANNUAL MEAN		459
HIGHEST DAILY MEAN	1270	Aug 25
LOWEST DAILY MEAN	519	Jun 10
ANNUAL SEVEN-DAY MINIMUM	565	Mar 31
ANNUAL RUNOFF (AC-FT)	586500	1216000
10 PERCENT EXCEEDS	956	5040
50 PERCENT EXCEEDS	800	915
90 PERCENT EXCEEDS	662	489

e Estimated

BOISE RIVER BASIN

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--Chemical analyses July 1969 to December 1972, December 1973 to September 1981, October 1986 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March to September 1973, November 1974 to March 1975, September 1975 to September 1976, October 1986 to September 1995, April to September 1997, October 1998 to September 1999 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 28.5 °C June 27-28, 1973; minimum, 0.0 °C on many days during winter months.

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

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC col/100 mL (31625)	E coli, Coli-Quantry water, MPN/100 mL (50468)	Total coliform, Colert Quantry water, MPN/100 mL (50569)	Ammonia water, unfltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	
OCT	16...	1435	739	446	8.4	16.0	11.9	14.1	142	91	57	1300	<.04	.26
DEC	18...	1412	772	505	8.1	8.0	6.2	15.4	135	52	31	2000	E.03	.30
FEB	19...	1610	795	473	8.3	10.5	7.5	13.3	121	58	31	1200	<.04	.51
APR	16...	1445	910	278	8.2	16.0	13.4	10.9	113	500	280	3300	<.04	.62
MAY	14...	1442	961	315	8.3	22.5	17.3	11.1	125	323	290	7300	<.04	.53
JUN	18...	1410	680	344	8.1	31.5	21.7	8.7	109	500	24	6100	<.04	.55
JUL	16...	1409	722	336	8.2	32.5	23.3	9.7	123	78	9	2600	<.04	.58
AUG	13...	1412	772	342	8.2	29.0	21.9	10.0	123	138	16	8700	<.04	.53
SEP	17...	1100	910	395	8.0	13.0	14.6	9.5	101	380	140	5800	<.04	.50

Date	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	
OCT	16...	2.59	.27	.26	6	12
DEC	18...	4.15	.40	.40	7	15
FEB	19...	3.59	.35	.44	22	47
APR	16...	1.40	.17	.31	63	155
MAY	14...	1.30	.19	.25	36	93
JUN	18...	1.19	.23	.29	28	59
JUL	16...	1.26	.23	.31	30	58
AUG	13...	1.38	.21	.30	33	69
SEP	17...	1.81	.22	.28	22	54

< Less than  
E Estimated value

## SNAKE RIVER MAIN STEM

## 13213100 SNAKE RIVER AT NYSSA, OR

LOCATION.--Lat 43°52'34", long 116°58'53", 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.6 N., R.5 W., Canyon County, Nyssa quad., Hydrologic Unit 17050115, on right bank, 300 ft upstream from U.S. Highway 20-26 bridge at Nyssa, Oregon, 2.3 mi downstream from Boise River, and at mile 385.2.

DRAINAGE AREA.--58,700 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--November 1974 to September 1986, February 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,170 ft above NGVD of 1929, from topographic map. Prior to 1989, station located on left bank, in Oregon.

REMARKS.--No estimated daily discharges. Records good. Station equipment includes satellite telemetry. Flow regulated by many reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,900 ft<sup>3</sup>/s Apr. 19, 1984, gage height, 13.34 ft; minimum, 4,110 ft<sup>3</sup>/s June 7, 1992, gage height, 4.32 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,780 ft<sup>3</sup>/s Oct. 6, 20; minimum daily, 4,690 ft<sup>3</sup>/s June 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8910	9000	8400	9290	8750	8010	7900	8220	8190	5550	5840	6690
2	9050	8870	8400	8510	9000	7730	7230	7560	7580	5480	5710	6790
3	9490	8660	8720	8470	8410	8340	7500	7540	7720	5180	5540	7030
4	8380	7960	8830	8370	8470	8190	7510	7630	7500	5430	5720	6810
5	8790	8670	8650	8270	8440	7800	7300	7980	6840	5300	5790	6690
6	9780	8240	8630	7980	8260	8360	7080	8450	6480	5540	6020	6680
7	9370	8940	8460	8160	8220	7910	7250	8310	6600	5710	6240	6910
8	9170	8630	8550	8000	7780	8170	7270	8410	6290	5640	6030	6950
9	9480	8580	8070	8610	8340	8480	7330	8460	6210	5320	6380	6730
10	9090	8560	8300	8340	8070	7570	7360	8370	5460	5080	6050	7080
11	8980	8960	8150	7720	7930	8120	7120	8450	4690	5040	6020	7120
12	8650	8780	8500	7540	7750	8060	7100	9210	4890	4940	5700	7100
13	9000	9090	8310	8310	8260	8110	7100	9520	5320	4840	5840	7440
14	9410	8620	8660	8650	8370	8190	7120	8780	5090	4920	6000	7520
15	8820	8350	8660	7980	8180	7920	6480	8690	5280	4860	5900	7990
16	9680	8550	8180	8050	8150	8280	6720	7610	5250	4960	5910	7780
17	9320	8750	8460	8430	8430	8030	6980	7040	5230	5000	5970	7630
18	9400	8380	8030	8180	8070	8380	7040	7300	5140	4960	6030	7600
19	8720	8550	7970	8050	8490	7520	7040	7970	5420	4980	6100	7850
20	9780	8670	8590	7880	8710	8310	6970	7810	5600	5050	6070	7850
21	9310	8540	8040	8030	9050	7990	7310	7710	5780	5070	5790	7500
22	9380	8580	8080	8180	7680	7920	7450	7640	6180	5010	6140	8290
23	9540	8810	8110	8200	7210	8130	7180	7630	6210	4950	6840	7850
24	9120	8490	8200	8130	8330	7630	7460	7650	6060	5180	7510	8150
25	9180	8350	8620	8020	8240	7670	7160	7360	5950	5350	7730	7430
26	9200	8660	8430	7950	8020	7850	7480	7170	5890	5800	7730	7590
27	9680	8770	8160	8330	8060	8090	7390	7430	5850	6190	7240	7250
28	9330	8630	8370	8920	8290	8100	7460	7650	5860	6770	7000	7650
29	8380	8490	8280	8570	---	8050	7650	7830	5790	6190	6790	7620
30	8910	8870	8020	9010	---	7400	7720	7960	5700	5780	6460	7640
31	9340	---	8510	8820	---	7280	---	7680	---	5830	6610	---
TOTAL	284640	259000	259340	256950	230960	247590	217660	247020	180050	165900	194700	221210
MEAN	9182	8633	8366	8289	8249	7987	7255	7968	6002	5352	6281	7374
MAX	9780	9090	8830	9290	9050	8480	7900	9520	8190	6770	7730	8290
MIN	8380	7960	7970	7540	7210	7280	6480	7040	4690	4840	5540	6680
AC-FT	564600	513700	514400	509700	458100	491100	431700	490000	357100	329100	386200	438800

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

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	12140	12630	13090	14220	15180	17590	19870	18790	16080	8680	8613	10510							
MAX	21360	24660	24320	30290	38580	40010	43970	49060	41100	16480	12620	17110							
(WY)	1985	1985	1984	1984	1997	1986	1984	1984	1984	1983	1997	1997							
MIN	8102	8633	8366	8289	8212	7987	6033	5367	5223	5352	5075	6664							
(WY)	1993	2003	2003	2003	2002	2003	1992	1992	1992	2003	1992	1992							

SUMMARY STATISTICS	FOR 2002	CALENDAR YEAR	FOR 2003	WATER YEAR	WATER YEARS 1975 - 2003			
ANNUAL TOTAL	2864810		2765020					
ANNUAL MEAN	7849		7575		13870			
HIGHEST ANNUAL MEAN					26260			
LOWEST ANNUAL MEAN					7365			
HIGHEST DAILY MEAN		10100	Mar 26	9780	Oct 6	57400	Apr 20	1984
LOWEST DAILY MEAN		5040	Jun 30	4690	Jun 11	4240	Jun 7	1992
ANNUAL SEVEN-DAY MINIMUM		5240	Jun 29	4930	Jul 12	4520	Jun 6	1992
ANNUAL RUNOFF (AC-FT)	5682000		5484000		10050000			
10 PERCENT EXCEEDS		8910		8890		25600		
50 PERCENT EXCEEDS		8160		7920		10600		
90 PERCENT EXCEEDS		6170		5680		7100		

MALHEUR RIVER BASIN

13233300 MALHEUR RIVER BELOW NEVADA DAM NEAR VALE, OR

LOCATION.--Lat 43°59'20", long 117°13'10", in NE¼SW¼ sec.21, T.18 S., R.45 E., Malheur County, Vale East quad., Hydrologic Unit 17050117, on right bank, 510 ft downstream from dam and headgates of Nevada Canal, and 1.5 mi northeast of Vale, Oregon.

DRAINAGE AREA.--3,880 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1926 to September 1934, October 1950 to September 1954, October 1993 to current year. Monthly discharge only for 1936-42, 1944-50, furnished by the State Engineer of Oregon, published in WSP 1317.

GAGE.--Water-stage recorder. Elevation of gage is 2,220 ft above NGVD of 1929, from topographic map. Prior to Nov. 17, 1930, at datum 1.00 ft higher.

REMARKS.--Records good. Many diversions for irrigation above station. Since March 1930, Vale-Oregon Canal has diverted in sec.31 T.20 S., R.41 E., for irrigation above station and on Willow Creek, a tributary which enters partly above and partly below station.

Gillerman-Frohman Canal diverts on left bank in sec.8, T.19 S., R.44 E., for irrigation above and below station. Nevada Canal diverts on right bank 300 ft above station for irrigation below station. Flow regulated by Warm Springs Reservoir and, since December 1935, by Beulah Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,530 ft<sup>3</sup>/s Feb. 28, 1940, gage height, 8.88 ft; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24, 1957 reached a stage of 14.6 ft, discharge 21,000 ft<sup>3</sup>/s. Flood of Mar. 19, 1993 reached a stage of 13.31 ft, discharge 16,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 191 ft<sup>3</sup>/s July 27; minimum daily, 0.32 ft<sup>3</sup>/s Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	139	78	72	72	61	4.2	39	75	20	3.0	12
2	8.4	141	77	68	73	61	4.9	7.0	39	16	5.1	3.0
3	13	99	76	66	72	61	5.0	3.7	31	14	7.3	2.8
4	19	98	76	66	70	59	5.4	3.8	18	13	6.8	2.8
5	23	108	78	66	68	57	6.0	11	8.0	10	9.9	2.4
6	25	103	76	66	69	55	6.4	12	4.5	14	5.3	2.4
7	32	100	75	66	67	54	7.0	8.7	4.8	14	11	1.8
8	38	98	75	63	65	53	6.6	7.2	13	9.3	13	1.3
9	40	97	74	63	65	53	8.5	8.2	13	6.7	5.1	1.2
10	40	96	73	63	64	53	9.7	5.3	7.0	6.2	4.9	1.3
11	38	90	74	63	63	54	6.6	4.9	3.8	8.2	5.5	1.3
12	38	90	76	63	64	53	6.3	14	4.6	5.1	5.4	1.8
13	40	90	76	63	65	53	7.6	14	6.1	12	5.2	2.0
14	38	86	79	67	70	53	7.0	6.4	4.1	8.0	4.5	2.0
15	36	85	75	70	68	57	6.5	5.1	4.2	5.1	1.7	2.0
16	28	84	73	65	68	60	5.6	3.7	4.1	3.8	1.2	1.8
17	23	85	73	63	68	56	4.7	3.0	4.2	3.0	1.8	1.6
18	16	83	71	63	66	53	3.0	12	8.7	3.1	2.8	1.6
19	15	83	68	63	66	53	3.1	42	24	3.7	2.8	1.6
20	22	80	69	63	66	54	3.8	26	52	4.2	2.7	1.6
21	24	80	66	63	63	53	3.2	6.6	26	4.4	2.4	1.6
22	19	79	66	63	63	53	3.6	11	25	4.2	2.2	1.6
23	21	80	66	63	61	53	e3.0	20	33	4.0	3.9	1.6
24	21	79	66	65	60	53	e2.0	18	30	4.0	12	1.6
25	24	79	66	66	61	22	3.4	16	36	3.6	5.1	1.6
26	26	79	66	66	62	3.0	7.4	23	24	3.8	1.4	0.93
27	27	79	66	66	62	3.0	13	25	23	191	1.5	0.40
28	30	79	67	66	61	2.8	73	13	20	119	1.6	0.40
29	31	78	68	66	---	2.8	69	17	18	47	1.6	0.40
30	34	78	70	68	---	2.8	48	33	21	20	1.7	0.32
31	97	---	79	70	---	2.8	---	102	---	5.7	4.8	---
TOTAL	890.9	2725	2238	2024	1842	1364.2	343.5	521.6	585.1	586.1	143.2	58.75
MEAN	28.7	90.8	72.2	65.3	65.8	44.0	11.4	16.8	19.5	18.9	4.62	1.96
MAX	97	141	79	72	73	61	73	102	75	191	13	12
MIN	4.5	78	66	63	60	2.8	2.0	3.0	3.8	3.0	1.2	0.32
AC-FT	1770	5410	4440	4010	3650	2710	681	1030	1160	1160	284	117

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2003, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003		
MEAN	150	138	138	293	442	541	534	262	147	96.1	92.4	131
MAX	228	175	314	1589	1322	1881	1695	988	541	179	220	300
(WY)	2000	2001	1997	1997	1997	1999	1999	1998	1998	1998	1999	1998
MIN	24.3	76.8	72.2	65.3	65.8	44.0	11.4	16.8	15.2	17.8	4.62	1.96
(WY)	2002	2002	2003	2003	2003	2003	2003	2003	2002	2002	2003	2003

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1994 - 2003

ANNUAL TOTAL	17748.7	13322.35										
ANNUAL MEAN	48.6	36.5								246		
HIGHEST ANNUAL MEAN										535		1999
LOWEST ANNUAL MEAN										36.5		2003
HIGHEST DAILY MEAN	175	Mar 14	191	Jul 27	6230	Jan 3	1997					
LOWEST DAILY MEAN	2.8	Sep 14	0.32	Sep 30	0.32	Sep 30	2003					
ANNUAL SEVEN-DAY MINIMUM	3.1	Sep 12	0.81	Sep 24	0.81	Sep 24	2003					
ANNUAL RUNOFF (AC-FT)	35200	26420	178000									
10 PERCENT EXCEEDS	100	78	583									
50 PERCENT EXCEEDS	38	24	137									
90 PERCENT EXCEEDS	4.3	2.4	13									

e Estimated