

RECLAMATION

Managing Water in the West

June 2, 2009

Dear Customer:

Attached are the monthly water supply outlook and projected reservoir and river operating plans as prepared on June 2, 2009. If you have any questions or concerns, please call me at (406) 247-7334.

Chuck Heinje
Reservoir and River Operations



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

SUN RIVER PROJECT OPERATIONS
 Water Supply Forecasts and Reservoir Operations
 June 1, 2009

Elevations & Storages:

<u>Reservoir</u>	<u>Storage</u>	<u>Percent of Normal</u>	<u>Percent of Full</u>
Gibson	84,372	99	87
Willow Creek	32,729	118	102
Pishkun	46,700	102	100

Actual Inflows to Gibson Reservoir (1,000 Acre-Feet):

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
(April-July 2008)	530.7	115
(WY 2008)	627.6	102
August	27.5	104
September	19.8	104
October	14.5	77
November	17.5	102
December	13.3	85
January	12.4	90
February	8.7	72
March	10.7	73
April	44.5	111
May	157.2	92

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

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
Reclamation	206	84
NRCS	192	75
Average	199	80

Mountain Snowpack Conditions:

Based on Mountain Data from NRCS SNOTEL Sites
As of Monday: June 1, 2009

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

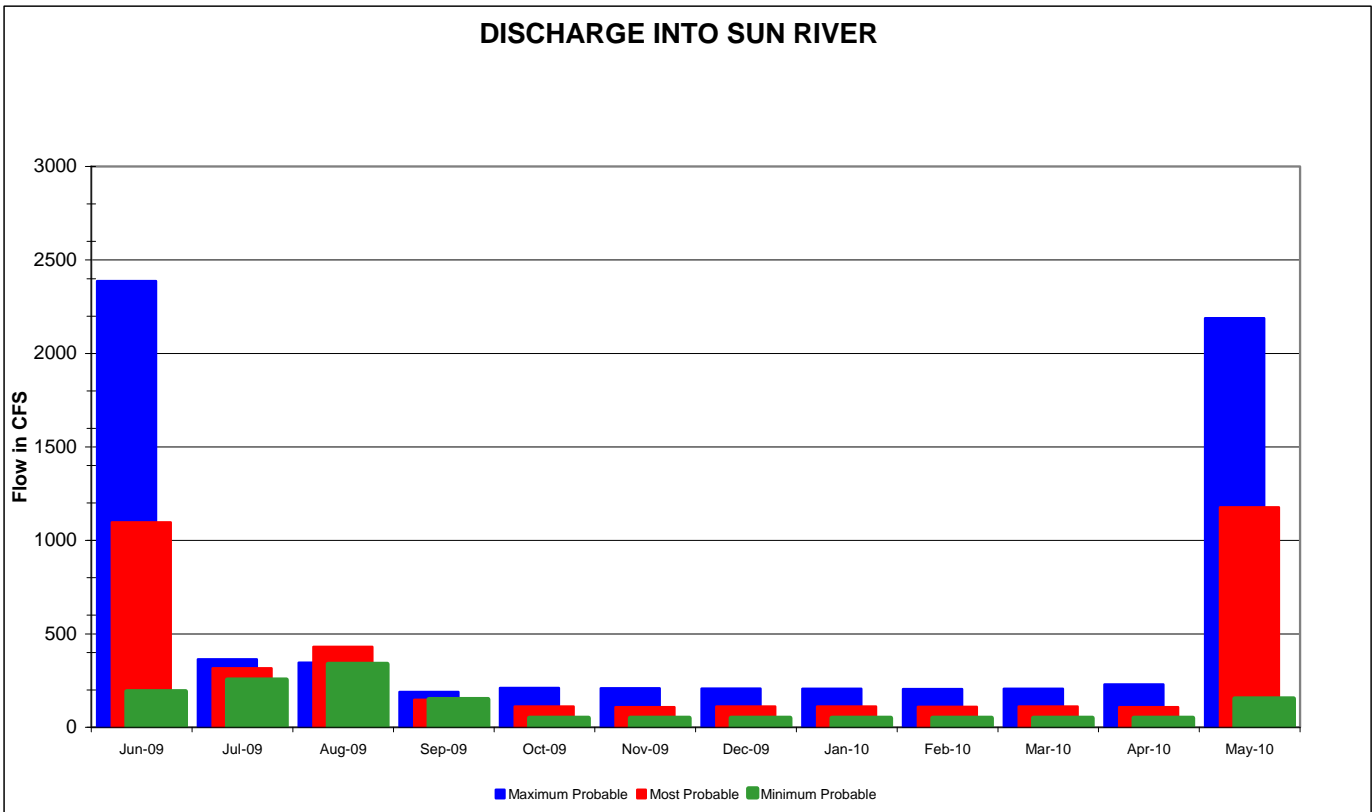
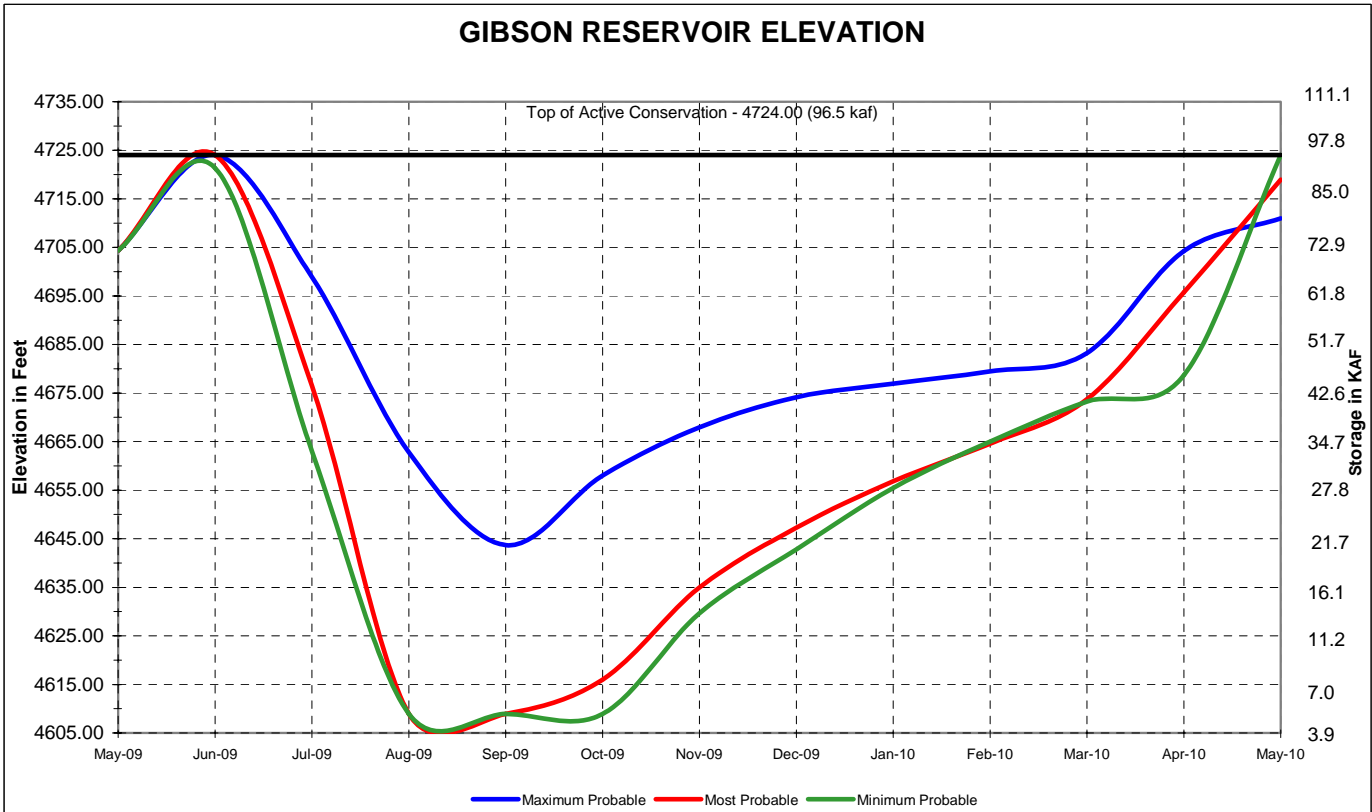
SUN, TETON AND MARIAS RIVER BASINS							
BADGER PASS	6900	20.9	23.4	89	37.8	45.9	82
DUPUYER CREEK	5750	.0	.5	0	17.4	22.2	78
MOUNT LOCKHART	6400	5.6	10.0	56	32.1	32.1	100
PIKE CREEK	5930	.0	7.8	0	32.3	39.7	81
WALDRON	5600	.0	.2	0	21.2	22.7	93
WOOD CREEK	5960	.0	.7	0	21.7	21.4	101

Basin wide percent of average				62	----- 88		

UPPER SUN RIVER MONTHLY OPERATIONS

Gibson Reservoir		Initial Cont Elev 4714.53 ft				84.4 kaf 4714.53 ft				Maximum Cont Elev 4724.02 ft				96.5 kaf 4724.02 ft				Minimum Cont Elev 4608.95 ft				5.0 kaf 4608.95 ft				Total
2009		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total								
Monthly Inflow	kaf	90.6	33.5	15.9	11.2	11.6	10.4	9.3	10.1	8.8	10.7	28.9	106.5					347.5								
Spillway Rels	cfs	0	0	0	0	0	0	0	0	0	0	0	0					0								
Total Release	kaf	82.0	93.2	44.2	11.2	11.6	2.0	2.3	2.4	2.2	4.3	24.2	55.8					335.4								
Total Release	cfs	1378	1516	719	188	189	34	37	39	40	70	407	908													
End-Month Content	kaf	93.0	33.3	5.0	5.0	5.0	13.4	20.4	28.1	34.7	41.1	45.8	96.5													
End-Month Elevation	ft	4721.31	4663.06	4608.95	4608.95	4608.95	4629.65	4642.82	4655.48	4665.00	4673.23	4678.66	4724.02													
End-Month Area	acre	1285.4	717.1	297.4	297.4	297.4	491.5	569.0	655.1	733.4	828.8	899.5	1296.2													
Net Change Content	kaf	8.6	-59.7	-28.3	0.0	0.0	8.4	7.0	7.7	6.6	6.4	4.7	50.7					12.1								
Sun River Div Dam		2009	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total							
Gain Below Gibson	cfs	145	49	21	17	16	17	13	11	11	13	35	138													
Rels to WFC	cfs	0	0	0	0	0	0	0	0	0	33	76	75													
Rels to PSC	cfs	1329	1309	402	54	155	0	0	0	0	0	316	818													
Total Diversion	kaf	79.1	80.5	24.7	3.2	9.5	0.0	0.0	0.0	0.0	2.0	23.3	54.9					277.2								
Total Diversion	cfs	1329	1309	402	54	155	0	0	0	0	33	392	893													
Flow Over Div Dam	kaf	11.5	15.7	20.8	9.0	3.1	3.0	3.1	3.1	2.8	3.1	3.0	9.4					87.6								
Flow Over Div Dam	cfs	193	255	338	151	50	50	50	50	50	50	50	153													
Min River Rels	kaf	6.5	6.8	6.1	3.0	3.1	3.0	3.1	3.1	2.8	3.1	3.0	3.1					46.7								
Min River Rels	cfs	110	110	100	50	50	50	50	50	50	50	50	50													
Willow Crk Operations		2009	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total							
		Initial Cont Elev 4142.04 ft				31.9 kaf 4142.04 ft				Maximum Cont Elev 4142.04 ft				31.9 kaf 4142.04 ft				Minimum Cont Elev 4093.42 ft				0.1 kaf 4093.42 ft				
Native Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0					0.2							
Total Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.9	3.9					9.6								
WCR Dam Rels	kaf	0.0	6.9	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					12.7								
End-Month Content	kaf	31.9	25.0	19.2	19.2	19.2	19.2	19.2	19.2	19.2	21.0	24.9	28.8													
End-Month Elevation	ft	4142.04	4137.13	4132.62	4132.62	4132.62	4132.62	4132.62	4132.62	4132.62	4134.09	4137.06	4139.88													
Net Change Content	kaf	0.0	-6.9	-5.8	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.9	3.9					-3.1								
Pishkun Operations		2009	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total							
		Initial Cont Elev 4370.00 ft				46.7 kaf 4370.00 ft				Maximum Cont Elev 4370.00 ft				46.7 kaf 4370.00 ft				Minimum Cont Elev 4341.99 ft				16.0 kaf 4341.99 ft				
Rels to PSC	kaf	79.1	80.5	24.7	3.2	9.5	0.0	0.0	0.0	0.0	0.0	18.8	50.3					266.1								
Total Inflow	kaf	64.9	68.4	21.0	2.7	8.1	0.0	0.0	0.0	0.0	0.0	16.0	40.2					221.3								
PSH Dam Rels	kaf	65.0	80.0	40.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	35.5					221.3								
End-Month Content	kaf	46.6	35.0	16.0	18.7	26.8	26.0	26.0	26.0	26.0	26.0	42.0	46.7													
End-Month Elevation	ft	4369.94	4361.78	4341.99	4345.57	4354.69	4353.88	4353.88	4353.88	4353.88	4353.88	4366.83	4370.00													
Net Change Content	kaf	-0.1	-11.6	-19.0	2.7	8.1	-0.8	0.0	0.0	0.0	0.0	16.0	4.7					0.0								
Greenfields Irrig		2009	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total							
GID Demand	kaf	65.0	80.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5					220.5								
GID Delivery	kaf	65.0	80.0	40.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	35.5					221.3								
River Blw Div Dam		2009	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					Total							
Flow Over Div Dam	cfs	193	255	338	151	50	50	50	50	50	50	50	153													
PSC Return Flow	cfs	192	168	54	7	20	0	0	0	0	0	37	132													
WCR Dam Rels	cfs	0	112	94	0	0	0	0	0	0	0	0	0													
Sr Demand Above	kaf	12.9	13.3	13.3	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7					50.2								
Sr Demand Below	kaf	5.4	5.5	5.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5					24.9								
Flow @ Ft. Shaw Div	cfs	185	236	207	101	52	59	63	65	67	75	136	182													
Ft Shaw Demand	kaf	8.0	11.4	9.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.0					40.7								
Ft Shaw Tot Deliv	kaf	8.0	11.4	9.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.0					40.7								
Flow blw Ft. Shaw	cfs	50	50	50	50	52	59	63	65	67	75	124	52													

GIBSON RESERVOIR



WATER YEAR 2009

Snowpack above Gibson

