

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-7583

Exam Date: 12/31/2008

1. Current Owner: IDAHO WATER RESOURCE BOARD
PO BOX 83720
BOISE ID 83720-0098
(208)287-4800

2. SOURCE

CLEARWATER RIVER

TRIBUTARY

SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion:

Ending of Reach for 85-7583 has the same approx. location as the Ending of Reach for 83-11966

Ending of Reach for 85-7583 has the same approx. location as the Beginning of Reach for 86-7318

Beginning of Reach for 85-7583 has the same approx. location as the Ending of Reach for 82-12220 and 81-7162

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

CLEARWATER RIVER L7 (SW¼NE¼) Sec. 5, Twp 32N, Rge 04E, B.M. IDAHO County
(Beginning of Reach)

CLEARWATER RIVER L8 (NW¼SE¼SE¼) Sec. 33, Twp 37N, Rge 01E, B.M. CLEARWATER County
(Ending of Reach)

Method of Determination: GIS, Satellite Imagery

2. N/A Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater. (Attachment A)
- X Aerial Photo Attached (required for irrigation of 10+ acres). (Attachment B)
- N/A Photo of Diversion and System Attached

3.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
N/A					

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2. Measurements:

Through October 28, 2008, USGS staff have completed 400 stream flow measurements for the Clearwater River at Orofino, ID stream gaging station. The gaging station is approximately 4 miles upstream from the confluence of the Clearwater River and the North Fork Clearwater River. The period of record at this site is from 1930 to 1938 and from 1964 to present. Water-Data Report 2007 (Attachment C) describes mean daily discharge data, maximum flows, minimum flows, and historical records.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: Minimum Stream Flow, non-consumptive use
No annual volume limitation required

G. NARRATIVE/REMARKS/COMMENTS

Permit no. 85-7583 should be licensed as permitted based on the findings of fact, conclusions of law, and order set forth in the Final Order dated December 21, 2001.

USGS stream flow records show that the permitted flows for August through November, 1,836 cfs, are available at least 50 percent of the time and the permitted flows for December through July, 3,515 cfs, are available at least 70 percent of the time (Attachment D) as described in Finding of Fact No. 7 in the Final Order.

The permitted ending of reach point is described as Lot 8 (NW¼SE¼SE¼) Sec. 33, Twp 37N, Rge 01E, at the confluence of North Fork Clearwater River and the Clearwater River. Based on available satellite imagery and public land survey system data, this confluence point is in fact located in Lot 8. However, a 10-acre tract description in this case would be inaccurate. The ending of reach point in Lot 8 should be described only to the 40-acre tract: Lot 8 (SE¼SE¼) Sec. 33, Twp 37N, Rge 01E, at the confluence of North Fork Clearwater River and the Clearwater River.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MINIMUM STREAM FLOW	12/01 to 07/31	3,515 CFS	N/A
MINIMUM STREAM FLOW	08/01 to 11/30	1,836 CFS	N/A
<u>Totals:</u>		3,515 CFS	

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above ☒ None

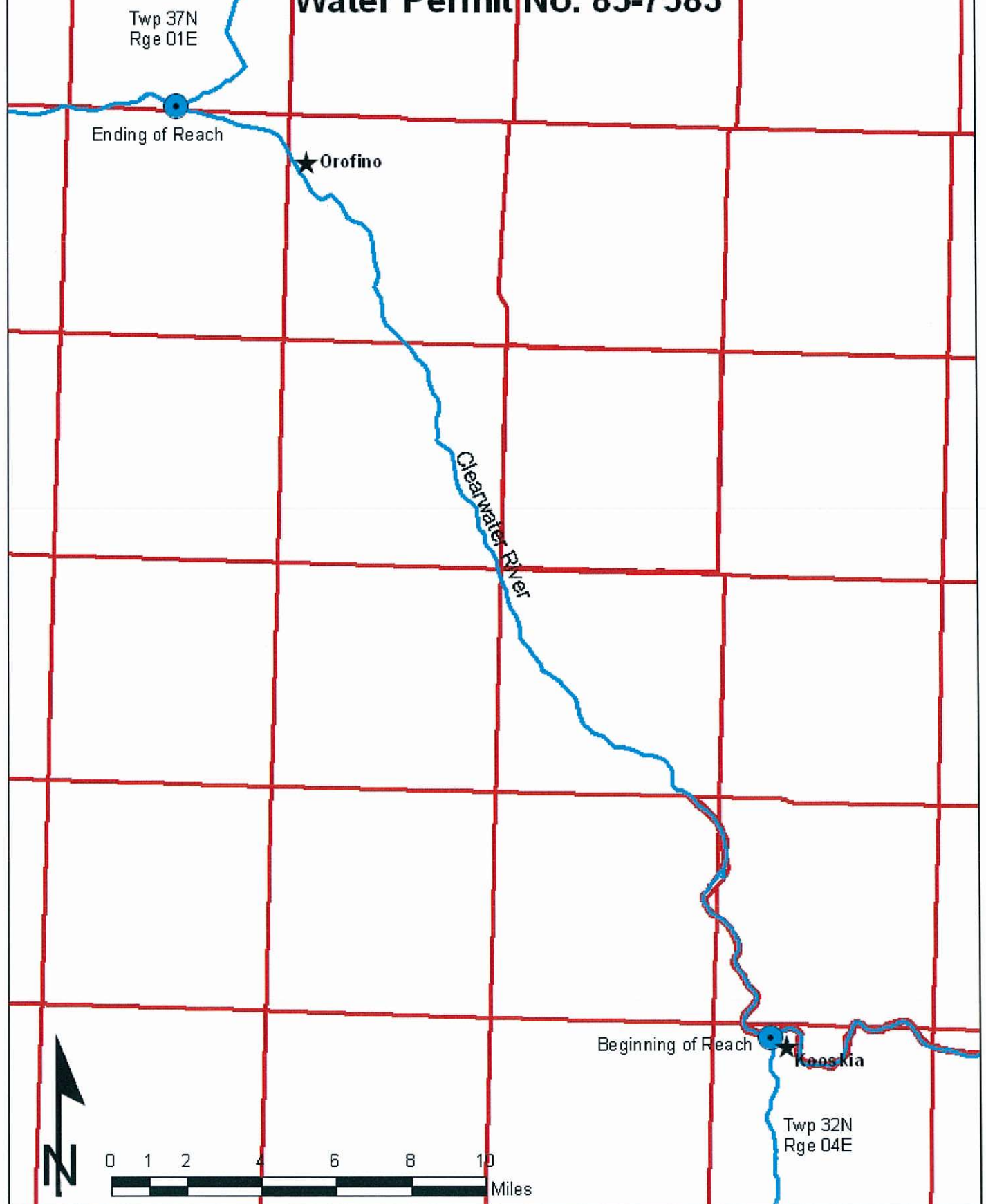
____ Change P.U. as reflected above ____ Add P.U. as reflected above ____ Other

I. AUTHENTICATION

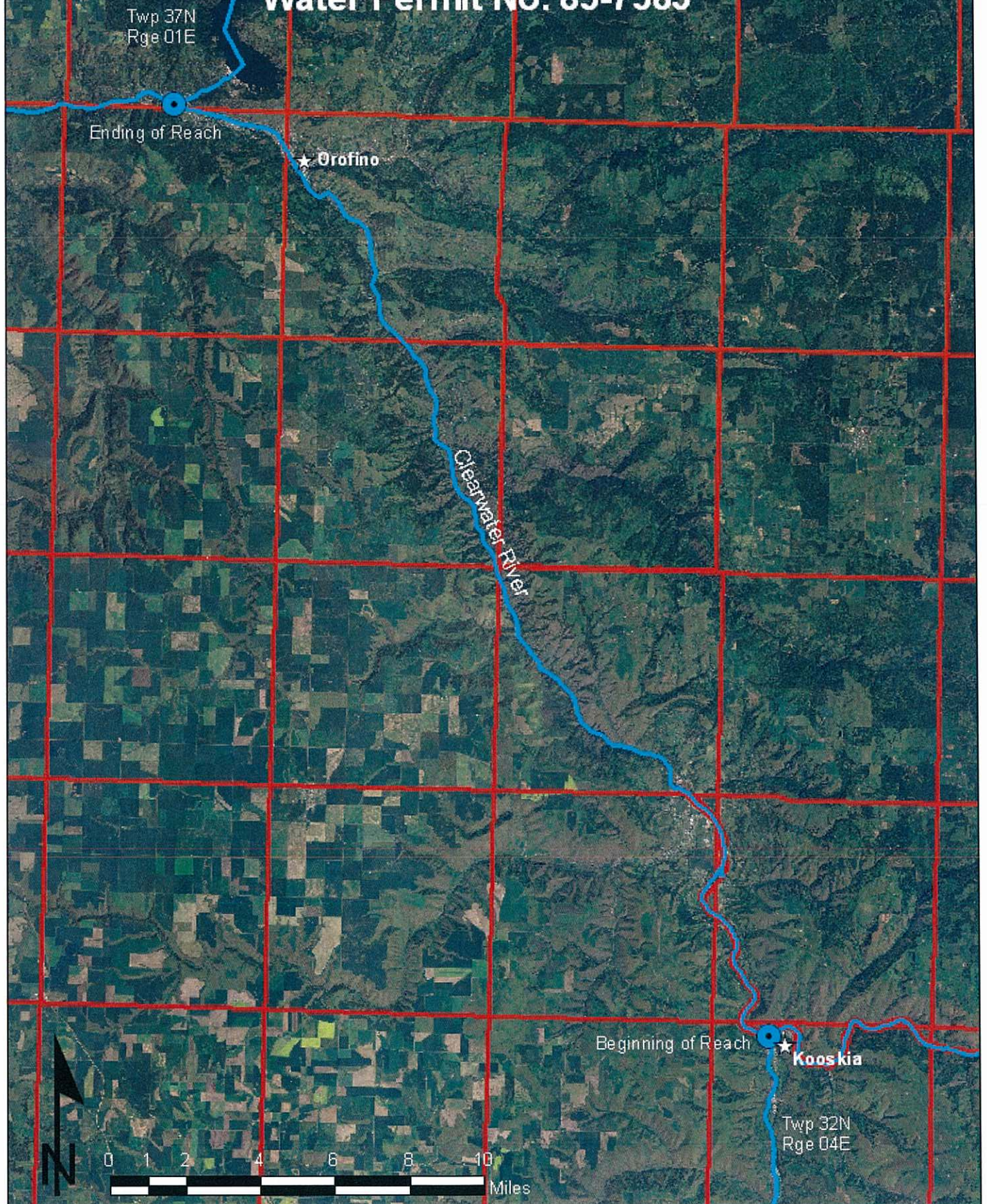
Field Examiner's Name AARON MARSHALL Date 12/31/2008

Reviewer _____ Date _____

Attachment A - Map Water Permit No. 85-7583



Attachment B - Satellite Imagery Water Permit No. 85-7583



Water-Data Report 2007

13340000 CLEARWATER RIVER AT OROFINO, ID

Clearwater Basin
Clearwater Subbasin

LOCATION.--Lat 46°28'42", long 116°15'27" referenced to North American Datum of 1983, in SW ¼ SE ¼ NW ¼ sec.7, T.36 N., R.2 E., Clearwater County, ID, Hydrologic Unit 17060306, Orofino West quad., on right bank, 56 ft upstream from State Highway 7 bridge at Orofino, and at mile 44.6.

DRAINAGE AREA.--5,580 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1930 to September 1938, October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.80 ft above NGVD of 1929 (levels by Idaho Department of Highways). Prior to Sept. 30, 1938, nonrecording gage at site 0.1 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,300 ft³/s June 2, 1972, gage height, 18.84 ft, present datum; minimum observed, probably less than 250 ft³/s Jan. 8, 1937, during period of ice effect; minimum gage height, 1.75 ft, Nov. 2, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 20.32 ft, present site and datum, discharge, 99,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 8	0930	*34,600	*11.56
May 2	1330	31,100	10.97
May 13	1115	34,400	11.52

Minimum discharge, 858 ft³/s Sept. 16, gage height, 2.08 ft.

13340000 CLEARWATER RIVER AT OROFINO, ID—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,210	1,240	3,820	3,370	2,530	4,540	12,500	27,800	16,600	4,800	1,410	998
2	1,180	1,010	4,260	3,430	2,360	4,090	12,000	29,700	17,800	4,530	1,370	1,060
3	1,150	1,030	3,810	3,680	2,140	3,930	11,000	30,000	18,300	4,280	1,330	1,070
4	1,150	1,830	3,270	4,850	2,360	3,930	10,300	26,200	18,600	4,060	1,300	1,010
5	1,170	2,350	3,600	4,400	2,390	4,050	10,000	22,100	19,000	3,830	1,260	975
6	1,210	3,450	3,850	3,970	2,690	4,100	10,300	19,200	18,800	3,630	1,250	1,000
7	1,250	18,600	3,610	3,730	2,800	4,410	11,200	17,700	17,800	3,430	1,270	1,000
8	1,230	31,800	3,410	3,640	2,890	5,580	12,500	17,700	15,300	3,280	1,280	1,030
9	1,220	17,000	3,330	3,750	3,430	6,420	14,400	20,300	13,900	3,100	1,260	963
10	1,220	10,700	3,350	3,830	4,060	6,500	15,700	25,500	13,900	2,960	1,230	929
11	1,200	8,470	3,470	3,700	4,250	6,970	13,900	30,100	17,200	2,830	1,210	913
12	1,180	7,740	3,500	e2,200	6,240	8,820	12,800	30,400	15,300	2,700	1,180	904
13	1,160	6,570	4,190	e1,100	6,470	15,100	11,900	32,300	13,800	2,570	1,150	893
14	1,150	6,360	5,970	e1,300	5,860	17,000	11,400	28,500	12,800	2,470	1,140	880
15	1,160	5,780	7,190	e1,500	5,900	14,600	12,200	26,000	12,200	2,380	1,130	873
16	1,280	5,360	7,310	e1,800	8,050	12,600	12,300	25,500	11,300	2,280	1,100	871
17	1,820	6,470	5,490	e2,200	8,450	11,900	12,000	26,600	10,900	2,220	1,080	881
18	1,790	5,420	3,680	e2,600	7,910	12,400	12,800	28,600	10,400	2,250	1,070	909
19	1,570	4,910	2,870	e3,000	7,520	14,100	12,500	28,700	9,270	2,270	1,070	955
20	1,810	4,860	3,130	3,370	6,960	15,400	11,600	27,300	8,640	2,110	1,130	989
21	2,800	6,450	3,500	3,280	6,830	15,800	11,000	25,800	8,440	2,010	1,310	1,010
22	2,440	6,850	3,930	3,120	6,200	13,900	10,700	22,700	8,170	1,920	1,480	1,000
23	1,930	6,560	4,210	2,980	6,010	13,100	11,300	20,400	7,790	1,850	1,430	989
24	1,700	6,020	3,790	2,900	5,600	13,000	12,400	18,400	7,290	1,800	1,270	1,460
25	1,600	5,850	3,630	2,750	5,210	14,000	13,500	17,200	6,790	1,750	1,160	1,930
26	1,610	5,420	4,080	2,610	5,260	17,800	14,500	16,300	6,360	1,700	1,110	1,490
27	1,550	5,010	5,020	2,530	5,130	16,600	14,800	16,100	5,850	1,650	1,060	1,270
28	1,480	4,870	5,030	2,280	4,760	16,100	16,300	18,400	5,480	1,630	1,030	1,180
29	1,440	4,070	4,140	2,100	---	14,100	20,500	17,100	5,240	1,580	1,010	1,180
30	1,420	3,600	3,490	2,280	---	12,900	25,000	15,500	5,050	1,500	1,000	1,300
31	1,450	---	3,210	2,520	---	12,200	---	15,700	---	1,450	989	---
Total	45,530	205,650	127,140	90,770	140,260	335,940	393,300	723,800	358,270	80,820	37,069	31,912
Mean	1,469	6,855	4,101	2,928	5,009	10,840	13,110	23,350	11,940	2,607	1,196	1,064
Max	2,800	31,800	7,310	4,850	8,450	17,800	25,000	32,300	19,000	4,800	1,480	1,930
Min	1,150	1,010	2,870	1,100	2,140	3,930	10,000	15,500	5,050	1,450	989	871
Ac-ft	90,310	407,900	252,200	180,000	278,200	666,300	780,100	1,436,000	710,600	160,300	73,530	63,300
Cfsm	0.26	1.23	0.73	0.52	0.90	1.94	2.35	4.18	2.14	0.47	0.21	0.19
In.	0.30	1.37	0.85	0.61	0.94	2.24	2.62	4.83	2.39	0.54	0.25	0.21

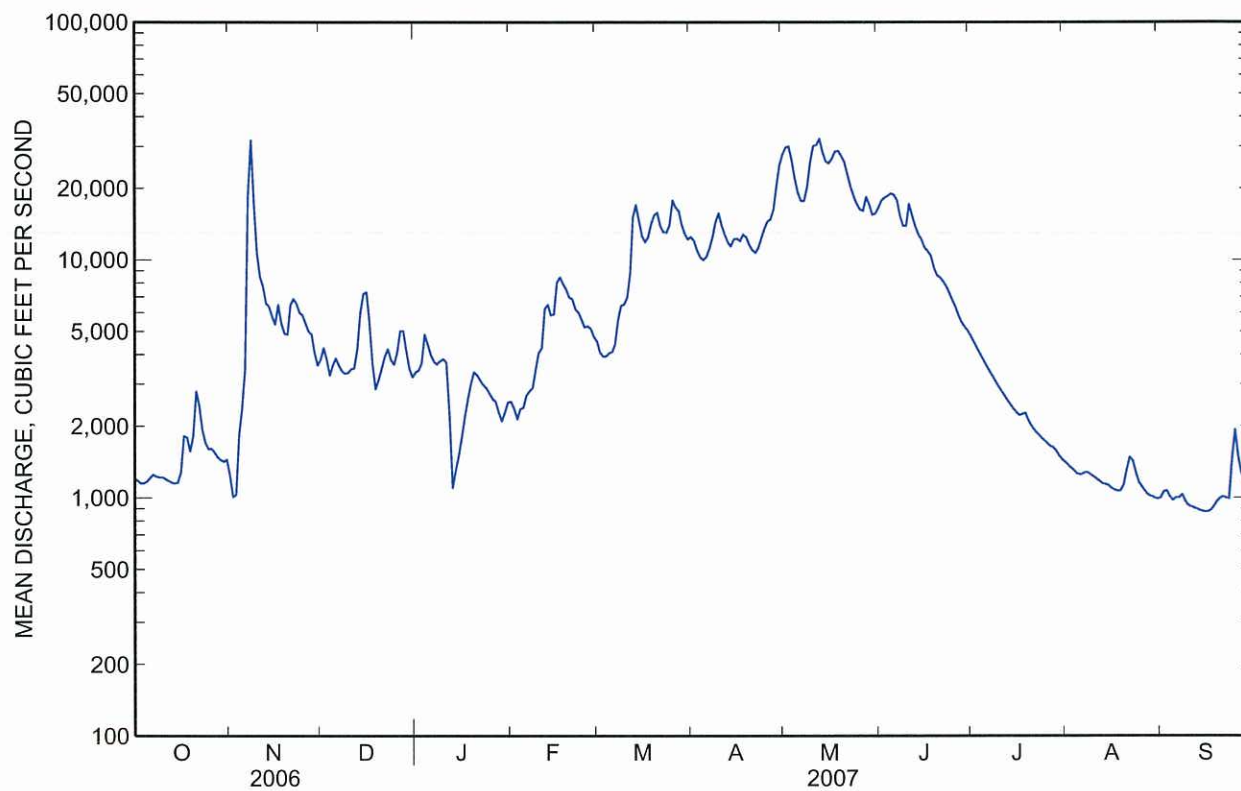
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,125	3,205	3,781	4,063	5,017	7,783	15,560	28,440	23,490	6,368	2,064	1,766
Max	5,305	13,170	18,430	11,000	19,200	19,890	28,010	48,070	53,100	18,200	4,497	4,756
(WY)	(1969)	(1996)	(1996)	(1934)	(1996)	(1972)	(1936)	(1997)	(1974)	(1975)	(1975)	(1968)
Min	833	925	1,124	800	1,030	2,365	6,390	17,110	6,450	2,009	971	860
(WY)	(1988)	(1937)	(1936)	(1937)	(1937)	(1937)	(1973)	(1977)	(1934)	(1934)	(1931)	(1987)

13340000 CLEARWATER RIVER AT OROFINO, ID—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1931 - 2007	
Annual total	3,060,002		2,570,461		8,640	
Annual mean	8,384		7,042		14,400	
Highest annual mean					4,741	
Lowest annual mean					1996	
Highest daily mean	56,200	May 20	32,300	May 13	81,200	Jun 2, 1972
Lowest daily mean	963	Sep 14	871	Sep 16	250	Jan 8, 1937
Annual seven-day minimum	993	Sep 9	887	Sep 12	529	Jan 3, 1937
Annual runoff (ac-ft)	6,070,000		5,099,000		6,260,000	
Annual runoff (cfs)	1.50		1.26		1.55	
Annual runoff (inches)	20.40		17.14		21.04	
10 percent exceeds	23,100		17,400		24,000	
50 percent exceeds	4,190		3,930		3,750	
90 percent exceeds	1,220		1,120		1,320	



13340000 CLEARWATER RIVER AT OROFINO, ID—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1989, October 1993 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1993 to current year.

INSTRUMENTATION.—Water temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 29.5°C July 25, 1994; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 28.5°C July 27; minimum, 0.0°C many days in winter months.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	16.0	14.0	3.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.5
2	15.5	13.5	2.5	2.0	0.5	0.0	0.5	0.0	0.0	0.0	2.5	2.0
3	14.5	13.0	3.5	2.5	0.5	0.0	1.0	0.5	0.0	0.0	3.0	2.0
4	14.5	13.0	5.0	3.5	0.0	0.0	1.0	1.0	0.0	0.0	3.5	2.5
5	15.5	13.5	6.5	5.0	0.5	0.0	1.0	1.0	0.5	0.0	4.5	3.0
6	15.5	13.5	6.5	6.5	0.5	0.0	1.5	1.0	0.5	0.0	5.5	4.0
7	15.5	13.5	8.0	6.5	0.5	0.0	1.0	0.5	0.5	0.0	5.5	5.0
8	13.5	12.5	8.5	8.0	1.0	0.5	1.5	0.5	0.0	0.0	6.0	5.5
9	13.5	11.5	8.0	6.5	1.0	0.5	2.0	1.5	0.5	0.0	6.0	5.5
10	12.0	10.5	6.5	5.5	1.5	1.0	2.5	2.0	1.0	0.5	6.5	6.0
11	12.0	10.0	5.5	5.0	2.0	1.5	2.0	0.0	2.0	1.0	7.0	6.5
12	11.5	9.5	5.5	5.0	2.5	2.0	0.0	0.0	2.0	2.0	7.5	6.0
13	11.5	9.5	5.0	5.0	3.0	2.5	0.0	0.0	3.0	2.0	6.0	5.0
14	11.5	9.0	5.0	4.0	3.0	3.0	0.0	0.0	3.5	3.0	5.5	4.5
15	10.5	9.5	4.0	4.0	3.0	3.0	0.0	0.0	3.5	3.5	5.5	4.0
16	11.0	10.0	5.0	4.0	3.0	2.0	0.0	0.0	4.0	3.0	6.0	5.0
17	10.5	9.5	4.5	3.5	2.0	0.5	0.0	0.0	4.0	3.5	6.5	5.5
18	10.5	10.0	4.0	3.5	0.5	0.0	0.0	0.0	4.0	3.0	7.5	6.0
19	10.5	10.0	4.0	3.0	0.0	0.0	0.0	0.0	4.0	3.0	7.5	6.5
20	11.0	10.0	4.0	3.0	0.0	0.0	0.0	0.0	4.0	3.5	7.0	6.0
21	10.0	9.0	5.0	4.0	0.0	0.0	0.0	0.0	3.5	3.0	6.0	5.0
22	9.5	8.5	5.0	5.0	0.0	0.0	0.0	0.0	4.0	3.5	6.0	5.0
23	9.0	8.0	5.0	5.0	0.0	0.0	0.0	0.0	4.5	3.5	7.0	5.5
24	8.5	7.5	5.0	4.0	0.0	0.0	0.0	0.0	3.5	3.5	7.5	6.5
25	8.5	8.0	4.0	3.0	0.0	0.0	0.0	0.0	4.0	3.5	7.5	6.5
26	8.0	7.0	3.0	2.5	0.0	0.0	0.0	0.0	4.5	4.0	6.5	5.5
27	7.5	6.0	2.5	2.0	0.5	0.0	0.0	0.0	4.5	3.5	6.5	6.0
28	7.0	5.5	2.0	1.0	0.5	0.5	0.0	0.0	4.0	3.5	6.0	5.5
29	7.0	5.5	1.0	0.0	0.5	0.0	0.0	0.0	---	---	7.0	5.0
30	6.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	7.0	6.0
31	5.0	3.0	---	---	0.0	0.0	0.0	0.0	---	---	7.0	6.0
Month	16.0	3.0	8.5	0.0	3.0	0.0	2.5	0.0	4.5	0.0	7.5	2.0

13340000 CLEARWATER RIVER AT OROFINO, ID—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	7.5	6.5	10.0	8.5	14.5	12.5	21.5	20.5	27.0	23.0	23.5	21.0
2	7.5	6.5	9.0	8.0	15.0	13.0	22.0	21.0	27.5	23.0	24.0	21.0
3	6.5	5.5	8.0	7.5	15.0	13.0	22.5	21.0	27.5	23.5	24.5	21.0
4	6.5	6.0	7.5	6.5	15.0	13.5	23.5	22.0	26.5	22.5	24.0	21.0
5	8.0	6.0	7.5	5.5	14.0	13.0	24.5	22.5	25.0	22.0	23.5	21.0
6	9.5	7.5	8.5	6.0	13.0	11.0	25.5	23.5	24.5	21.5	23.5	20.0
7	9.5	8.5	10.0	7.5	11.0	9.5	25.5	24.0	25.0	21.5	22.5	19.5
8	9.5	8.5	11.5	9.0	12.0	9.0	25.5	24.0	24.5	21.0	21.5	18.0
9	8.5	8.0	12.0	10.0	13.0	11.5	26.0	24.0	25.0	21.5	20.5	17.0
10	8.0	6.5	12.0	10.0	13.0	12.5	26.0	24.0	25.0	21.5	20.0	16.5
11	7.0	5.5	10.5	9.0	13.5	12.0	27.0	24.5	24.5	20.0	19.5	16.5
12	7.0	5.5	10.5	9.0	14.5	12.5	27.0	25.0	24.5	20.5	19.5	16.5
13	8.0	6.5	10.0	9.0	14.5	13.5	27.0	25.0	25.0	20.5	19.5	16.5
14	8.5	7.5	9.5	8.0	15.0	13.0	27.0	25.0	25.0	21.0	19.0	16.5
15	8.5	8.5	10.5	8.5	16.0	14.0	27.5	25.5	25.0	21.0	18.5	16.5
16	8.5	7.0	11.5	9.0	16.0	15.0	27.5	25.5	24.0	21.5	19.0	16.0
17	8.5	7.5	11.5	10.0	15.5	14.0	27.5	25.5	24.0	21.0	19.0	17.0
18	7.5	6.5	12.0	10.5	15.0	13.5	27.5	25.5	23.5	20.5	18.0	16.0
19	7.0	6.0	11.5	10.0	15.5	14.0	26.5	25.0	22.0	20.5	18.0	15.0
20	7.5	6.0	11.0	9.5	17.0	15.5	27.0	24.0	20.5	20.0	16.5	14.5
21	7.5	6.5	9.5	8.0	18.5	16.5	26.5	24.0	21.5	19.0	16.5	13.5
22	8.5	7.0	8.0	7.0	19.0	18.0	27.5	24.5	23.0	19.0	15.5	13.5
23	9.0	8.5	9.5	7.0	19.5	18.5	28.0	25.5	22.5	19.5	15.5	14.5
24	10.5	8.5	10.5	9.0	19.5	18.5	28.0	26.0	23.0	19.5	15.5	14.0
25	10.5	9.0	11.5	9.0	19.0	18.0	28.0	25.5	23.0	19.0	15.0	13.0
26	10.0	8.0	12.5	10.0	18.0	17.0	28.0	25.0	22.5	19.5	15.0	13.0
27	10.5	8.5	12.5	11.0	18.0	17.0	28.5	25.5	22.0	18.5	15.0	13.0
28	11.0	9.5	11.5	10.0	19.0	17.5	28.0	25.5	22.5	18.5	14.0	13.0
29	11.0	9.5	11.0	8.5	20.5	19.0	28.0	25.0	22.0	18.0	14.0	12.5
30	10.0	8.5	12.5	10.0	21.0	20.0	27.5	25.0	22.0	19.0	12.5	11.5
31	---	---	13.5	11.5	---	---	27.0	23.5	22.5	21.0	---	---
Month	11.0	5.5	13.5	5.5	21.0	9.0	28.5	20.5	27.5	18.0	24.5	11.5

ATTACHMENT D USGS 13340000 CLEARWATER RIVER AT OROFINO ID

Discharge, cubic feet per second (Calculation Period: 1930-10-01 -> 2007-09-30)												
	Mean Monthly Discharge for USGS 13340000* and Water Right No. 85-7583 Minimum Stream Flow values											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean Monthly Discharge	4,060	5,010	7,780	15,600	28,400	23,500	6,370	2,060	1,770	2,120	3,210	3,780
Minimum Stream Flow	3,515	3,515	3,515	3,515	3,515	3,515	3,515	1,836	1,836	1,836	1,836	3,515

*Mean monthly data downloaded from USGS web site for entire available period of record at gaging station

Mean Monthly Discharge vs. Minimum Stream Flow

