

RECLAMATION

Managing Water in the West

May 4, 2009

Dear Customer:

Attached are the monthly water supply outlook and projected reservoir and river operating plans as prepared on May 4, 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

MILK RIVER PROJECT OPERATIONS

Water Supply Forecasts and Reservoir Operations May 4, 2009

Storage (acre-feet):

		% Normal	% Full
Sherburne Reservoir:	31,600	168	48
Fresno Reservoir:	85,600	121	92
Nelson Reservoir (active):	76,400	127	97

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	4.2	69	1.5	21
November	4.3	78	3.1	146
December	2.3	62	0.8	83
January	1.9	67	0.1	11
February	1.2	51	-0.3	N.A
March	1.2	41	13.5	44
April	8.3	92	37.6	95

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

Lake Sherburne

	Inflow	% Average
Reclamation	85	89
NRCS	83	88
Average	84.2	89

St. Mary River at Boundary	365.0	91
Milk River at EC	36.0	86
Beaver Creek near Havre	6.0	86

SNOTEL DATA:

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 FRIDAY: May 1, 2009

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

ST. MARY AND MILK RIVER BASINS

FLATTOP MTN.	6300	35.3	46.8	75	44.0	57.2	77
MANY GLACIER	4900	5.2	6.1	85	25.9	33.6	77
ROCKY BOY	4700	1.2	1.3	92	12.9	11.3	114

Basin wide percent of average

77

81

MILK RIVER BASIN MONTHLY OPERATIONS

Sherburne Reservoir		Initial Cont		31.6 kaf		Maximum Cont		66.2 kaf		Minimum Cont		3.1 kaf		Total	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Monthly Inflow	kaf	30.9	35.8	17.5	8.2	6.0	5.7	4.5	3.5	2.6	2.4	2.9	9.2	129.2	
Release	kaf	20.4	11.7	24.4	37.7	29.7	6.4	0.0	0.0	0.0	0.0	0.0	26.1	156.4	
Release	cfs	332	197	397	613	499	104	0	0	0	0	0	439		
Net Change Content	kaf	10.5	24.1	-6.9	-29.5	-23.7	-0.7	4.5	3.5	2.6	2.4	2.9	-16.9	-27.2	
End-Month Content	kaf	42.1	66.2	59.3	29.8	6.1	5.4	9.9	13.4	16.0	18.4	21.3	4.4		
End-Month Elevation	ft	4772.55	4788.03	4783.93	4762.53	4736.63	4735.58	4741.85	4746.13	4749.07	4751.64	4754.61	4733.99		
St. Mary River		2009	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
St. Mary Gain	kaf	89.4	124.7	66.7	28.4	18.3	15.9	11.0	7.8	6.4	5.5	7.5	18.2	399.8	
Nat. flow at bound.	kaf	120.3	160.5	84.2	36.6	24.3	21.6	15.5	11.3	9.0	7.9	10.4	27.4	529.0	
US share	kaf	49.9	70.3	31.8	9.2	6.1	5.4	7.8	5.7	4.5	4.0	5.2	6.9	206.8	
Can share	kaf	70.4	90.2	52.4	27.4	18.2	16.2	7.7	5.6	4.5	3.9	5.2	20.5	322.2	
Can del.	kaf	70.4	90.2	52.4	27.4	18.2	16.2	7.7	5.6	4.5	3.9	5.2	20.5	322.2	
Excess to Canada	kaf	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	
US share to Canada	kaf	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	
Max canal flow	cfs	650	640	630	630	500	300	0	0	0	0	0	0	650	
Desired canal div	cfs	640	640	630	630	500	100	0	0	0	0	0	0	400	
St. Mary Canal Div	cfs	641	640	629	629	501	99	0	0	0	0	0	0	400	
St. Mary Canal Div	kaf	39.4	38.1	38.7	38.7	29.8	6.1	0.0	0.0	0.0	0.0	0.0	23.8	214.6	
Fresno Reservoir		Initial Cont		85.6 kaf		Maximum Cont		97.0 kaf		Minimum Cont		0.5 kaf		Total	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Milk R. runoff	kaf	17.4	13.7	4.9	2.6	7.1	5.3	2.6	1.6	1.0	1.9	11.8	14.7	84.6	
From St. Mary Canal	kaf	35.5	34.3	34.8	34.8	26.8	5.5	0.0	0.0	0.0	0.0	0.0	21.4	193.1	
Total inflow	kaf	52.9	48.0	39.7	37.4	33.9	10.8	2.6	1.6	1.0	1.9	11.8	36.1	277.7	
Release	kaf	45.6	69.0	75.4	48.1	16.1	2.6	2.6	2.6	2.6	2.4	3.3	7.8	278.1	
Release	cfs	742	1160	1226	782	271	42	44	42	42	43	54	131		
Project irr req	kaf	19.0	52.1	59.4	30.3	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	169.3	
Bowdoin WR req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	
Ft Belknap irr req	kaf	0.0	0.0	4.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	
Nelson transfer	kaf	17.0	11.0	10.0	11.0	7.0	4.0	0.0	0.0	0.0	0.0	13.0	15.0	88.0	
Irrigation delivery	kaf	19.0	52.1	63.4	35.3	12.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	184.3	
Fresno bypass	kaf	12.9	0.0	-0.1	0.0	0.0	3.2	2.6	2.6	2.6	2.4	0.0	0.0	26.2	
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	7.3	-21.0	-35.7	-10.7	17.8	8.2	0.0	-1.0	-1.6	-0.5	8.5	28.4	-0.3	
End-Month Content	kaf	92.9	71.9	36.2	25.5	43.3	51.5	51.5	50.5	48.9	48.4	56.9	85.2		
End-Month Elevation	ft	2575.00	2570.23	2557.75	2552.45	2560.85	2564.02	2564.02	2563.66	2563.06	2562.87	2565.89	2573.38		
Nelson Reservoir		Initial Cont		76.4 kaf		Maximum Cont		79.0 kaf		Minimum Cont		18.0 kaf		Total	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Nelson delivery	kaf	14.9	10.9	9.5	10.7	6.5	4.0	0.0	0.0	0.0	0.0	12.0	14.0	82.5	
Nelson Release	kaf	10.5	12.8	22.5	16.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.2	
Malta irr req	kaf	8.3	8.5	15.0	9.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.1	
Glasgow irr req	kaf	2.2	4.3	7.5	6.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.1	
Net Change Content	kaf	2.6	-3.7	-14.8	-7.3	3.5	2.2	-1.8	-1.8	-1.8	-1.7	10.2	12.2	-2.2	
End-Month Content	kaf	79.0	75.3	60.5	53.2	56.7	58.9	57.1	55.3	53.5	51.8	62.0	74.2		
End-Month Elevation	ft	2221.61	2220.74	2217.00	2214.98	2215.97	2216.57	2216.08	2215.58	2215.07	2214.58	2217.40	2220.48		

MILK RIVER BASIN MONTHLY OPERATIONS

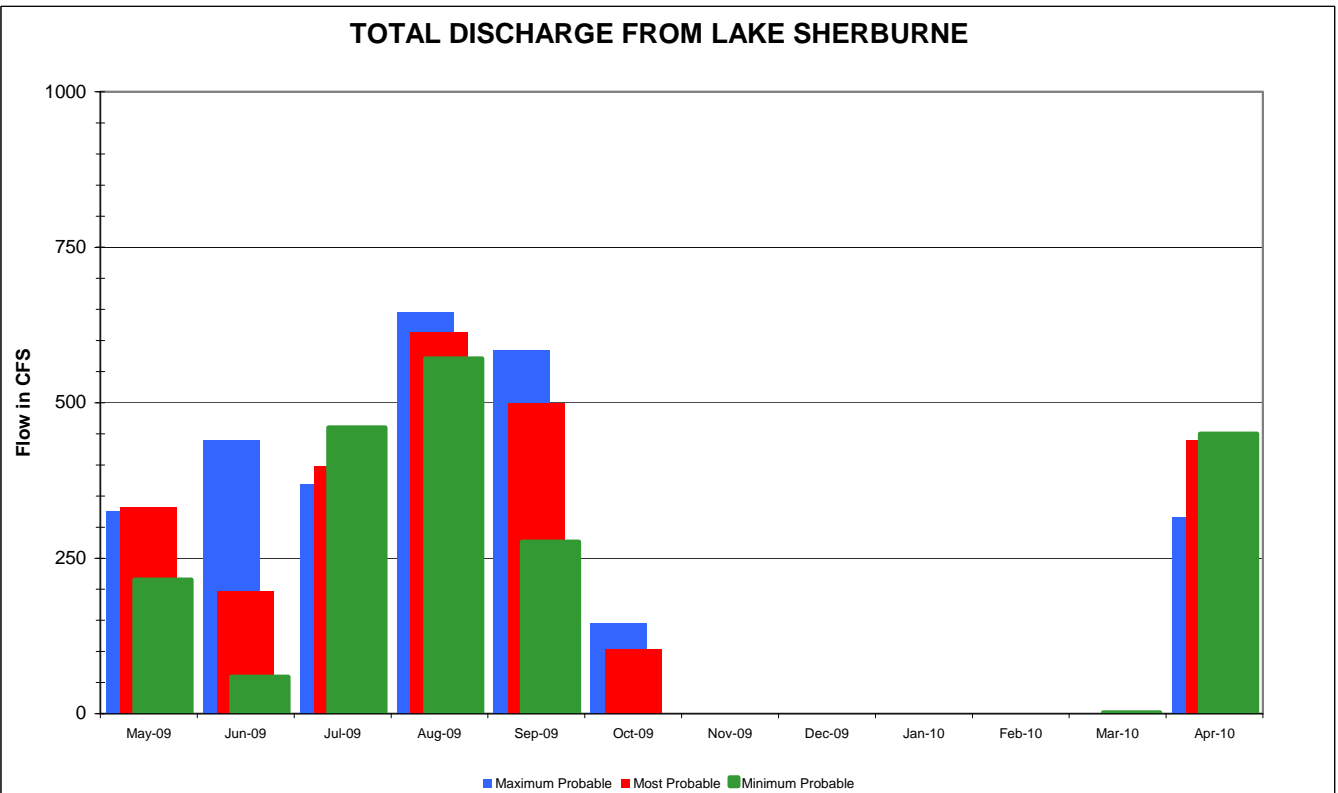
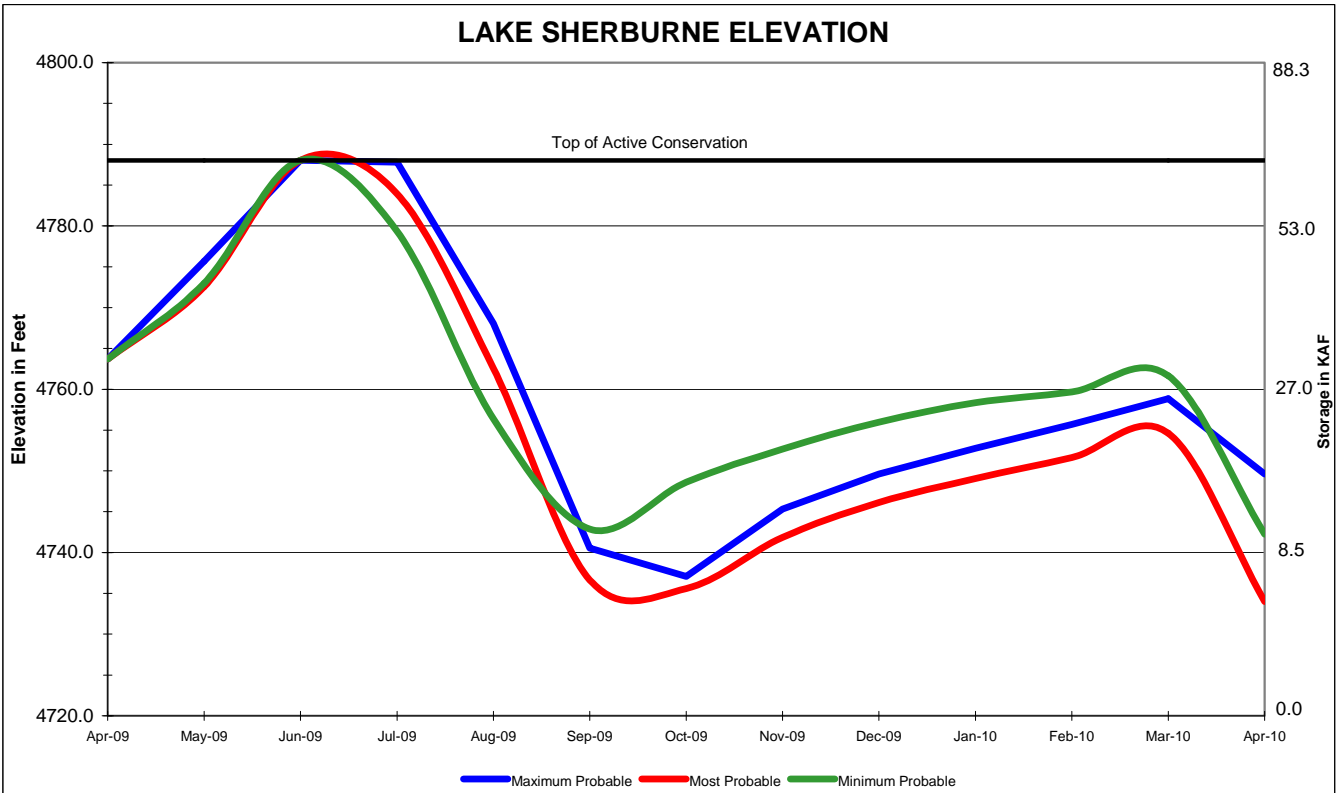
Sherburne Reservoir		Initial Cont Elev 4764.10 ft				31.6 kaf				Maximum Cont Elev 4788.03 ft				66.2 kaf				Minimum Cont Elev 4731.73 ft				3.1 kaf	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total									
Monthly Inflow	kaf	34.9	45.9	22.3	10.2	7.4	6.4	6.3	3.8	3.0	2.9	3.3	9.6	156.0									
Release	kaf	20.0	26.2	22.7	39.7	34.8	8.9	0.0	0.0	0.0	0.0	0.0	18.8	171.1									
Release	cfs	325	440	369	646	585	145	0	0	0	0	0	316										
Net Change Content	kaf	14.9	19.7	-0.4	-29.5	-27.4	-2.5	6.3	3.8	3.0	2.9	3.3	-9.2	-15.1									
End-Month Content	kaf	46.5	66.2	65.8	36.3	8.9	6.4	12.7	16.5	19.5	22.4	25.7	16.5										
End-Month Elevation	ft	4775.67	4788.03	4787.80	4768.04	4740.54	4737.07	4745.31	4749.61	4752.79	4755.69	4758.83	4749.61										

St. Mary River		Initial Cont Elev 2573.46 ft				85.6 kaf				Maximum Cont Elev 2575.83 ft				97.0 kaf				0.5 kaf	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total					
St. Mary Gain	kaf	95.4	131.1	77.5	31.4	19.2	19.7	12.5	9.0	7.3	6.2	8.8	25.0	443.1					
Nat. flow at bound.	kaf	130.3	177.0	99.8	41.6	26.6	26.1	18.8	12.8	10.3	9.1	12.1	34.6	599.1					
US share	kaf	54.9	78.6	39.6	10.5	6.7	6.5	9.4	6.4	5.2	4.6	6.1	8.7	237.2					
Can share	kaf	75.4	98.4	60.2	31.1	19.9	19.6	9.4	6.4	5.1	4.5	6.0	25.9	361.9					
Can del.	kaf	75.4	98.4	60.2	31.1	18.3	19.4	9.4	6.4	5.1	4.5	6.0	25.9	360.1					
Excess to Canada	kaf	0.0	20.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8					
US share to Canada	kaf	0.0	20.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8					
Max canal flow	cfs	650	650	650	650	600	200	0	0	0	0	0	650						
Desired canal div	cfs	650	650	650	650	600	150	0	0	0	0	0	300						
St. Mary Canal Div	cfs	651	650	651	651	600	150	0	0	0	0	0	301						
St. Mary Canal Div	kaf	40.0	38.7	40.0	40.0	35.7	9.2	0.0	0.0	0.0	0.0	0.0	17.9	221.5					

Fresno Reservoir		Initial Cont Elev 2573.46 ft				85.6 kaf				Maximum Cont Elev 2575.83 ft				97.0 kaf				0.5 kaf	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total					
Milk R. runoff	kaf	25.0	19.7	9.3	4.7	9.0	8.0	3.4	2.4	1.7	3.3	21.9	25.0	133.4					
From St. Mary Canal	kaf	36.0	34.8	36.0	36.0	32.1	8.3	0.0	0.0	0.0	0.0	0.0	16.1	199.3					
Total inflow	kaf	61.0	54.5	45.3	40.7	41.1	16.3	3.4	2.4	1.7	3.3	21.9	41.1	332.7					
Release	kaf	53.7	79.2	90.0	52.4	21.2	2.6	2.6	2.6	2.6	2.4	2.6	21.4	333.3					
Release	cfs	873	1331	1464	852	356	42	44	42	42	43	42	360						
Project irr req	kaf	22.7	62.3	71.0	36.2	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.3					
Bowdoin WR req	kaf	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.5					
Ft Belknap irr req	kaf	0.0	0.0	4.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0					
Nelson transfer	kaf	16.0	14.0	12.0	12.0	10.0	9.0	0.0	0.0	0.0	0.0	10.0	18.0	101.0					
Irrigation delivery	kaf	24.2	62.3	75.0	41.2	14.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	218.8					
Fresno bypass	kaf	16.0	0.0	0.0	0.0	-0.1	0.0	2.6	2.6	2.6	2.4	6.5	14.2	46.8					
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	7.3	-24.7	-44.7	-11.7	19.9	13.7	0.8	-0.2	-0.9	0.9	19.3	19.7	-0.6					
End-Month Content	kaf	92.9	68.2	23.5	11.8	31.7	45.4	46.2	46.0	45.1	46.0	65.3	85.0						
End-Month Elevation	ft	2575.00	2569.25	2551.35	2543.79	2555.63	2561.70	2562.02	2561.94	2561.59	2561.94	2568.46	2573.33						

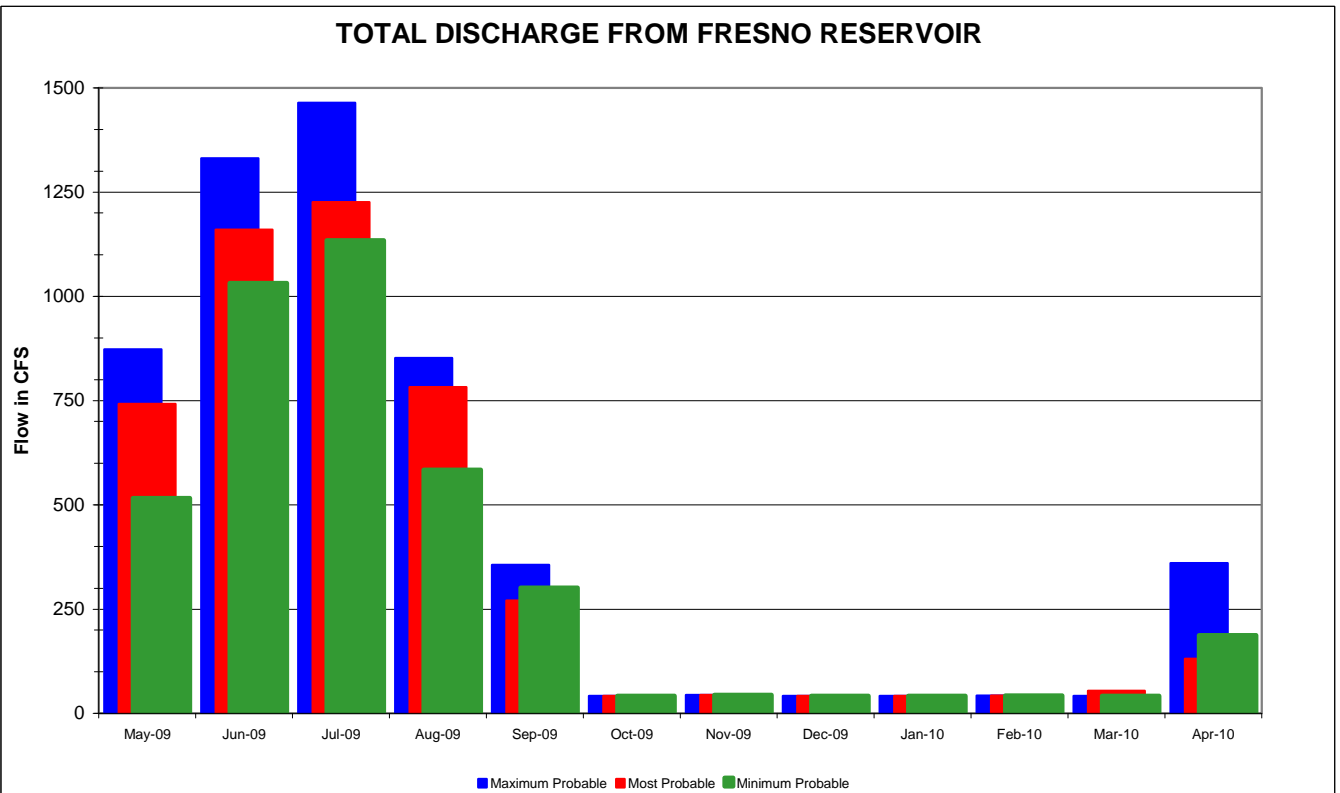
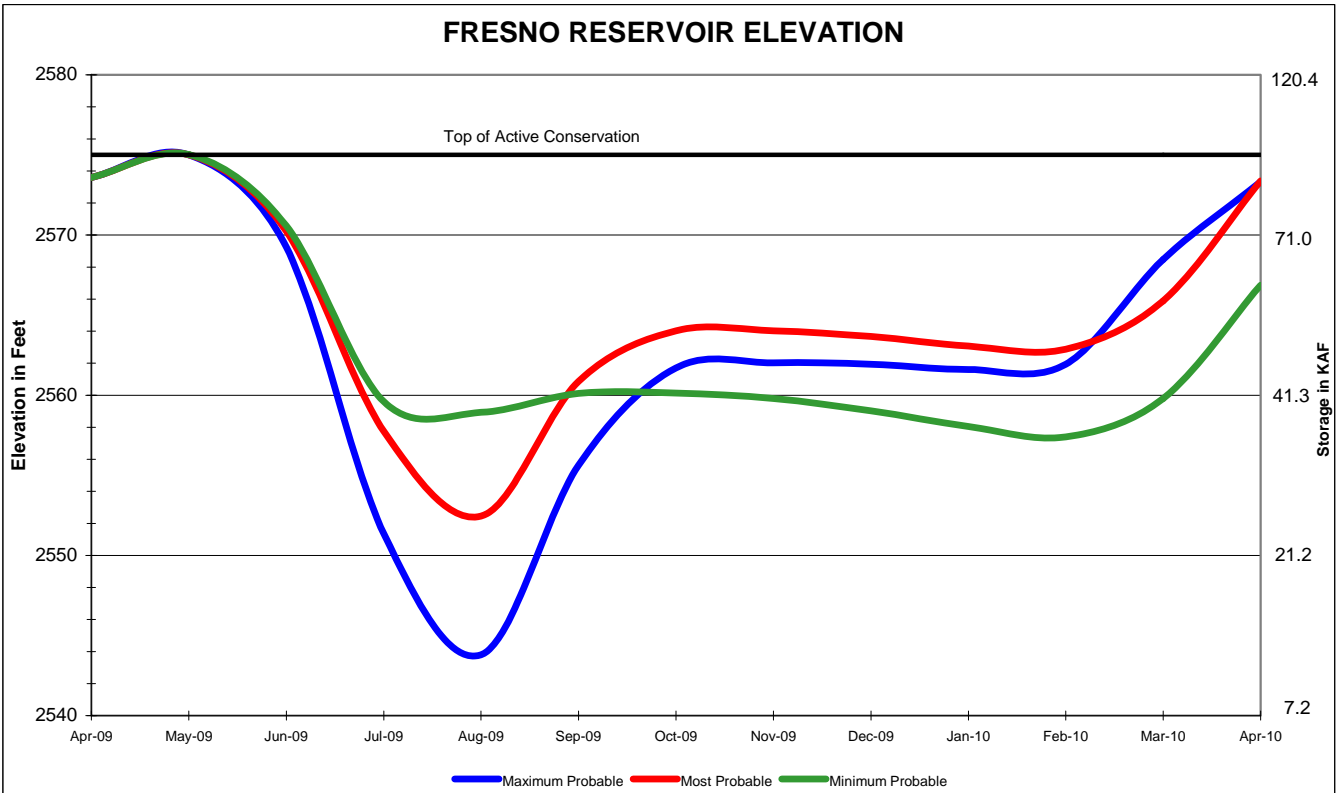
Nelson Reservoir		Initial Cont Elev 2221.00 ft				76.4 kaf				Maximum Cont Elev 2221.61 ft				79.0 kaf				18.0 kaf	
2009		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total					
Nelson delivery	kaf	16.0	13.5	11.4	11.3	9.5	8.6	0.0	0.0	0.0	0.0	10.0	18.0	98.3					
Nelson Release	kaf	14.4	15.3	26.9	15.9	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.7					
Malta irr req	kaf	9.9	10.2	17.9	10.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.5					
Glasgow irr req	kaf	4.5	5.1	9.0	5.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.2					
Net Change Content	kaf	-0.2	-3.6	-17.3	-6.4	4.5	6.8	-1.8	-1.8	-1.8	-1.7	8.2	16.2	1.1					
End-Month Content	kaf	76.2	72.6	55.3	48.9	53.4	60.2	58.4	56.6	54.8	53.1	61.3	77.5						
End-Month Elevation	ft	2220.96	2220.09	2215.58	2213.71	2215.04	2216.92	2216.43	2215.94	2215.44	2214.95	2217.22	2221.26						

LAKE SHERBURNE



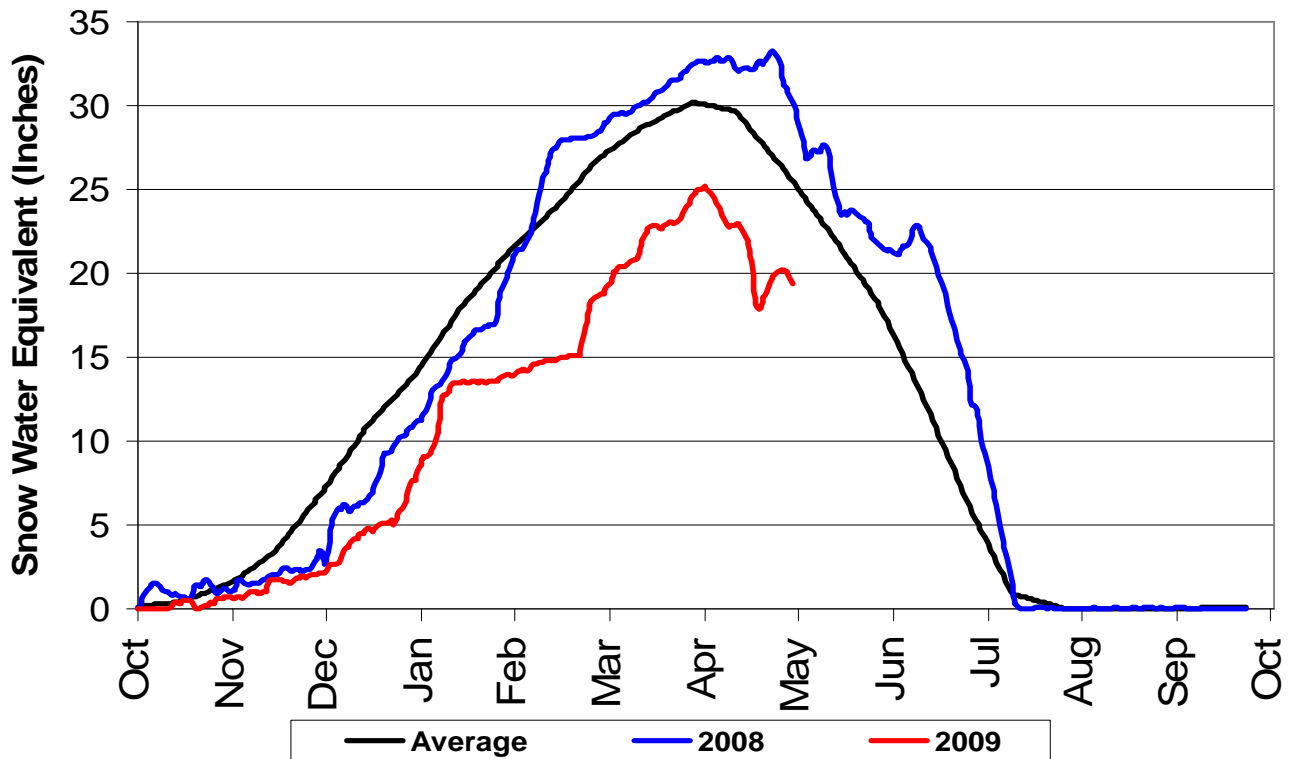
WATER YEAR 2009

FRESNO RESERVOIR



WATER YEAR 2009

Snowpack above Lake Sherburne



Snowpack above Fresno

