

RECLAMATION

Managing Water in the West

December 10, 2007

Dear Customer:

Attached are the monthly water supply outlook and projected reservoir and river operating plans as prepared on December 10, 2007. Inflows to Bighorn Lake continued to remain below normal during November and was the 8th lowest of record for November. The fall and winter inflow is forecast to be about 48 percent of average or the 6th lowest of record. In response, conservative releases will be made this fall and winter. We hope you find the information useful. If you have any questions or concerns, please feel free to call me at (406) 247-7318.

Tim H. Felchle
Reservoir and River Operations



U. S. Department of the Interior
Bureau of Reclamation
Montana Area Office
River and Reservoir Operations

YELLOWTAIL RESERVOIR OPERATIONS
 Water Supply Forecasts and Reservoir Operations
 December 1, 2007

Present Elevations & Storages:

<u>Reservoir</u>	<u>Elevation</u>	<u>Storage</u>	<u>Percent of Normal</u>
Boysen	4703.80	412,594	---
Buffalo Bill	5365.79	438,181	---
Bighorn Lake	3632.08	980,113	100

Actual Inflows (1,000 Acre-Feet):

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
<i>April-July, 2007</i>	<i>614.1</i>	<i>51</i>
<i>WY-2007 Total</i>	<i>1,364.2</i>	<i>54</i>
August	91.3	54
September	106.7	60
October	138.7	73
November	95.8	59

Actual Gains Between Boysen and Buffalo Bill to Yellowtail (1,000 Acre-Feet):

<u>Month</u>	<u>Gains</u>	<u>Percent of Normal</u>
<i>April-July, 2007</i>	<i>188.2</i>	<i>60</i>
<i>WY-2007 Total</i>	<i>462.0</i>	<i>64</i>
August	-28.7	---
September	13.4	31
October	92.9	122
November	63.2	98

December Forecast of December Inflow (1,000 Acre-Feet):

<u>Agency</u>	<u>Inflows</u>	<u>Percent of Normal</u>
USBR	117.4	62

Snowpack Conditions:

S N O W - P R E C I P I T A T I O N U P D A T E
 Based on Mountain Data from NRCS SNOTEL Sites
 As of SATURDAY: DECEMBER 1 , 2007

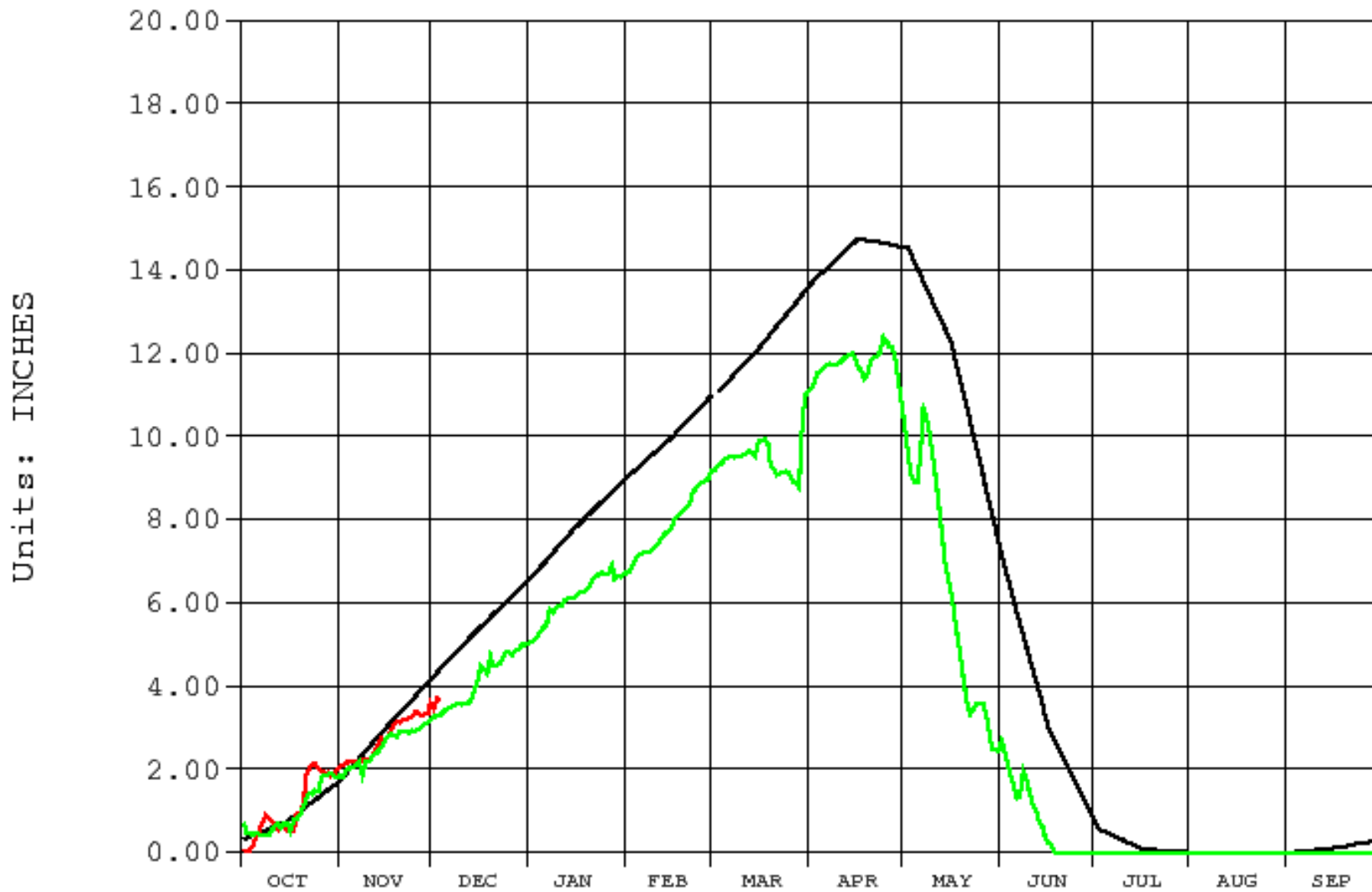
BASIN Data Site Name	ELEV. (Ft)	SNOW WATER EQUIVALENT			TOTAL PRECIPITATION		
		Current	Average	% Avg	Current	Average	% Avg

UPPER YELLOWSTONE RIVER BASIN							
BEARTOOTH LAKE	9360	8.7	7.0	124	8.5	5.9	144
BOX CANYON	6670	1.1	2.2	50	4.6	3.8	121
BRACKETT CREEK	7320	2.2	4.9	45	8.6	7.3	118
BURNT MTN CANYON	5880 7870	1.5 3.2	1.3 3.2	115 100	4.8 6.5	5.5 4.8	87 135
COLE CREEK	7850	1.7	5.4	31	4.2	5.9	71
EVENING STAR	9200	8.4	8.5	99	11.1	8.2	135
FISHER CREEK	9100	12.3	9.1	135	12.0	9.8	122
MONUMENT PEAK	8850	6.5	5.8	112	7.1	6.4	111
NORTHEAST ENTRANCE	7350	.8	2.5	32	5.1	4.0	128

PARKER PEAK	9400	7.6	6.7	113	8.2	5.5	149
PLACER BASIN	8830	5.1	5.6	91	6.2	6.5	95
PORCUPINE	6500	.8	1.3	62	3.3	4.0	83
SACAJAWEA	6550	1.6	1.9	84	8.9	6.6	135
SHOWER FALLS	8100	6.6	6.3	105	9.4	7.7	122
S FORK SHIELDS	8100	1.2	4.5	27	5.6	6.3	89
SYLVAN LAKE	8420	4.9	6.4	77	8.9	7.1	125
SYLVAN ROAD	7120	1.5	3.5	43	8.7	6.6	132
THUMB DIVIDE	7980	2.7	4.0	68	6.9	5.4	128
TWO OCEAN PLATEAU	9240	11.3	8.3	136	11.1	8.2	135
WHITE MILL	8700	8.1	6.6	123	8.8	7.7	114
WOLVERINE	7650	1.1	3.0	37	5.4	4.5	120
YOUNTS PEAK	8350	5.1	4.7	109	8.1	5.2	156
Basin wide percent of average				92			120
WIND RIVER BASIN							
BURROUGHS CREEK	8750	5.3	3.8	139	7.9	4.9	161
COLD SPRINGS	9630	.6	3.1	19	3.4	4.2	81
DEER PARK	9700	2.1	4.5	47	4.7	7.1	66
HOBBS PARK	10100	2.2	5.3	42	4.3	4.6	93
KIRWIN	9550	5.4	4.2	129	6.6	4.1	161
LITTLE WARM	9370	2.4	3.4	71	4.8	4.6	104
OWL CREEK	8975	1.5	1.9	79	3.4	2.2	155
SOUTH PASS	9040	1.0	4.9	20	3.6	6.0	60
ST. LAWRENCE ALT	8620	.7	2.7	26	2.2	3.5	63
TOGWOTEE PASS	9580	8.3	7.0	119	9.6	7.3	132
TOWNSEND CREEK	8700	.6	3.0	20	3.2	4.5	71
YOUNTS PEAK	8350	5.1	4.7	109	8.1	5.2	156
Basin wide percent of average				73			106
SHOSHONE BASIN							
BLACKWATER	9780	9.1	7.8	117	8.5	7.2	118
EVENING STAR	9200	8.4	8.5	99	11.1	8.2	135
MARQUETTE	8760	.0	3.8	0	4.1	4.1	100
SYLVAN LAKE	8420	4.9	6.4	77	8.9	7.1	125
SYLVAN ROAD	7120	1.5	3.5	43	8.7	6.6	132
YOUNTS PEAK	8350	5.1	4.7	109	8.1	5.2	156
Basin wide percent of average				84			129
BIGHORN BASIN							
BALD MTN.	9380	4.0	5.9	68	4.9	5.3	92
BEAR TRAP MEADOW	8200	1.3	1.6	81	2.9	3.4	85
BLACKWATER	9780	9.1	7.8	117	8.5	7.2	118
BONE SPRINGS DIV	9350	4.0	5.3	75	5.0	4.9	102
EVENING STAR	9200	8.4	8.5	99	11.1	8.2	135
GRAVE SPRINGS	8550	1.7	2.7	63	3.6	3.6	100
KIRWIN	9550	5.4	4.2	129	6.6	4.1	161
MARQUETTE	8760	.0	3.8	0	4.1	4.1	100
MIDDLE POWDER	7760	2.0	3.5	57	3.4	4.9	69
OWL CREEK	8975	1.5	1.9	79	3.4	2.2	155
POWDER RIVER PASS	9480	2.5	3.3	76	4.6	4.1	112
SHELL CREEK	9580	5.6	5.1	110	6.4	4.5	142
SYLVAN LAKE	8420	4.9	6.4	77	8.9	7.1	125
SYLVAN ROAD	7120	1.5	3.5	43	8.7	6.6	132
TIMBER CREEK	7950	.5	2.3	22	4.3	3.0	143
YOUNTS PEAK	8350	5.1	4.7	109	8.1	5.2	156
Basin wide percent of average				82			121

Archive Data From 1-OCT Through 30-SEP

Plotted 12/03/2007 13:47



BHR Bighorn Lake (Yellowtail), Bighorn River near Fort Smith, MT

SE_AVG Snow Water Equivalent Average (inches)

2008

SE Snow Water Equivalent (inches)

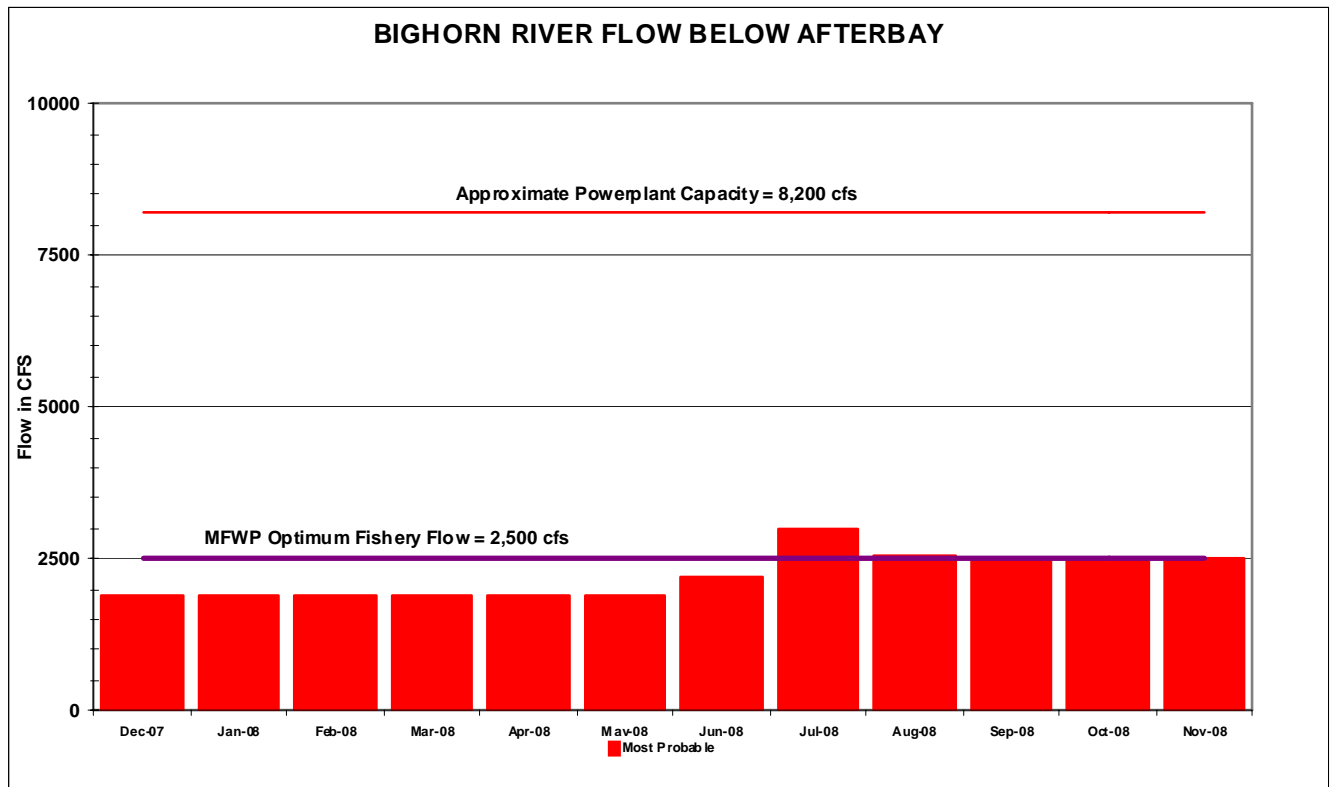
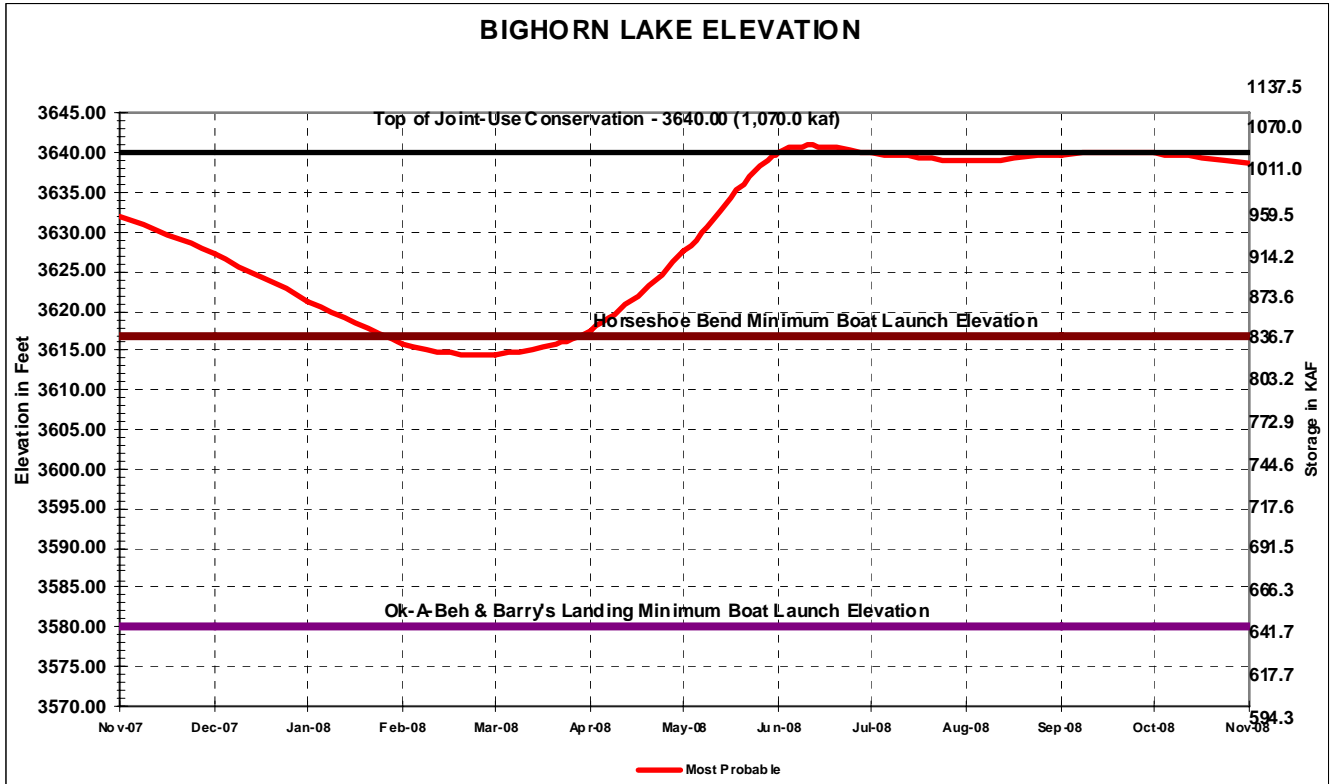
2008 2007

BHXAOP V1.12 Run: 10-Dec-2007 11:02
 Based on Most Probable Inflow Forecast

BIGHORN LAKE MONTHLY OPERATIONS

Bighorn Reservoir		Initial Cont Elev 3632.08 ft				980.1 kaf 3632.08 ft				Maximum Cont Elev 3657.00 ft				1328.4 kaf 3657.00 ft				Minimum Cont Elev 3547.00 ft				493.6 kaf 3547.00 ft	
		2007	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total								
Boysen Release	kaf	24.6	24.6	23.0	24.6	50.6	67.6	80.4	112.8	97.3	68.4	61.5	59.5	694.9									
Boysen Release	cfs	400	400	400	400	850	1099	1351	1835	1582	1150	1000	1000										
Buffalo Bill Riv Flo	kaf	9.2	9.2	8.6	9.2	43.5	84.1	105.8	113.7	78.0	75.5	24.9	20.8	582.5									
Buffalo Bill Riv Flo	cfs	150	150	150	150	731	1368	1778	1849	1269	1269	405	350										
Station Gain	kaf	31.8	29.8	32.9	68.9	37.3	53.2	84.1	-20.0	-8.4	30.0	69.4	47.6	456.6									
Monthly Inflow	kaf	65.6	63.6	64.5	102.7	131.4	204.9	270.3	206.5	166.9	173.9	155.8	127.9	1734.0									
Monthly Inflow	cfs	1067	1034	1121	1670	2208	3332	4543	3358	2714	2922	2534	2149										
Turbine Release	kaf	112.5	112.5	105.3	112.5	109.5	123.6	137.2	206.5	179.9	163.4	153.5	144.6	1661.0									
Bypass/Spill/Waste	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									
Total Release	kaf	112.5	112.5	105.3	112.5	109.5	123.6	137.2	206.5	179.9	163.4	153.5	144.6	1661.0									
Total Release	cfs	1830	1830	1831	1830	1840	2010	2306	3358	2926	2746	2496	2430										
Spring Flow	kaf	4.3	4.3	4.0	4.3	4.2	4.3	4.2	4.3	4.3	4.2	4.3	4.2	50.9									
Irrigation Reqmnt	kaf	0.0	0.0	0.0	0.0	0.6	11.1	10.0	27.7	26.8	18.8	4.1	0.0	99.1									
Afterbay Rels	kaf	116.8	116.8	109.3	116.8	113.7	127.9	141.4	210.8	184.2	167.6	157.8	148.8	1711.9									
Afterbay Rels	cfs	1900	1900	1900	1900	1911	2080	2376	3428	2996	2817	2566	2501										
River Release	kaf	116.8	116.8	109.3	116.8	113.1	116.8	131.4	183.1	157.4	148.8	153.7	148.8	1612.8									
River Release	cfs	1900	1900	1900	1900	1901	1900	2208	2978	2560	2501	2500	2501										
Min Release	kaf	116.8	116.8	109.3	116.8	113.1	116.8	113.1	153.7	157.4	148.8	153.7	148.8	1565.1									
End-Month Targets	kaf							1070.0	1070.0	1070.0	1070.0												
End-Month Content	kaf	933.2	884.3	843.5	833.7	855.6	936.9	1070.0	1070.0	1057.0	1067.5	1069.8	1053.1										
End-Month Elevation	ft	3627.17	3621.37	3615.96	3614.57	3617.62	3627.58	3640.00	3640.00	3638.95	3639.80	3639.98	3638.63										
Net Change Content	kaf	-46.9	-48.9	-40.8	-9.8	21.9	81.3	133.1	0.0	-13.0	10.5	2.3	-16.7	73.0									
Yellowtail Power	2007	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total									
Turbine Release	kaf	112.5	112.5	105.3	112.5	109.5	123.6	137.2	206.5	179.9	163.4	153.5	144.6	1661.0									
Generation	gwh	44.541	43.831	40.382	42.744	41.698	47.948	55.137	84.671	73.623	66.846	62.914	59.141	663.476									
End-Month Power Cap	mw	274.9	269.5	264.5	263.2	266.0	275.3	287.5	287.5	286.5	287.3	287.5	286.1										
% Max Gen		21	20	20	20	20	22	27	40	34	32	29	29										
Ave kwh/af		396	390	383	380	381	388	402	410	409	409	410	409	399									
Upstream Generation	gwh	3.339	3.091	3.600	3.893	16.701	28.136	29.239	33.545	32.191	28.725	13.416	10.993	206.869									
Total Generation	gwh	47.880	46.922	43.982	46.637	58.399	76.084	84.376	118.216	105.814	95.571	76.330	70.134	870.345									

BIGHORN LAKE



WATER YEAR 2008