

# RECLAMATION

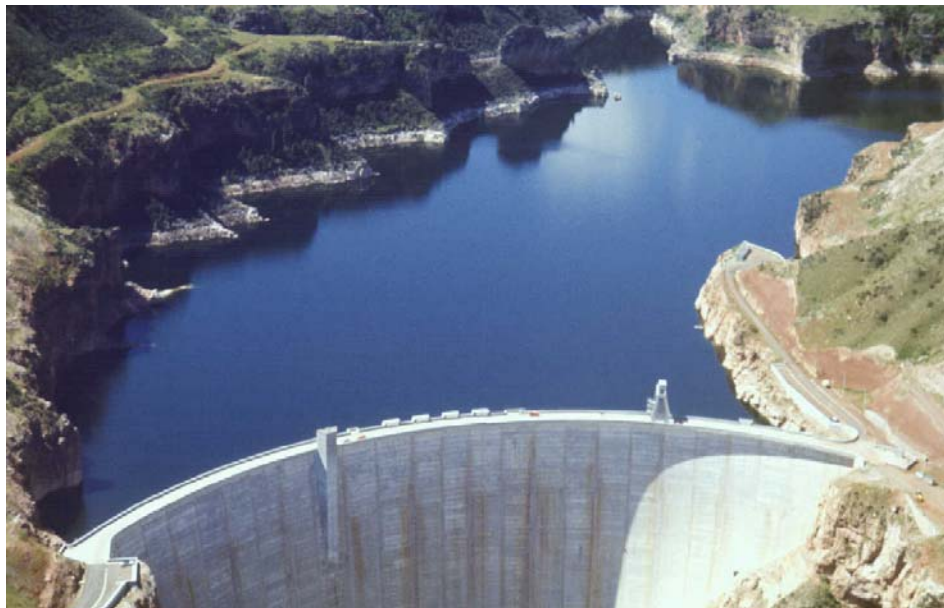
*Managing Water in the West*

January 10, 2007

Dear Customer:

Attached is the monthly water supply outlook and projected reservoir and river operating plans as prepared on January 10, 2007. Streamflows into Bighorn Lake continue to remain well below normal. Therefore, water users are advised to continue making plans to conserve the limited available water supply. 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  
 January 1, 2007

**Present Elevations & Storages:**

<u>Reservoir</u>	<u>Storage</u>	<u>Elevation</u>	<u>Percent of Normal</u>
Boysen	474,573	4708.67	---
Buffalo Bill	447,191	5367.01	---
Bighorn Lake	807,168	3610.62	88

**Actual Inflows (1,000 Acre-Feet):**

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
January	107.2	76
February	93.8	65
March	126.9	71
April	106.0	61
May	184.0	71
June	163.6	37
July	74.7	23
<b>April-July, 2006</b>	<b>528.2</b>	<b>44</b>
August	82.2	48
September	127.2	71
<b>WY-2006 Total</b>	<b>1,432.9</b>	<b>57</b>
October	125.6	66
November	98.7	61
December	82.5	56

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

<u>Month</u>	<u>Gains</u>	<u>Percent of Normal</u>
January	44.0	93
February	38.1	66
March	58.9	75
April	28.3	60
May	54.4	63
June	-12.6	---
July	-72.5	---
<b>April-July, 2006</b>	<b>-2.5</b>	<b>---</b>
August	-48.5	---
September	33.4	77
<b>WY-2006 Total</b>	<b>280.6</b>	<b>39</b>
October	73.5	97
November	56.9	88
December	39.6	84

**January Forecast of April-July Inflow (1,000 Acre-Feet):**

<u>Agency</u>	<u>Inflows</u>	<u>Percent of Normal</u>
<b>USBR</b>	<b>675</b>	<b>57</b>

**Snowpack Conditions:**

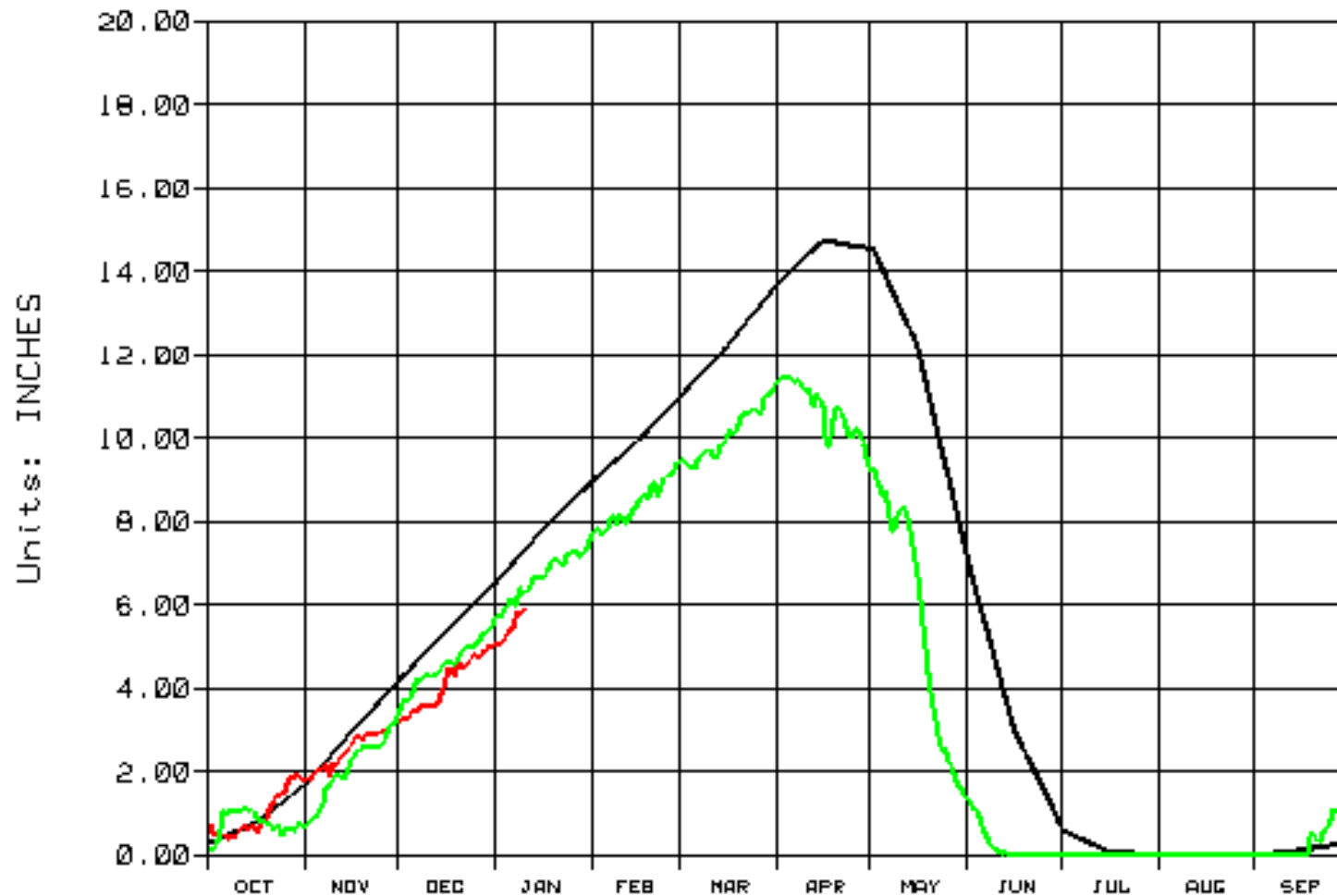
Based on Mountain Data from NRCS SNOTEL Sites  
 As of MONDAY: JANUARY 1, 2007

<u>BASIN</u> Data Site Name	<u>ELEV.</u> (Ft)	<u>SNOW WATER EQUIVALENT</u>			<u>TOTAL PRECIPITATION</u>		
		Current	Average	Avg %	Current	Average	Avg %
UPPER YELLOWSTONE RIVER BASIN							
BEARTOOTH LAKE	9275	9.0	11.5	78	9.3	10.0	93
BOX CANYON	6700	3.4	4.5	76	8.5	6.2	137

BRACKETT CREEK	7320	4.3	8.9	48	9.8	11.5	85
BURNT MTN	5880	.9	-M	*	7.4	-M	*
CANYON	8090	5.2	6.1	85	8.3	7.8	106
COLE CREEK	7850	4.5	7.5	60	7.0	8.1	86
EVENING STAR	9200	11.0	13.7	80	14.5	13.0	112
FISHER CREEK	9100	16.0	16.3	98	17.2	17.1	101
MONUMENT PEAK	8850	8.7	9.9	88	10.9	10.6	103
NORTHEAST ENTRANCE	7350	3.7	5.0	74	7.8	6.4	122
PARKER PEAK	9400	9.1	10.6	86	9.5	8.2	116
PLACER BASIN	8830	7.2	8.7	83	10.3	9.6	107
PORCUPINE	6500	1.1	2.8	39	6.9	5.9	117
SACAJAWEA	6550	2.9	5.1	57	10.7	-M	*
SHOWER FALLS	8100	9.0	10.1	89	12.2	11.5	106
S FORK SHIELDS	8100	3.1	7.5	41	10.1	9.5	106
SYLVAN LAKE	8420	7.4	10.5	70	12.2	11.0	111
SYLVAN ROAD	7120	4.3	6.2	69	9.7	10.1	96
THUMB DIVIDE	7980	5.6	7.6	74	7.8	9.1	86
TWO OCEAN PLATEAU	9240	11.9	13.5	88	11.7	13.5	87
WHITE MILL	8700	9.5	11.1	86	11.7	12.8	91
WOLVERINE	7650	4.5	5.8	78	5.9	7.0	84
YOUNTS PEAK	8350	5.1	7.9	65	7.5	8.2	91
Basin wide percent of average				77			101
WIND RIVER BASIN (WYOMING)							
BURROUGHS CREEK	8750	6.2	6.7	93	8.0	8.0	100
COLD SPRINGS	9630	2.7	4.6	59	4.0	5.7	70
DEER PARK	9700	4.4	6.7	66	7.2	10.9	66
HOBBS PARK	10100	4.2	7.6	55	4.5	6.4	70
KIRWIN	9550	4.5	5.9	76	5.6	5.9	95
LITTLE WARM	9370	4.1	5.3	77	5.3	6.7	79
OWL CREEK	8975	2.7	2.7	100	3.5	2.9	121
SOUTH PASS	9040	5.4	8.2	66	6.8	9.2	74
ST. LAWRENCE ALT	8620	1.9	3.8	50	3.3	4.6	72
TOGWOTEE PASS	9580	9.4	11.7	80	11.0	12.0	92
TOWNSEND CREEK	8700	2.8	4.4	64	5.3	6.0	88
YOUNTS PEAK	8350	5.1	7.9	65	7.5	8.2	91
Basin wide percent of average				71			83
SHOSHONE RIVER BASIN (WYOMING)							
BLACKWATER	9780	10.4	12.0	87	10.4	10.8	96
EVENING STAR	9200	11.0	13.7	80	14.5	13.0	112
MARQUETTE	8760	.7	5.0	14	3.7	5.3	70
SYLVAN LAKE	8420	7.4	10.5	70	12.2	11.0	111
SYLVAN ROAD	7120	4.3	6.2	69	9.7	10.1	96
YOUNTS PEAK	8350	5.1	7.9	65	7.5	8.2	91
Basin wide percent of average				70			99
BIGHORN RIVER BASIN (WYOMING)							
BALD MTN.	9380	8.8	9.7	91	7.1	8.5	84
BEAR TRAP MEADOW	8200	2.3	2.6	88	3.2	4.5	71
BLACKWATER	9780	10.4	12.0	87	10.4	10.8	96
BONE SPRINGS DIV	9350	8.1	7.8	104	6.7	7.3	92
EVENING STAR	9200	11.0	13.7	80	14.5	13.0	112
GRAVE SPRINGS	8550	2.8	4.0	70	3.4	4.9	69
KIRWIN	9550	4.5	5.9	76	5.6	5.9	95
MARQUETTE	8760	.7	5.0	14	3.7	5.3	70
MIDDLE POWDER	7760	3.8	5.5	69	4.4	6.8	65
OWL CREEK	8975	2.7	2.7	100	3.5	2.9	121
POWDER RIVER PASS	9480	3.8	5.3	72	4.7	6.0	78
SHELL CREEK	9580	7.5	7.3	103	5.5	6.7	82
SYLVAN LAKE	8420	7.4	10.5	70	12.2	11.0	111
SYLVAN ROAD	7120	4.3	6.2	69	9.7	10.1	96
TIMBER CREEK	7950	.7	3.0	23	3.4	3.7	92
YOUNTS PEAK	8350	5.1	7.9	65	7.5	8.2	91
Basin wide percent of average				77			91

Data From 1-OCT Through 30-SEP

Plotted 01/10/2007 09:36



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

— SEAVE Snow Water Equivalent Average (Inches)  
— SE Snow Water Equivalent (Inches)

2007

2007 2006



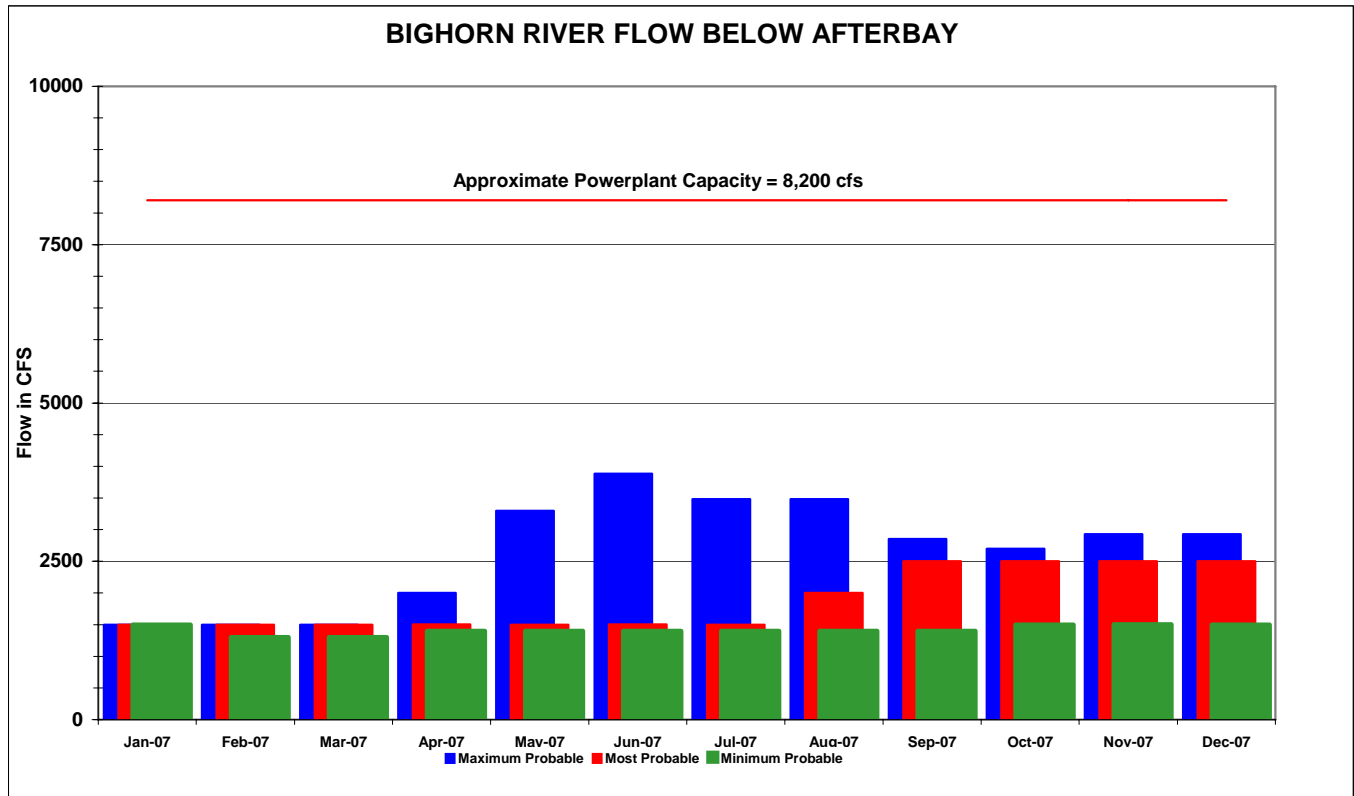
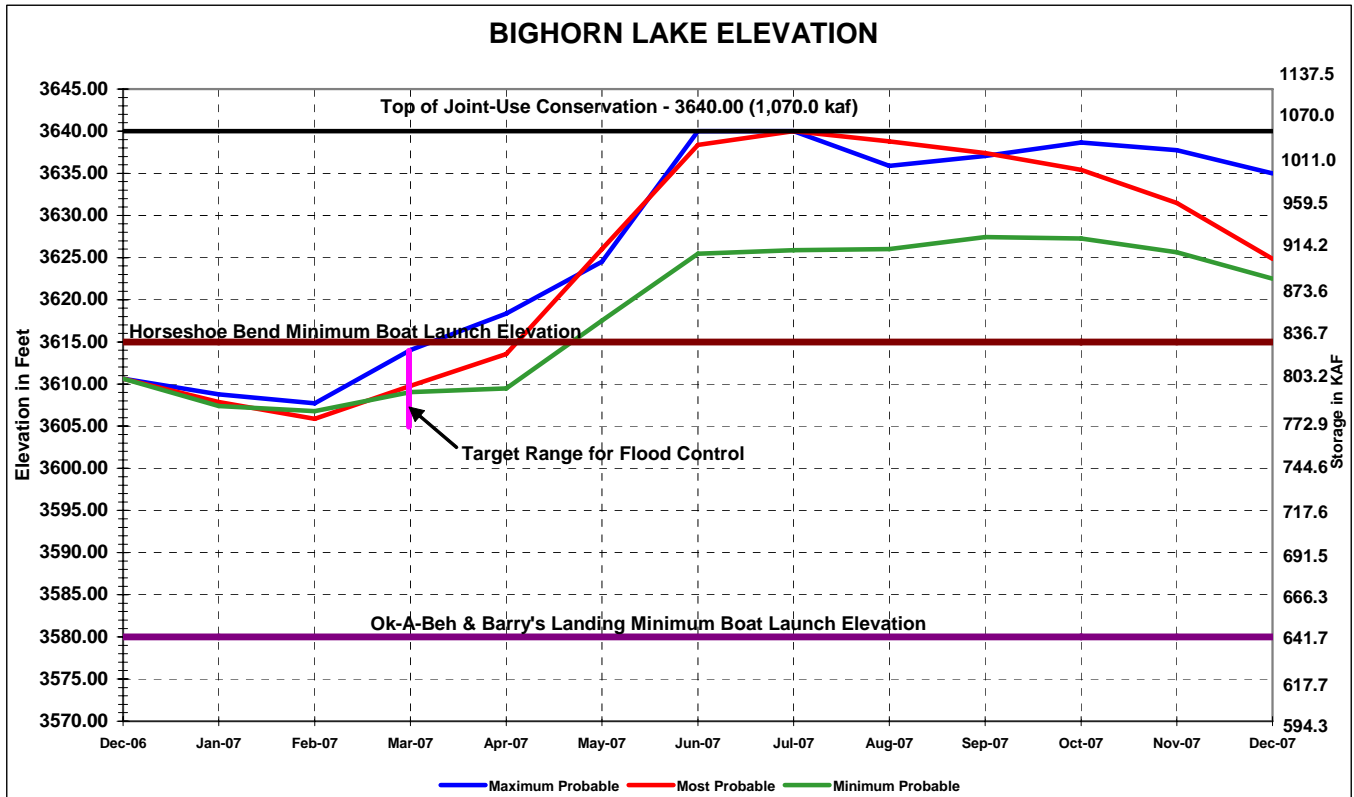


BHXAOP V1.12 Run: 10-Jan-2007 09:05  
 Based on Maximum Probable Inflow Forecast

BIGHORN LAKE MONTHLY OPERATIONS

Bighorn Reservoir		Initial Cont Elev 3610.62 ft				807.2 kaf				Maximum Cont Elev 3657.00 ft				1328.4 kaf				Minimum Cont Elev 3547.00 ft				493.6 kaf	
		2007	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total								
Boysen Release	kaf	30.8	27.8	30.8	50.6	70.7	104.2	107.7	94.4	68.4	70.8	68.5	70.8	795.5									
Boysen Release	cfs	501	501	501	850	1150	1751	1752	1535	1150	1151	1151	1151										
Buffalo Bill Riv Flo	kaf	12.3	11.1	12.3	40.5	83.8	107.7	97.8	78.0	75.5	24.9	20.8	21.5	586.2									
Buffalo Bill Riv Flo	cfs	200	200	200	681	1363	1810	1591	1269	1269	405	350	350										
Station Gain	kaf	33.1	34.1	85.7	55.5	104.0	196.5	32.1	14.9	53.9	84.7	70.1	52.0	816.6									
Monthly Inflow	kaf	76.2	73.0	128.8	146.6	258.5	408.4	237.6	187.3	197.8	180.4	159.4	144.3	2198.3									
Monthly Inflow	cfs	1239	1314	2095	2464	4204	6863	3864	3046	3324	2934	2679	2347										
Turbine Release	kaf	87.9	79.4	87.9	115.3	209.7	248.5	237.6	236.5	184.2	161.7	170.0	175.8	1994.5									
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	87.9	79.4	87.9	115.3	209.7	248.5	237.6	236.5	184.2	161.7	170.0	175.8	1994.5									
Total Release	cfs	1430	1430	1430	1938	3410	4176	3864	3846	3096	2630	2857	2859										
Spring Flow	kaf	4.3	3.9	4.3	4.2	4.3	4.2	4.3	4.3	4.2	4.3	4.2	4.3	50.8									
Irrigation Reqmnt	kaf	0.0	0.0	0.0	0.5	11.2	21.8	27.7	26.8	18.8	0.0	0.0	0.0	106.8									
Afterbay Rels	kaf	92.2	83.3	92.2	119.5	214.0	252.7	241.9	240.8	188.4	166.0	174.2	180.1	2045.3									
Afterbay Rels	cfs	1499	1500	1499	2008	3480	4247	3934	3916	3166	2700	2928	2929										
River Release	kaf	92.2	83.3	92.2	119.0	202.8	230.9	214.2	214.0	169.6	166.0	174.2	180.1	1938.5									
River Release	cfs	1499	1500	1499	2000	3298	3880	3484	3480	2850	2700	2928	2929										
Min Release	kaf	92.2	83.3	92.2	119.0	153.7	148.8	153.7	214.0	148.8	153.7	148.8	153.7	1661.9									
End-Month Targets	kaf						1070.0	1070.0															
End-Month Content	kaf	795.5	789.1	830.0	861.3	910.1	1070.0	1070.0	1020.8	1034.4	1053.1	1042.5	1011.0										
End-Month Elevation	ft	3608.76	3607.72	3614.04	3618.38	3624.52	3640.00	3640.00	3635.87	3637.06	3638.63	3637.75	3635.00										
Net Change Content	kaf	-11.7	-6.4	40.9	31.3	48.8	159.9	0.0	-49.2	13.6	18.7	-10.6	-31.5	203.8									
Yellowtail Power	2007	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total									
Turbine Release	kaf	87.9	79.4	87.9	115.3	209.7	248.5	237.6	236.5	184.2	161.7	170.0	175.8	1994.5									
Generation	gwh	32.926	29.637	33.031	43.923	81.048	99.447	97.422	96.269	74.578	65.788	69.249	71.159	794.477									
End-Month Power Cap	mw	257.9	257.0	262.7	266.7	272.4	287.5	287.5	283.4	284.6	286.1	285.2	282.5										
% Max Gen		15	15	15	21	38	48	45	45	36	31	33	33										
Ave kwh/af		375	373	376	381	386	400	410	407	405	407	407	405	398									
Upstream Generation	gwh	5.542	4.496	5.609	16.322	28.613	31.364	33.069	31.941	28.734	14.227	11.750	12.070	223.737									
Total Generation	gwh	38.468	34.133	38.640	60.245	109.661	130.811	130.491	128.210	103.312	80.015	80.999	83.229	1018.214									

# BIGHORN LAKE



WATER YEAR 2007