RECLAMATION
Managing Water in the West

January 10, 2017

Dear Customer:

Attached are the Monthly Water Supply Outlook and projected reservoir and river operating plans for Clark Canyon Reservoir. Inflow for the April through July snowmelt runoff period is forecasted at 69,100 acre-feet, or 93 percent of the 30-year average. If you have any questions or concerns regarding the plans, please contact me at 406-247-7320 or Clayton Jordan at 406-247-7334.

Stephanie Micek
Reservoir and River Operations

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

CLARK CANYON RESERVOIR OPERATIONS

Water Supply Forecasts and Reservoir Operations
January 1, 2017

Reservoir	Elevation	Storage (af)	% Average	% Full
Lima Reservoir:	6571.43	33,532	94	39
Clark Canyon Reservoir:	5526.61	87,939	88	50

*percent of average is based on past 30 years

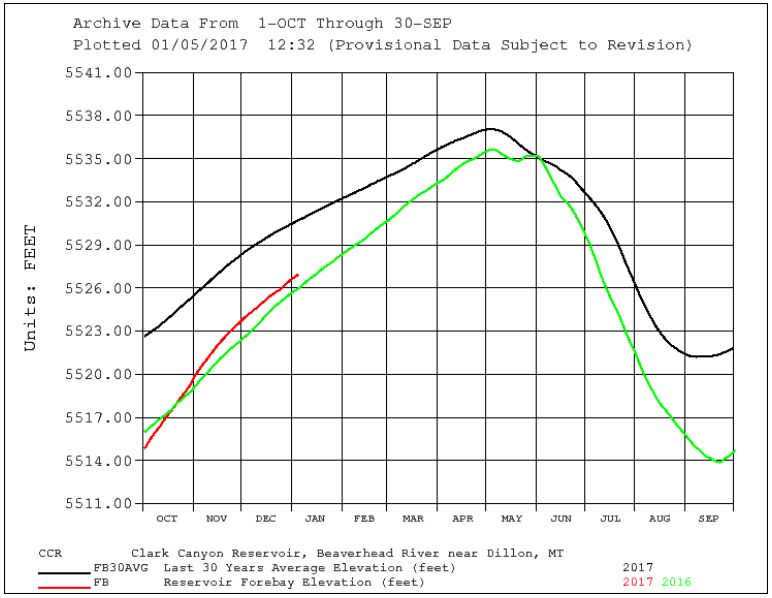
Actual Inflows (1,000 Acre-Feet):

Month	Inflow	Percent of Average
Water Year 2017		
October	16.2	94
November	15.2	87
December	12.4	83
Water Year 2016	**142.9**	**73**
October	10.2	59
November	12.2	69
December	12.7	84
January	11.5	88
February	11.1	94
March	12.6	84
April	11.3	80
May	12.6	85
June	10.5	41
July	14.9	69
August	11.2	74
September	12.1	80
April – July	*49.3*	*64*

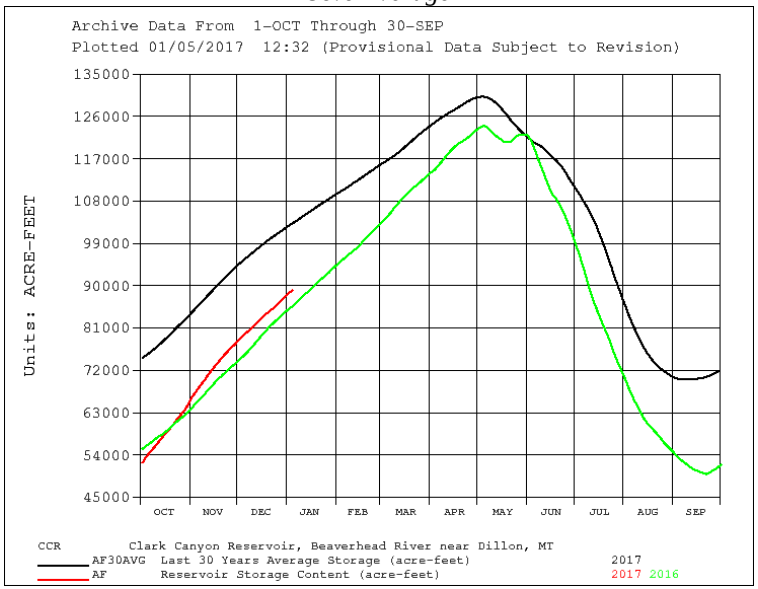
WY 2017 April through July Forecasted Inflow (1,000 Acre-Feet):

Agency	Inflow	Percent of Average
USACE	60.7	82
NRCS	77.0	104
Reclamation	69.6	94
Average	***69.1***	***93***

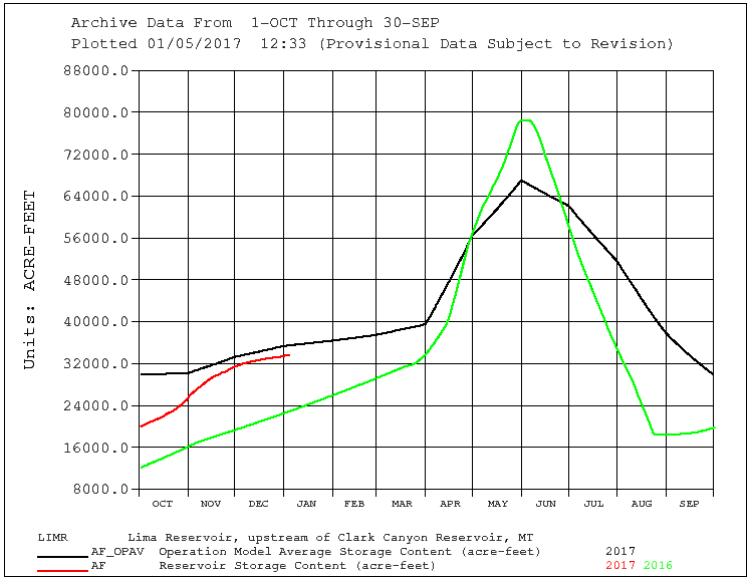
Clark Canyon Reservoir
Elevation Graph
51% Full



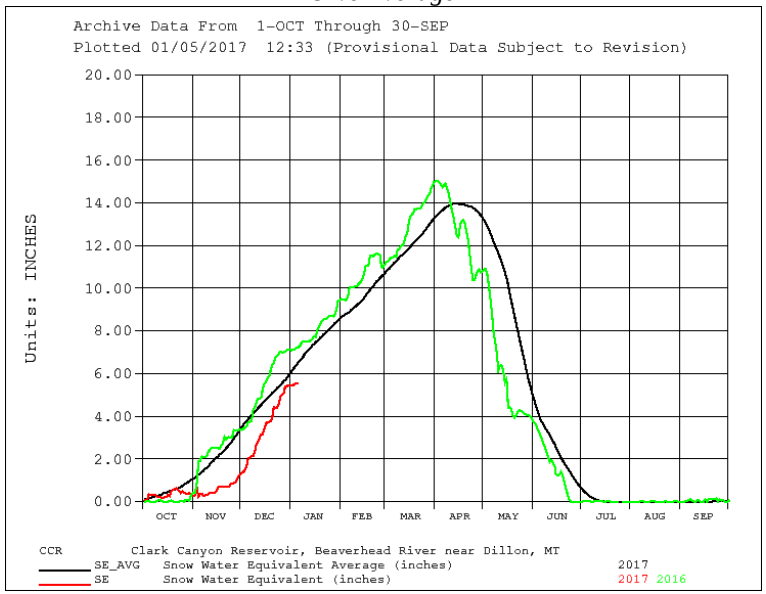
Clark Canyon Reservoir
Storage Graph
86% Average



Lima Reservoir
Storage Graph
39% Full



Clark Canyon Reservoir
Snow Graph
87% Average



CLARK CANYON RESERVOIR MONTHLY OPERATIONS

Based on ***Most Probable*** Inflow Forecast with Full Allotments in WY 2017

Clark Canyon Reservoir — Initial Cont 87.9 kaf, Elev 5526.60 ft — Maximum Cont 310.1 kaf, Elev 5569.57 ft — Minimum Cont 10.0 kaf, Elev 5489.22 ft

2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Inflow	kaf	11.8	10.8	12.5	14.7	14.1	22.3	18.0	13.4	13.7	15.1	15.9	14.6	176.9
River Release	kaf	2.6	2.3	2.6	2.5	20.9	34.9	44.5	26.4	15.4	3.1	3.0	3.1	161.3
River Release	cfs	42	41	42	42	340	587	724	429	259	50	50	50	
Excess Release	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
Gordon Spring Gain	kaf	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	17.9
End-Month Elevation	ft	5529.10	5531.28	5533.69	5536.50	5534.95	5531.95	5524.84	5520.79	5520.23	5524.03	5527.74	5530.76	
End-Month Content	kaf	97.1	105.6	115.5	127.7	120.9	108.3	81.8	68.8	67.1	79.1	92.0	103.5	
Net Change Content	kaf	9.2	8.5	9.9	12.2	-6.8	-12.6	-26.5	-13.0	-1.7	12.0	12.9	11.5	15.6

Diversions 2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
East Bench Demand	kaf	0.00	0.00	0.00	0.00	5.80	9.40	11.88	7.23	4.37	0.00	0.00	0.00	38.68
East Bench Req Rels	kaf	0.0	0.0	0.0	0.0	10.5	17.1	21.6	13.1	7.9	0.0	0.0	0.0	70.2
CCWSCO Tot Demand	kaf	0.00	0.00	0.00	0.00	15.60	25.27	31.92	19.44	11.75	0.00	0.00	0.00	103.98
CCWSCO Deliv	kaf	0.0	0.0	0.0	0.0	9.8	15.9	20.1	12.2	7.4	0.0	0.0	0.0	65.4
Non-proj Demand	kaf	0.00	0.00	0.00	0.00	3.33	5.39	6.81	4.15	2.51	0.00	0.00	0.00	22.19

Based on ***Minimum Probable*** Inflow Forecast with Full Allotments in WY 2017

Clark Canyon Reservoir — Initial Cont 87.9 kaf, Elev 5526.60 ft — Maximum Cont 310.1 kaf, Elev 5569.57 ft — Minimum Cont 10.0 kaf, Elev 5489.22 ft

2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Inflow	kaf	9.6	8.4	10.0	8.6	7.1	11.0	11.4	8.6	8.7	10.0	10.8	10.2	114.4
River Release	kaf	2.6	2.3	2.6	2.5	20.9	34.9	44.5	26.4	15.4	1.5	1.5	1.5	156.6
River Release	cfs	42	41	42	42	340	587	724	429	259	25	25	25	
Excess Release	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
Gordon Spring Gain	kaf	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	17.9
End-Month Elevation	ft	5528.52	5530.12	5531.98	5533.46	5530.04	5523.33	5511.19	5501.96	5497.46	5503.04	5508.04	5512.07	
End-Month Content	kaf	94.9	101.0	108.4	114.5	100.7	76.8	43.7	25.9	19.2	27.7	37.0	45.7	
Net Change Content	kaf	7.0	6.1	7.4	6.1	-13.8	-23.9	-33.1	-17.8	-6.7	8.5	9.3	8.7	-42.2

Diversions 2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
East Bench Demand	kaf	0.00	0.00	0.00	0.00	5.80	9.40	11.88	7.23	4.37	0.00	0.00	0.00	38.68
East Bench Req Rels	kaf	0.0	0.0	0.0	0.0	10.5	17.1	21.6	13.1	7.9	0.0	0.0	0.0	70.2
CCWSCO Tot Demand	kaf	0.00	0.00	0.00	0.00	15.60	25.27	31.92	19.44	11.75	0.00	0.00	0.00	103.98
CCWSCO Deliv	kaf	0.0	0.0	0.0	0.0	9.8	15.9	20.1	12.2	7.4	0.0	0.0	0.0	65.4
Non-proj Demand	kaf	0.00	0.00	0.00	0.00	3.33	5.39	6.81	4.15	2.51	0.00	0.00	0.00	22.19

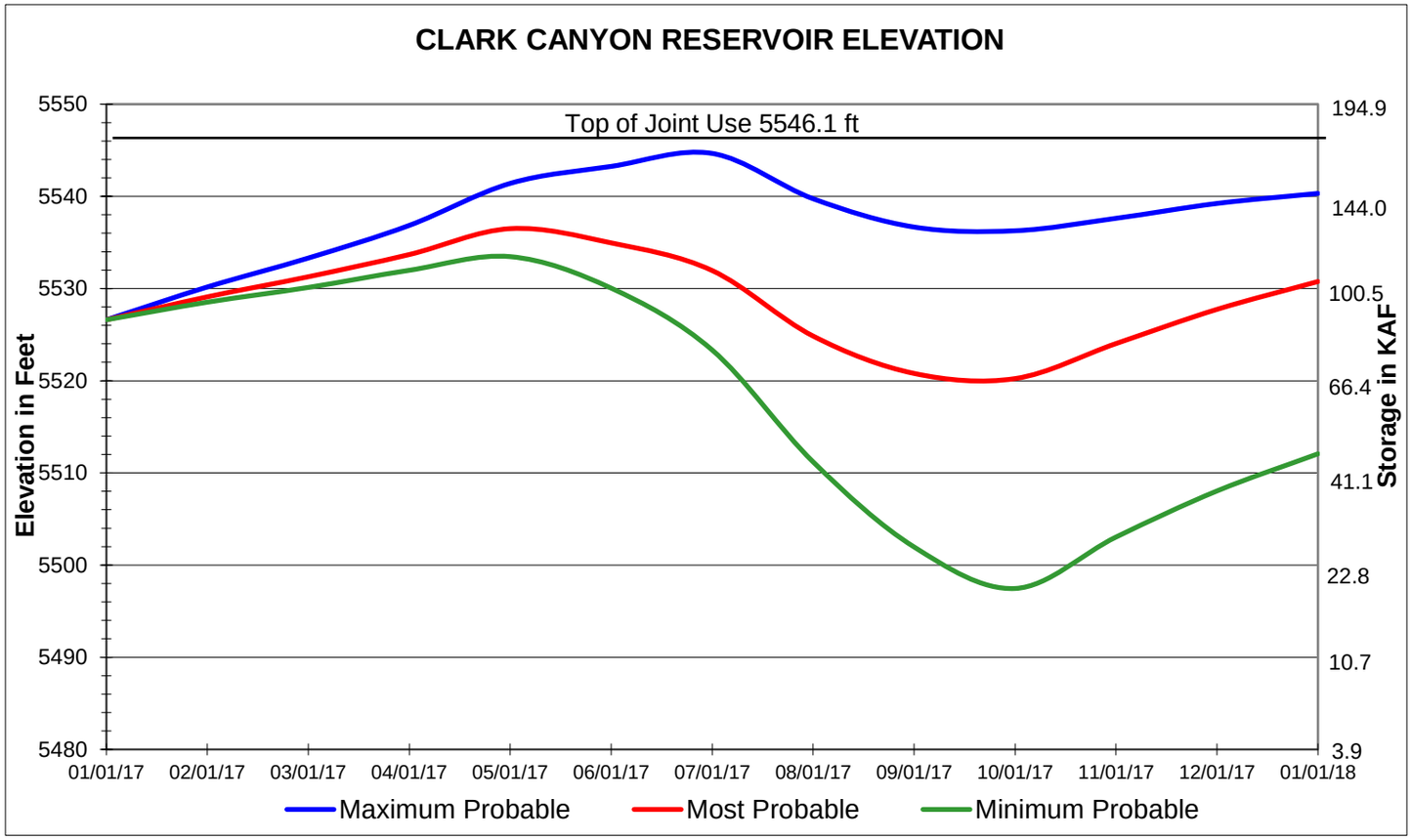
Based on ***Maximum Probable*** Inflow Forecast with Full Allotments in WY 2017

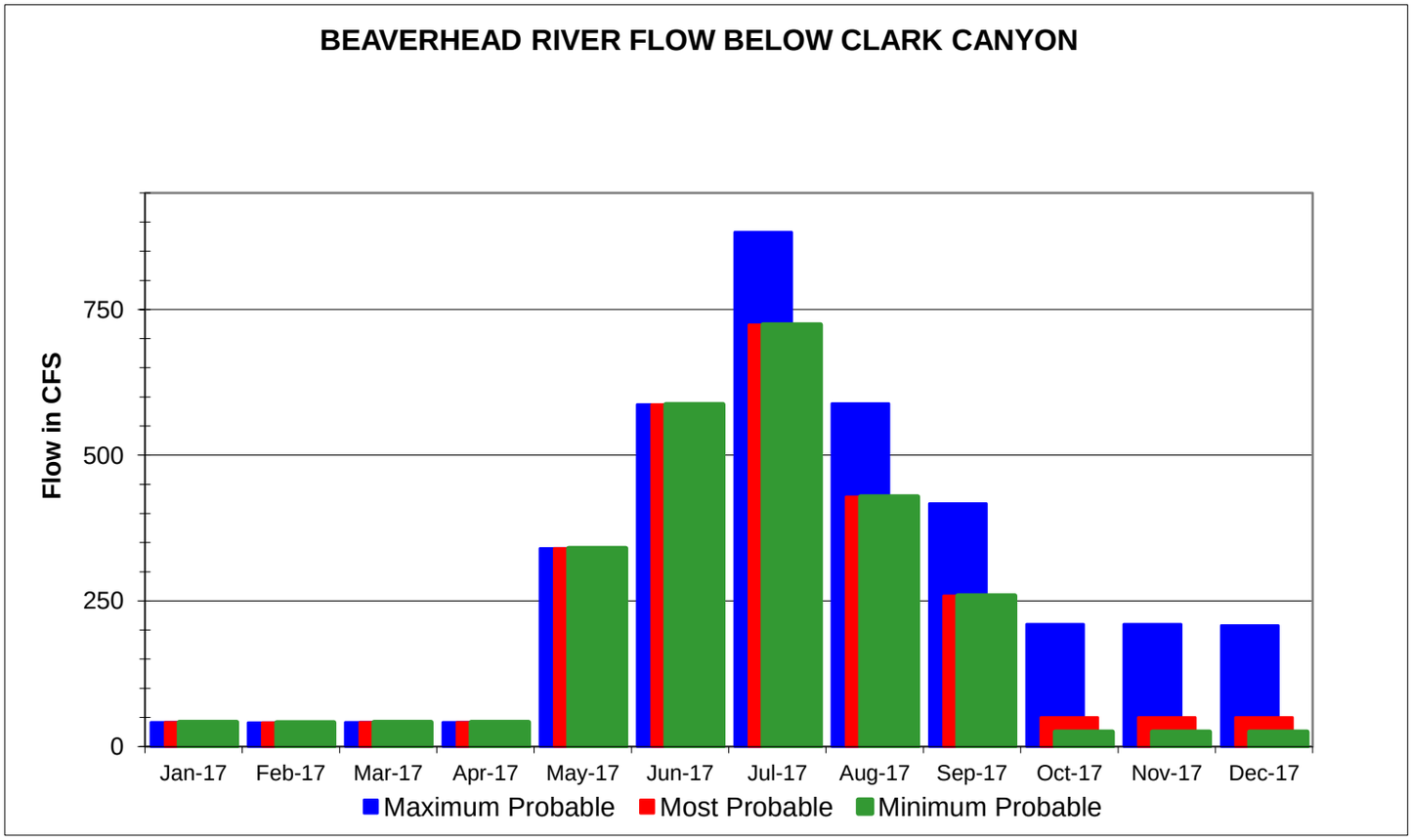
Clark Canyon Reservoir — Initial Cont 87.9 kaf, Elev 5526.60 ft — Maximum Cont 310.1 kaf, Elev 5569.57 ft — Minimum Cont 10.0 kaf, Elev 5489.22 ft

2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Inflow	kaf	15.9	15.0	18.0	24.0	30.0	42.0	30.0	22.0	23.0	19.0	20.0	18.0	276.9
River Release	kaf	2.6	2.3	2.6	2.5	20.9	34.9	54.3	36.2	24.8	12.9	12.5	12.8	219.3
River Release	cfs	42	41	42	42	340	587	883	589	417	210	210	208	
Excess Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	9.8	9.8	9.4	9.8	9.5	9.7	58.0
Gordon Spring Gain	kaf	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	17.9
End-Month Elevation	ft	5530.17	5533.31	5536.85	5541.41	5543.25	5544.66	5539.74	5536.67	5536.27	5537.62	5539.23	5540.32	
End-Month Content	kaf	101.2	113.9	129.3	150.8	159.9	167.0	142.7	128.5	126.7	132.8	140.3	145.5	
Net Change Content	kaf	13.3	12.7	15.4	21.5	9.1	7.1	-24.3	-14.2	-1.8	6.1	7.5	5.2	57.6

Diversions 2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
East Bench Demand	kaf	0.00	0.00	0.00	0.00	5.80	9.40	11.88	7.23	4.37	0.00	0.00	0.00	38.68
East Bench Req Rels	kaf	0.0	0.0	0.0	0.0	10.5	17.1	21.6	13.1	7.9	0.0	0.0	0.0	70.2
CCWSCO Tot Demand	kaf	0.00	0.00	0.00	0.00	15.60	25.27	31.92	19.44	11.75	0.00	0.00	0.00	103.98
CCWSCO Deliv	kaf	0.0	0.0	0.0	0.0	9.8	15.9	20.1	12.2	7.4	0.0	0.0	0.0	65.4
Non-proj Demand	kaf	0.00	0.00	0.00	0.00	3.33	5.39	6.81	4.15	2.51	0.00	0.00	0.00	22.19

CLARK CANYON RESERVOIR





WATER YEAR 2017