

RECLAMATION

Managing Water in the West

September 3, 2008

Dear Customer:

Attached are the monthly water supply outlook and projected reservoir and river operating plans as prepared on September 3, 2008. If you have any questions or concerns, please call me at (406) 247-7320.

Jeremy Giovando
Reservoir and River Operations



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

MILK RIVER PROJECT OPERATIONS

Water Supply Forecasts and Reservoir Operations September 1, 2008

Storage (acre-feet):

		% Normal	% Full
Sherburne Reservoir:	38,400	163	58
Fresno Reservoir:	50,200	134	54
Nelson Reservoir (active):	34,300	123	56

Past Inflows: (1,000 acre-feet):

Month	Sherburne Reservoir		Fresno Reservoir	
	Inflow	% Normal	Inflow	% Normal
<i>April-Jul, 2008</i>	<i>115.8</i>	<i>111</i>	<i>176.2</i>	<i>107</i>
October	6.5	107	1.2	16
November	4.1	73	0.5	23
December	3.5	91	-0.1	n/a
January	2.0	70	-0.3	n/a
February	1.9	80	0.1	3
March	1.2	39	5.2	17
April	4.3	48	21.9	55
May	43.9	136	54.9	125
June	44.6	107	64.2	141
July	23.0	109	34.9	99
August	10.2	108	29.5	90

September Forecast of Natural Inflow (1,000 acre-feet):

Lake Sherburne

	Inflow	% Average
Reclamation	7.1	111
<u>NRCS</u>	<u>n/a</u>	<u>n/a</u>
Average	7.1	111

St. Mary River at Boundary	26.2	90
Milk River at EC	n/a	n/a
Beaver Creek near Havre	n/a	n/a

SNOTEL DATA:

Not Available until next season.

MILK RIVER BASIN MONTHLY OPERATIONS

Sherburne Reservoir		Initial Cont Elev 4769.73 ft				38.4 kaf ft				Maximum Cont Elev 4788.03 ft				66.2 kaf ft				Minimum Cont Elev 4731.73 ft				3.1 kaf ft	
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
Monthly Inflow	kaf	7.1	6.0	4.8	3.6	2.7	2.9	3.2	9.5	34.1	40.2	19.1	9.1	142.3									
Release	kaf	12.4	0.0	0.0	0.0	0.0	0.0	12.6	33.7	20.2	7.4	19.1	37.6	143.0									
Release	cfs	208	0	0	0	0	0	205	566	329	124	311	612										
Net Change Content	kaf	-5.3	6.0	4.8	3.6	2.7	2.9	-9.4	-24.2	13.9	32.8	0.0	-28.5	-0.7									
End-Month Content	kaf	33.1	39.1	43.9	47.5	50.2	53.1	43.7	19.5	33.4	66.2	66.2	37.7										
End-Month Elevation	ft	4765.38	4770.29	4773.85	4776.36	4778.16	4780.05	4773.71	4752.79	4765.64	4788.03	4788.03	4769.17										
St. Mary River		Initial Cont Elev 2563.54 ft				50.2 kaf ft				Maximum Cont Elev 2575.83 ft				97.0 kaf ft				0.5 kaf ft					
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
St. Mary Gain	kaf	19.1	19.5	13.4	8.9	7.4	6.0	8.7	24.5	94.3	134.1	79.0	31.8	446.7									
Nat. flow at bound.	kaf	26.2	25.5	18.2	12.5	10.1	8.9	11.9	34.0	128.4	174.3	98.1	40.9	589.0									
US share	kaf	6.6	6.4	9.1	6.3	5.1	4.5	6.0	8.5	53.9	77.2	38.8	10.2	232.6									
Can share	kaf	19.6	19.1	9.1	6.2	5.0	4.4	5.9	25.5	74.5	97.1	59.3	30.7	356.4									
Can del.	kaf	19.6	17.4	9.1	6.2	5.0	4.4	5.9	25.5	74.5	97.1	59.3	30.7	354.7									
Excess to Canada	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.1	0.0	6.0									
US share to Canada	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.1	0.0	6.4									
Max canal flow	cfs	600	0	0	0	0	0	400	650	650	640	630	630										
Desired canal div	cfs	200	0	0	0	0	0	250	550	650	640	630	630										
St. Mary Canal Div	cfs	200	0	0	0	0	0	250	550	651	640	629	629										
St. Mary Canal Div	kaf	11.9	0.0	0.0	0.0	0.0	0.0	15.4	32.7	40.0	38.1	38.7	38.7	215.5									
Fresno Reservoir		Initial Cont Elev 2562.45 ft				52.4 kaf ft				Maximum Cont Elev 2221.61 ft				79.0 kaf ft				18.0 kaf ft					
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
Milk R. runoff	kaf	4.6	4.5	2.9	1.9	1.2	2.2	13.7	16.6	10.2	5.2	0.6	0.0	63.6									
From St. Mary Canal	kaf	10.7	0.0	0.0	0.0	0.0	0.0	13.9	29.4	36.0	34.3	34.8	34.8	193.9									
Total inflow	kaf	15.3	4.5	2.9	1.9	1.2	2.2	27.6	46.0	46.2	39.5	35.4	34.8	257.5									
Release	kaf	20.4	2.6	2.6	2.6	2.6	2.4	4.4	29.2	38.4	60.3	66.9	42.6	275.0									
Release	cfs	343	42	44	42	42	43	72	491	625	1013	1088	693										
Project irr req	kaf	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	45.3	51.7	26.3	147.2									
Bowdoin WR req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5	0.0	0.0	0.0	3.5									
Ft Belknap irr req	kaf	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	13.0									
Nelson transfer	kaf	12.0	5.0	0.0	0.0	0.0	0.0	14.0	15.0	9.0	10.0	10.0	10.0	85.0									
Irrigation delivery	kaf	11.4	0.0	0.0	0.0	0.0	0.0	0.0	2.0	18.0	45.3	55.7	31.3	163.7									
Fresno bypass	kaf	0.0	2.0	2.6	2.6	2.6	2.4	0.0	23.0	13.4	0.0	-0.1	0.0	48.5									
Irrigation shortage	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									
Net Change Content	kaf	-5.1	1.9	0.3	-0.7	-1.4	-0.2	23.2	16.9	7.7	-20.8	-31.5	-7.8	-17.5									
End-Month Content	kaf	45.1	47.0	47.3	46.6	45.2	45.0	68.2	85.0	92.8	72.0	40.5	32.7										
End-Month Elevation	ft	2561.57	2562.33	2562.45	2562.18	2561.63	2561.55	2569.24	2573.34	2574.97	2570.24	2559.68	2556.15										
Nelson Reservoir		Initial Cont Elev 2217.48 ft				52.4 kaf ft				Maximum Cont Elev 2221.61 ft				79.0 kaf ft				18.0 kaf ft					
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
Nelson delivery	kaf	11.4	5.0	0.0	0.0	0.0	0.0	13.0	12.6	9.0	9.9	9.5	9.7	80.1									
Nelson Release	kaf	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	11.1	19.5	14.1	54.9									
Malta irr req	kaf	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	7.4	13.0	8.3	36.6									
Glasgow irr req	kaf	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.7	6.5	5.8	18.3									
Net Change Content	kaf	8.5	3.2	-1.8	-1.8	-1.8	-1.7	11.2	10.8	-1.9	-3.0	-11.8	-6.2	3.7									
End-Month Content	kaf	60.9	64.1	62.3	60.5	58.7	57.0	68.2	79.0	77.1	74.1	62.3	56.1										
End-Month Elevation	ft	2217.11	2217.95	2217.48	2217.00	2216.52	2216.05	2219.00	2221.61	2221.17	2220.46	2217.48	2215.80										

MILK RIVER BASIN MONTHLY OPERATIONS

Sherburne Reservoir		Initial Cont Elev 4769.73 ft				38.4 kaf				Maximum Cont Elev 4788.03 ft				66.2 kaf				Minimum Cont Elev 4731.73 ft				3.1 kaf	
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
Monthly Inflow	kaf	4.1	5.0	3.9	3.3	2.5	1.5	2.4	8.4	24.8	27.6	14.4	6.4	104.3									
Release	kaf	11.4	0.0	0.0	0.0	0.0	0.0	2.0	31.2	28.4	21.3	27.8	16.6	138.7									
Release	cfs	192	0	0	0	0	0	33	524	462	358	452	270										
Net Change Content	kaf	-7.3	5.0	3.9	3.3	2.5	1.5	0.4	-22.8	-3.6	6.3	-13.4	-10.2	-34.4									
End-Month Content	kaf	31.1	36.1	40.0	43.3	45.8	47.3	47.7	24.9	21.3	27.6	14.2	4.0										
End-Month Elevation	ft	4763.67	4767.88	4770.98	4773.43	4775.19	4776.22	4776.49	4758.08	4754.61	4760.57	4747.05	4733.33										

St. Mary River		Initial Cont Elev 2563.54 ft				50.2 kaf				Maximum Cont Elev 2575.83 ft				97.0 kaf				0.5 kaf	
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total					
St. Mary Gain	kaf	14.3	7.9	4.8	4.8	3.7	4.5	4.6	7.5	68.5	81.1	56.7	26.2	284.6					
Nat. flow at bound.	kaf	18.4	12.9	8.7	8.1	6.2	6.0	7.0	15.9	93.3	108.7	71.1	32.6	388.9					
US share	kaf	4.6	3.2	4.4	4.1	3.1	3.0	3.5	4.0	36.4	44.4	25.3	8.2	144.2					
Can share	kaf	13.8	9.7	4.3	4.0	3.1	3.0	3.5	11.9	56.9	64.3	45.8	24.4	244.7					
Can del.	kaf	13.8	7.9	4.3	4.0	3.1	3.0	3.5	11.9	56.9	64.3	45.8	24.4	242.9					
Excess to Canada	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					
US share to Canada	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					
Max canal flow	cfs	300	0	0	0	0	0	400	650	650	640	630	630						
Desired canal div	cfs	200	0	0	0	0	0	50	450	650	640	630	300						
St. Mary Canal Div	cfs	200	0	0	0	0	0	50	450	651	640	629	299						
St. Mary Canal Div	kaf	11.9	0.0	0.0	0.0	0.0	0.0	3.1	26.8	40.0	38.1	38.7	18.4	177.0					

Fresno Reservoir		Initial Cont Elev 2563.54 ft				50.2 kaf				Maximum Cont Elev 2575.83 ft				97.0 kaf				0.5 kaf	
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total					
Milk R. runoff	kaf	1.8	1.0	0.7	0.5	-0.6	0.1	2.0	3.7	0.7	0.8	0.0	0.0	10.7					
From St. Mary Canal	kaf	10.7	0.0	0.0	0.0	0.0	0.0	2.8	24.1	36.0	34.3	34.8	16.6	159.3					
Total inflow	kaf	12.5	1.0	0.7	0.5	-0.6	0.1	4.8	27.8	36.7	35.1	34.8	16.6	170.0					
Release	kaf	17.0	2.6	2.6	2.6	2.6	2.4	2.6	12.2	21.0	45.6	50.9	32.2	194.3					
Release	cfs	286	42	44	42	42	43	42	205	342	766	828	524						
Project irr req	kaf	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4	34.0	38.8	19.0	109.5					
Bowdoin WR req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.5					
Ft Belknap irr req	kaf	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	1.0	11.0					
Nelson transfer	kaf	9.0	3.0	0.0	0.0	0.0	0.0	6.0	12.0	7.0	5.0	5.0	10.0	57.0					
Irrigation delivery	kaf	9.3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	12.4	36.0	42.8	20.0	122.0					
Fresno bypass	kaf	0.0	0.3	2.6	2.6	2.6	2.4	0.9	0.0	0.0	0.0	0.0	0.0	11.4					
Irrigation shortage	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					
Net Change Content	kaf	-4.5	-1.6	-1.9	-2.1	-3.2	-2.3	2.2	15.6	15.7	-10.5	-16.1	-15.6	-24.3					
End-Month Content	kaf	45.7	44.1	42.2	40.1	36.9	34.6	36.8	52.4	68.1	57.6	41.5	25.9						
End-Month Elevation	ft	2561.82	2561.18	2560.40	2559.50	2558.08	2557.03	2558.04	2564.34	2569.23	2566.15	2560.11	2552.66						

Nelson Reservoir		Initial Cont Elev 2214.75 ft				52.4 kaf				Maximum Cont Elev 2221.61 ft				79.0 kaf				18.0 kaf	
2008		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total					
Nelson delivery	kaf	8.7	3.0	0.0	0.0	0.0	0.0	6.0	11.7	6.9	5.0	4.8	9.9	56.0					
Nelson Release	kaf	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	8.4	14.2	9.5	41.4					
Malta irr req	kaf	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.6	9.8	6.2	27.6					
Glasgow irr req	kaf	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.8	4.4	3.3	13.8					
Net Change Content	kaf	5.7	1.2	-1.8	-1.8	-1.8	-1.7	4.2	9.9	-3.0	-5.2	-11.2	-1.4	-6.9					
End-Month Content	kaf	58.1	59.3	57.5	55.7	53.9	52.2	56.4	66.3	63.3	58.1	46.9	45.5						
End-Month Elevation	ft	2216.35	2216.68	2216.19	2215.69	2215.18	2214.69	2215.88	2218.52	2217.74	2216.35	2213.08	2212.63						

MILK RIVER BASIN MONTHLY OPERATIONS

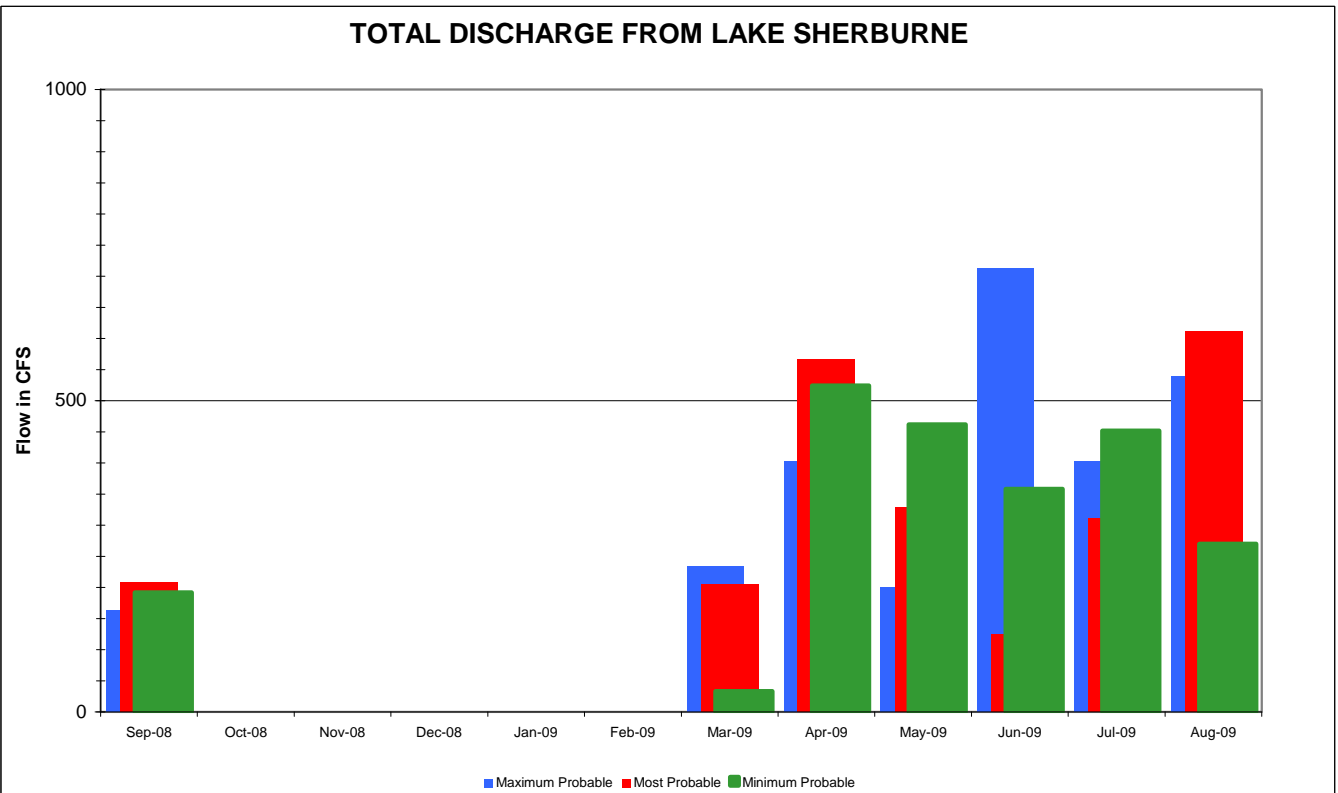
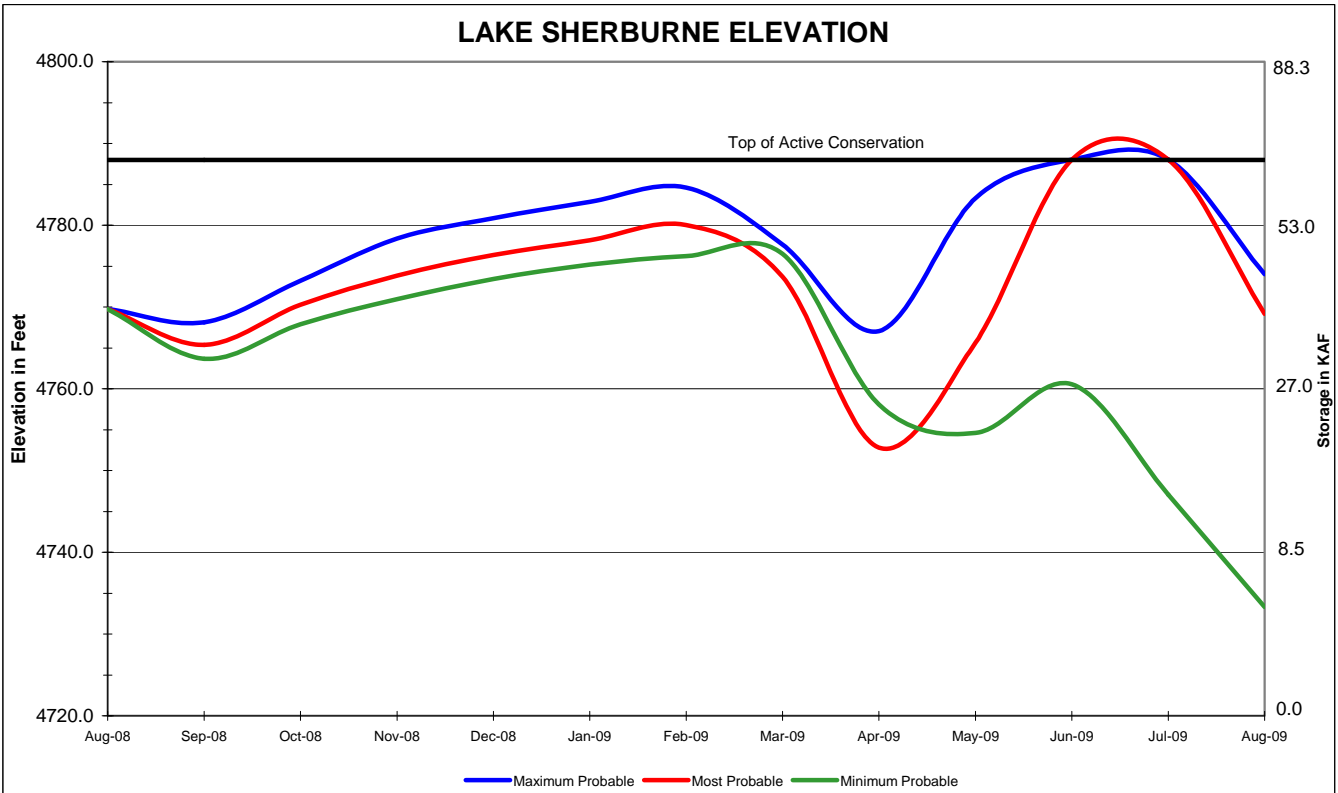
Sherburne Reservoir		Initial Cont Elev 4769.73 ft				38.4 kaf ft				Maximum Cont Elev 4788.03 ft				66.2 kaf ft				Minimum Cont Elev 4731.73 ft				3.1 kaf ft	
	2008	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total									
Monthly Inflow	kaf	7.7	6.6	7.5	3.9	3.2	2.8	3.3	9.7	35.5	50.3	24.7	11.1	166.3									
Release	kaf	9.7	0.0	0.0	0.0	0.0	0.0	14.3	24.0	12.3	42.4	24.7	33.2	160.6									
Release	cfs	163	0	0	0	0	0	233	403	200	713	402	540										
Net Change Content	kaf	-2.0	6.6	7.5	3.9	3.2	2.8	-11.0	-14.3	23.2	7.9	0.0	-22.1	5.7									
End-Month Content	kaf	36.4	43.0	50.5	54.4	57.6	60.4	49.4	35.1	58.3	66.2	66.2	44.1										
End-Month Elevation	ft	4768.12	4773.21	4778.36	4780.88	4782.88	4784.59	4777.63	4767.06	4783.32	4788.03	4788.03	4774.00										

	2008	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
St. Mary River														
St. Mary Gain	kaf	24.3	30.0	20.1	13.1	10.0	9.6	11.4	35.1	125.4	170.2	103.4	42.6	595.2
Nat. flow at bound.	kaf	32.0	36.6	27.6	17.0	13.2	12.4	14.7	44.8	160.9	220.5	128.1	53.7	761.5
US share	kaf	8.0	9.2	13.8	8.5	6.6	6.2	7.4	12.5	70.2	100.3	53.8	16.6	313.1
Can share	kaf	24.0	27.4	13.8	8.5	6.6	6.2	7.3	32.3	90.7	120.2	74.3	37.1	448.4
Can del.	kaf	22.1	27.1	13.8	8.5	6.6	6.2	7.3	32.3	90.7	120.2	74.3	37.1	446.2
Excess to Canada	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.9	15.1	0.0	56.0
US share to Canada	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.3	15.1	0.0	69.4
Max canal flow	cfs	600	0	0	0	0	0	400	650	650	640	630	630	
Desired canal div	cfs	200	0	0	0	0	0	300	450	650	640	630	630	
St. Mary Canal Div	cfs	200	0	0	0	0	0	299	450	651	640	629	629	
St. Mary Canal Div	kaf	11.9	0.0	0.0	0.0	0.0	0.0	18.4	26.8	40.0	38.1	38.7	38.7	212.6

Fresno Reservoir		Initial Cont Elev 2563.54 ft				50.2 kaf ft				Maximum Cont Elev 2575.83 ft				97.0 kaf ft				0.5 kaf ft	
	2008	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total					
Milk R. runoff	kaf	8.0	6.1	3.9	3.0	2.2	4.3	29.8	33.0	22.1	11.8	4.2	2.1	130.5					
From St. Mary Canal	kaf	10.7	0.0	0.0	0.0	0.0	0.0	16.6	24.1	36.0	34.3	34.8	34.8	191.3					
Total inflow	kaf	18.7	6.1	3.9	3.0	2.2	4.3	46.4	57.1	58.1	46.1	39.0	36.9	321.8					
Release	kaf	23.8	2.6	2.6	2.6	2.6	2.4	25.2	45.1	50.3	59.2	66.3	39.2	321.9					
Release	cfs	400	42	44	42	42	43	410	758	818	995	1078	638						
Project irr req	kaf	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	45.3	51.7	26.3	147.2					
Bowdoin WR req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5	0.0	0.0	0.0	3.5					
Ft Belknap irr req	kaf	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	13.0					
Nelson transfer	kaf	15.0	7.0	0.0	0.0	0.0	0.0	20.0	18.0	10.0	13.0	10.0	10.0	103.0					
Irrigation delivery	kaf	11.4	0.0	0.0	0.0	0.0	0.0	0.0	2.0	18.0	45.3	55.7	31.3	163.7					
Fresno bypass	kaf	0.0	1.8	2.6	2.6	2.6	2.4	18.1	55.9	26.2	0.0	0.0	0.0	112.2					
Irrigation shortage	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					
Net Change Content	kaf	-5.1	3.5	1.3	0.4	-0.4	1.9	21.2	12.0	7.8	-13.1	-27.3	-2.3	-0.1					
End-Month Content	kaf	45.1	48.6	49.9	50.3	49.9	51.8	73.0	85.0	92.8	79.7	52.4	50.1						
End-Month Elevation	ft	2561.59	2562.95	2563.43	2563.58	2563.43	2564.13	2570.50	2573.33	2574.98	2572.12	2564.33	2563.50						

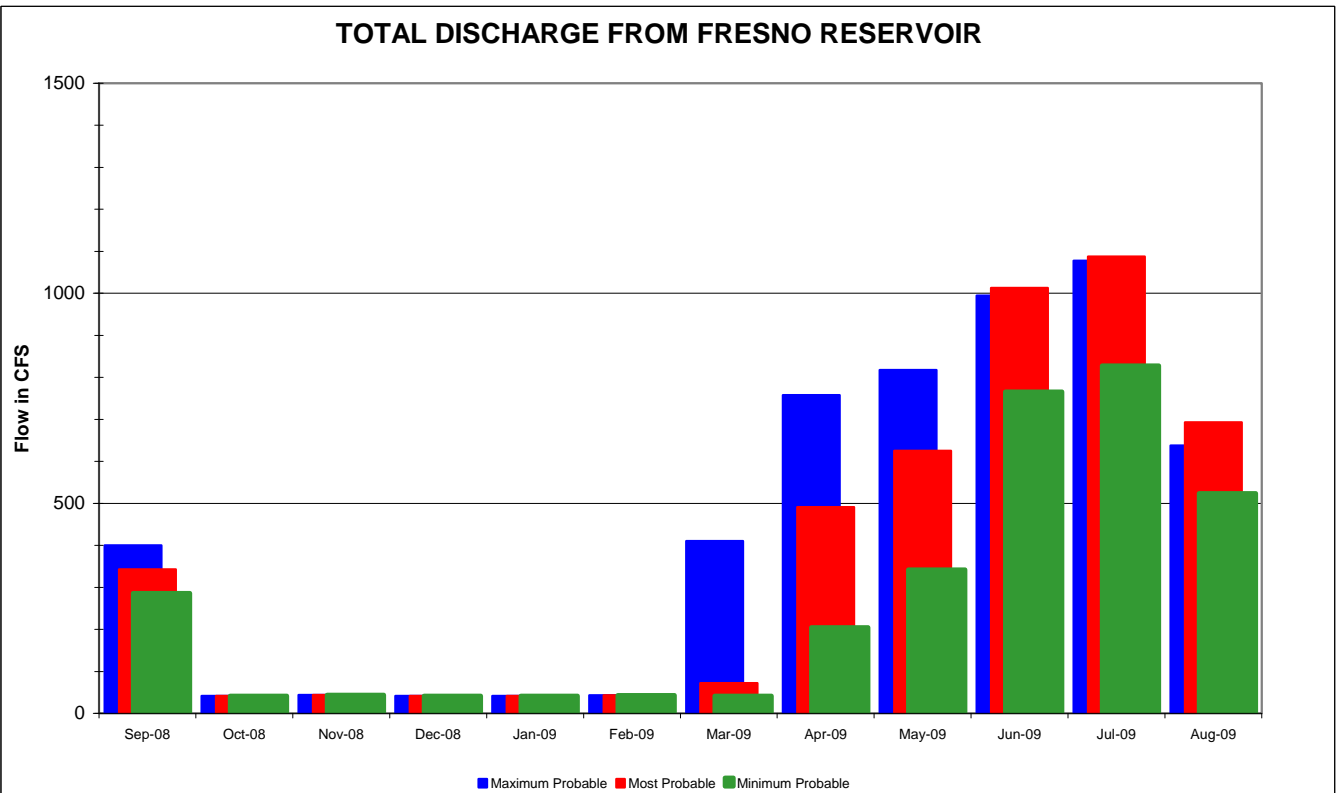
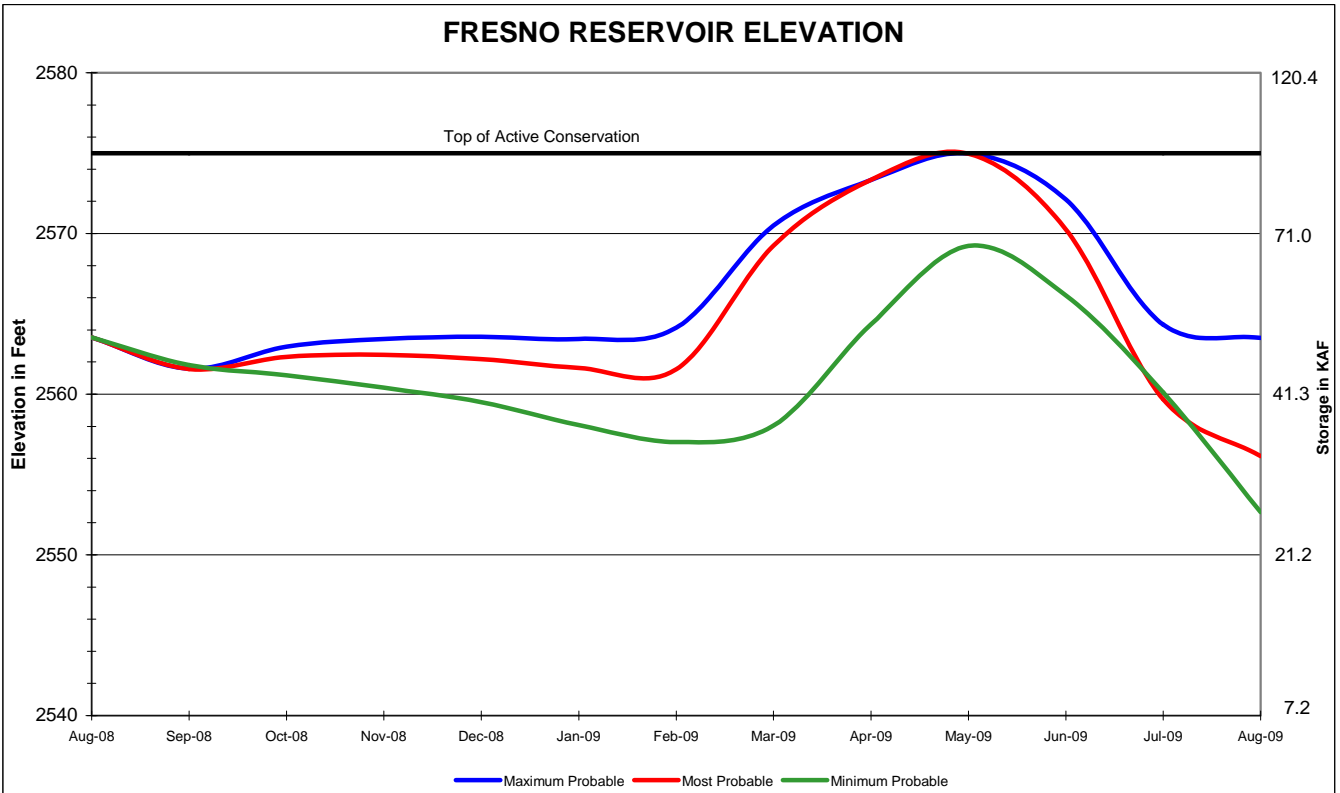
Nelson Reservoir		Initial Cont Elev 2214.75 ft				52.4 kaf ft				Maximum Cont Elev 2221.61 ft				79.0 kaf ft				18.0 kaf ft	
	2008	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total					
Nelson delivery	kaf	14.5	7.0	0.0	0.0	0.0	0.0	19.9	1.8	10.0	12.5	9.4	9.4	84.5					
Nelson Release	kaf	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	11.1	19.5	11.6	55.0					
Malta irr req	kaf	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	7.4	13.0	7.4	36.7					
Glasgow irr req	kaf	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.7	6.5	4.2	18.3					
Net Change Content	kaf	10.4	5.2	-1.8	-1.8	-1.8	-1.7	18.1	0.0	-2.3	-0.4	-11.9	-4.0	8.0					
End-Month Content	kaf	62.8	68.0	66.2	64.4	62.6	60.9	79.0	79.0	76.7	76.3	64.4	60.4						
End-Month Elevation	ft	2217.61	2218.95	2218.49	2218.03	2217.56	2217.11	2221.61	2221.61	2221.08	2220.98	2218.03	2216.98						

LAKE SHERBURNE



WATER YEAR 2008

FRESNO RESERVOIR



WATER YEAR 2008