

RECLAMATION

Managing Water in the West

WIND RIVER BASIN RESERVOIR OPERATIONS

Water Supply Forecasts and Reservoir Operations
Prepared May 2022

End of April Storage: Bull Lake: 89,063 acre-feet

Pilot Butte: 24,624 acre-feet

Bull Lake Actual Inflows (1,000 acre-feet):

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
May 21	28.4	96
June 21	68.9	107
July 21	25.4	56
August 21	16.0	82
September 21	9.0	95
October 21	9.3	149
November 21	6.8	211
December 21	2.0	80
January 22	2.2	102
February 22	1.1	62
March 22	1.5	75
April 22	2.6	50

Wind River above Bull Lake Creek Actual Flows (1,000 acre-feet):

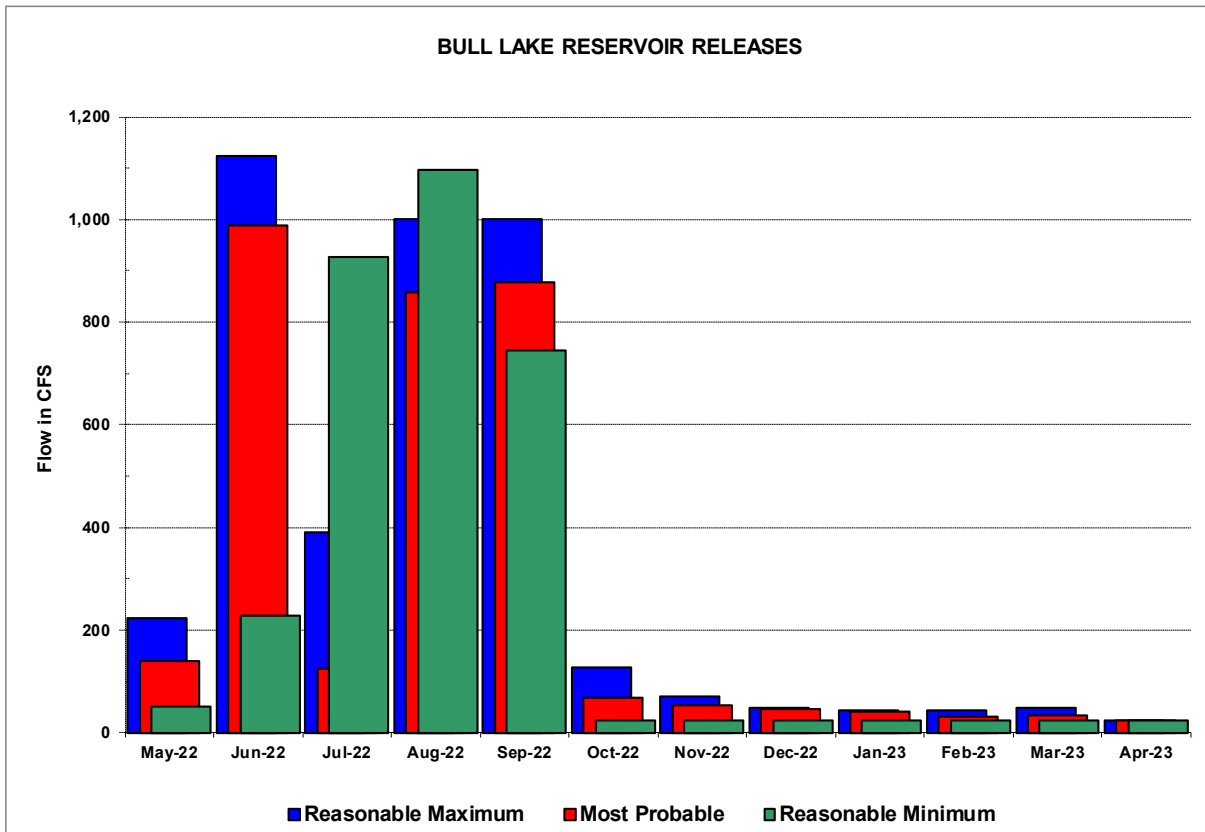
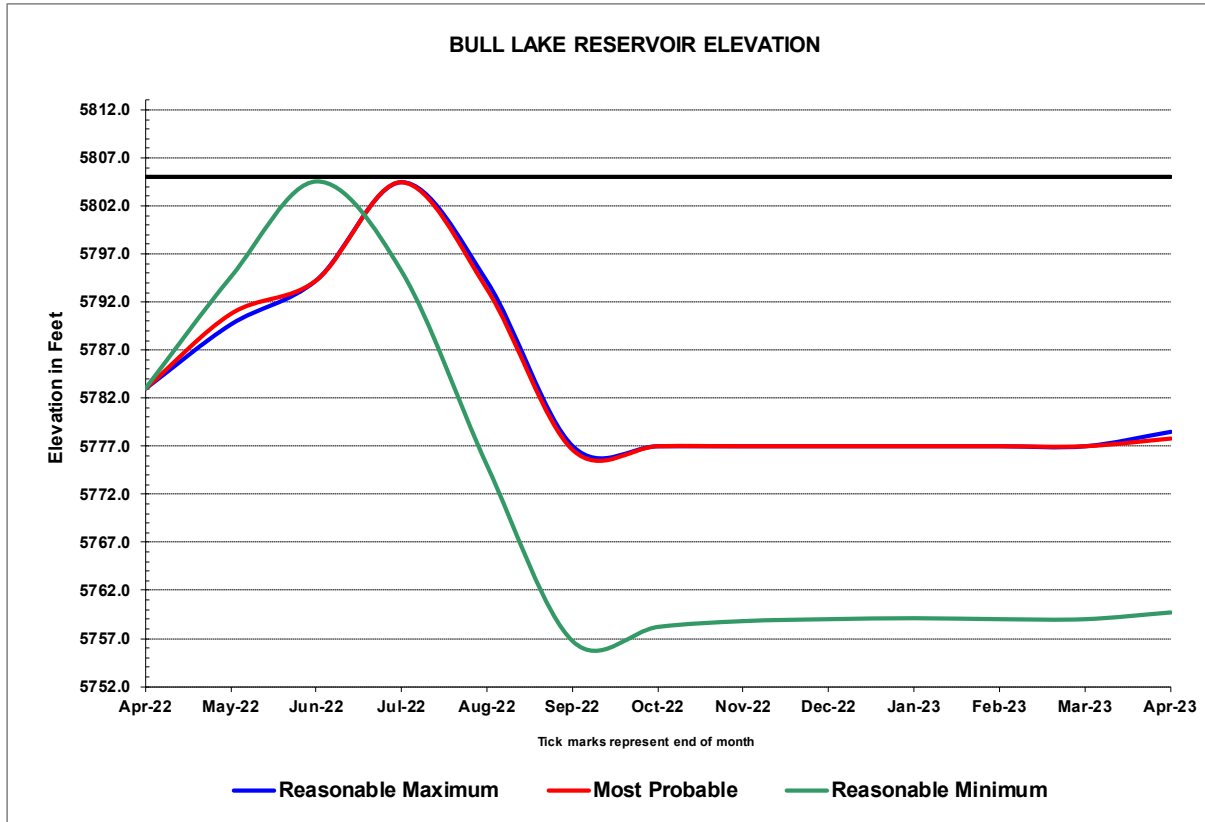
<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
May 21	84.3	88
June 21	178.0	91
July 21	61.7	51
August 21	42.3	83
September 21	31.5	89
October 21	32.1	93
November 21	27.2	104
December 21	25.1	85
January 22	Ice	n/a
February 22	Ice	n/a
March 22	20.3	106
April 22	19.2	77



— BUREAU OF —
RECLAMATION

U.S Department of the Interior
Bureau of Reclamation
Missouri Basin Region
Wyoming Area Office
Mills, Wyoming

BULL LAKE RESERVOIR



Based on May 2022 Expected Probable Inflow Estimates: Bull Lake - 140 KAF / Wind River abv Bull Lake Creek - 420 KAF.
 This plan assumes an annual demand of 170 KAF for the North Canal and 189 KAF for the Pilot Canal.

RIVERTON PROJECT OPERATING PLAN
 Year Beginning May 2022

Bull Lake Reservoir Operations Initial Content 89.1 Kaf Operating Limits: Max 151.7 Kaf, 5804.76 Ft.
 Min 20.0 Kaf, 5750.93 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	29.5	68.8	38.7	18.9	7.9	5.3	3.3	2.9	2.6	1.8	2.0	3.3	185.0
Total Dam Release	kaf	8.6	58.8	7.7	52.8	52.2	4.2	3.3	2.9	2.6	1.8	2.0	1.5	198.3
Total Dam Release	cfs	140.	988.	125.	858.	877.	68.	55.	47.	42.	32.	33.	25.	
Excess Release	kaf	7.1	57.3	6.2	5.9	0.0	2.6	1.8	1.4	0.0	0.0	0.0	0.0	82.2
End-month Content	kaf	110.0	120.0	151.0	117.1	72.9	74.0	74.0	74.0	74.0	74.0	74.0	75.8	
End-month Elevation	ft	5790.8	5794.3	5804.5	5793.3	5776.6	5777.0	5777.0	5777.0	5777.0	5777.0	5777.0	5777.8	
BLR Net Change	kaf	20.9	10.0	31.0	-33.9	-44.3	1.1	0.0	0.0	0.0	0.0	0.0	1.8	-13.3

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Flow abv BL Creek	kaf	83.0	201.7	116.2	41.8	26.7	34.0	23.1	18.9	21.3	18.3	17.7	21.1	623.8
Crowheart Gage Flow	kaf	91.6	260.5	123.9	94.6	78.9	38.2	26.4	21.8	23.9	20.1	19.7	22.6	822.1
Flow Below Div Dam	kaf	35.3	195.8	43.0	30.7	18.3	25.0	26.4	21.8	23.9	20.1	19.7	5.2	465.1
Gain/Return Flow	kaf	7.4	7.1	7.4	6.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	4.8	38.2
Indian Irrigation	kaf	6.1	6.0	6.1	5.5	4.5	1.2	0.0	0.0	0.0	0.0	0.0	1.8	31.3
LeClair/Riverton	kaf	18.8	24.2	27.2	21.1	15.0	5.0	0.0	0.0	0.0	0.0	0.0	3.5	114.8
LeC/Riv 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
Riverton Gage Flow	cfs	288.3	2903.8	277.0	165.3	70.0	304.9	443.7	354.5	388.7	361.9	321.0	78.4	

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Total Diversion	kaf	56.3	64.7	80.9	63.9	60.6	13.2	0.0	0.0	0.0	0.0	0.0	17.4	357.0
North Canal Flow	kaf	26.4	31.2	36.5	36.1	30.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	170.0
North Canal 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

Pilot Butte Reservoir Operations Initial Content 26.4 Kaf Operating Limits: Max 29.9 Kaf, 5459.98 Ft.
 Min 0.0 Kaf, 5410.00 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	29.9	33.5	44.4	27.8	30.6	13.2	0.0	0.0	0.0	0.0	0.0	7.6	187.0
Power Generated	mwh	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
Pilot Canal Release	kaf	28.0	33.1	43.9	37.4	33.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7	182.4
Pilot Canal 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
End-month Content	kaf	28.0	28.0	28.0	18.0	15.0	28.0	27.8	27.7	27.6	27.5	27.3	28.0	
PBR Net Change	kaf	1.6	0.0	0.0	-10.0	-3.0	13.0	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	1.6
End-month Elevation	ft	5457.8	5457.8	5457.8	5445.5	5441.3	5457.8	5457.6	5457.5	5457.4	5457.3	5457.0	5457.8	

Based on May 2022 Minimum Probable Inflow Estimates of: Bull Lake - 110 KAF / Wind River abv Bull Lake Creek - 320 KAF.
 This plan assumes an annual demand of 170 KAF for the North Canal and 189 KAF for the Pilot Canal.

RIVERTON PROJECT OPERATING PLAN
 Year Beginning May 2022

Bull Lake Reservoir Operations Initial Content 89.1 Kaf Operating Limits: Max 151.7 Kaf, 5804.76 Ft.
 ----- Min 30.0 Kaf, 5756.47 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	34.9	43.7	28.4	13.9	5.8	4.3	2.6	2.1	1.7	1.2	1.5	2.8	142.9
Total Dam Release	kaf	3.1	13.6	57.0	67.4	44.3	1.5	1.5	1.5	1.5	1.4	1.5	1.5	195.9
Total Dam Release	cfs	51.	228.	927.	1096.	744.	25.	25.	25.	25.	25.	25.	25.	
Excess Release	kaf	1.6	12.1	42.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0
End-month Content	kaf	120.9	151.0	122.4	68.9	30.4	33.2	34.3	34.9	35.0	34.9	34.8	36.1	
End-month Elevation	ft	5794.6	5804.5	5795.1	5774.9	5756.7	5758.2	5758.8	5759.0	5759.1	5759.0	5759.0	5759.7	
BLR Net Change	kaf	31.8	30.1	-28.6	-53.5	-38.5	2.8	1.1	0.6	0.2	-0.2	0.0	1.3	-53.0

Wind River		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Flow abv BL Creek	kaf	98.6	115.9	86.5	35.2	24.8	28.4	21.4	17.2	18.1	13.7	15.9	27.9	503.6
Crowheart Gage Flow	kaf	101.7	129.5	143.5	102.6	69.1	29.9	22.9	18.7	19.6	15.1	17.4	29.4	699.5
Flow Below Div Dam	kaf	43.6	64.8	62.6	24.8	16.5	11.7	22.9	18.7	19.6	15.1	17.4	12.0	329.8
Gain/Return Flow	kaf	7.4	7.1	7.4	6.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	4.8	38.2
Indian Irrigation	kaf	6.1	6.0	6.1	5.5	2.7	1.2	0.0	0.0	0.0	0.0	0.0	1.8	29.5
LeClair/Riverton	kaf	18.8	24.2	27.2	21.1	15.0	5.0	0.0	0.0	0.0	0.0	0.0	3.5	114.8
LeC/Riv 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
Riverton Gage Flow	cfs	424.0	701.6	595.4	70.0	70.0	89.6	384.6	304.7	319.4	271.7	283.6	192.6	

Wyoming Canal		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Total Diversion	kaf	58.1	64.7	80.9	77.8	52.6	18.2	0.0	0.0	0.0	0.0	0.0	17.4	369.7
North Canal Flow	kaf	26.4	31.2	36.5	50.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	180.9
North Canal 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

Pilot Butte Reservoir Operations Initial Content 24.6 Kaf Operating Limits: Max 29.9 Kaf, 5459.98 Ft.
 ----- Min 10.0 Kaf, 5433.49 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	31.7	33.5	44.4	27.8	25.6	18.2	0.0	0.0	0.0	0.0	0.0	7.6	188.8
Power Generated	mwh	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
Pilot Canal Release	kaf	28.0	33.1	43.9	37.4	33.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7	182.4
Pilot Canal 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
End-month Content	kaf	28.0	28.0	28.0	18.0	10.0	28.0	27.8	27.7	27.6	27.5	27.3	28.0	
PBR Net Change	kaf	3.4	0.0	0.0	-10.0	-8.0	18.0	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	3.4
End-month Elevation	ft	5457.8	5457.8	5457.8	5445.5	5433.5	5457.8	5457.6	5457.5	5457.4	5457.3	5457.0	5457.8	

Based on May 2022 Maximum Probable Inflow Estimates of: Bull Lake - 170 KAF / Wind River abv Bull Lake Creek - 520 KAF.
 This plan assumes an annual demand of 170 KAF for the North Canal and 189 KAF for the Pilot Canal.

RIVERTON PROJECT OPERATING PLAN
 Year Beginning May 2022

Bull Lake Reservoir Operations Initial Content 89.1 Kaf Operating Limits: Max 151.1 Kaf, 5804.57 Ft.
 ----- Min 15.0 Kaf, 5748.01 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	31.7	79.8	55.1	30.0	14.1	7.9	4.3	3.1	2.7	2.4	3.0	5.2	239.3
Total Dam Release	kaf	13.8	66.8	24.1	61.5	59.6	7.9	4.3	3.1	2.7	2.4	3.0	1.5	250.7
Total Dam Release	cfs	224.	1123.	392.	1001.	1001.	128.	72.	50.	44.	43.	48.	25.	
Excess Release	kaf	12.3	65.3	22.6	50.5	26.5	6.4	2.8	1.6	0.0	0.0	0.0	0.0	187.9
End-month Content	kaf	107.0	120.0	151.0	119.5	74.0	74.0	74.0	74.0	74.0	74.0	74.0	77.7	
End-month Elevation	ft	5789.7	5794.3	5804.5	5794.1	5777.0	5777.0	5777.0	5777.0	5777.0	5777.0	5777.0	5778.5	
BLR Net Change	kaf	17.9	13.0	31.0	-31.5	-45.5	0.0	0.0	0.0	0.0	0.0	0.0	3.7	-11.4

Wind River		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Flow abv BL Creek	kaf	115.2	252.0	135.3	77.4	50.6	37.1	32.5	30.3	31.7	20.5	27.5	27.9	838.0
Crowheart Gage Flow	kaf	129.0	318.8	159.4	138.9	110.2	45.0	36.8	33.4	34.4	22.9	30.5	29.4	1088.7
Flow Below Div Dam	kaf	70.9	254.1	78.5	80.2	49.6	31.4	36.8	33.4	34.4	22.9	30.5	12.0	734.7
Gain/Return Flow	kaf	7.4	7.1	7.4	6.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	4.8	38.2
Indian Irrigation	kaf	6.1	6.0	6.1	5.5	4.5	1.2	0.0	0.0	0.0	0.0	0.0	1.8	31.3
LeClair/Riverton	kaf	18.8	24.2	27.2	21.1	15.0	5.0	0.0	0.0	0.0	0.0	0.0	3.5	114.8
LeC/Riv 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
Riverton Gage Flow	cfs	867.3	3883.6	854.3	971.9	595.8	409.4	618.4	543.2	559.5	412.3	495.6	192.6	

Wyoming Canal		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Total Diversion	kaf	58.1	64.7	80.9	58.7	60.6	13.6	0.0	0.0	0.0	0.0	0.0	17.4	354.0
North Canal Flow	kaf	26.4	31.2	36.5	30.9	27.0	3.4	0.0	0.0	0.0	0.0	0.0	9.8	165.2
North Canal 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

Pilot Butte Reservoir Operations Initial Content 24.6 Kaf Operating Limits: Max 29.9 Kaf, 5459.98 Ft.
 ----- Min 10.0 Kaf, 5433.49 Ft.

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Reservoir Inflow	kaf	31.7	33.5	44.4	27.8	33.6	10.2	0.0	0.0	0.0	0.0	0.0	7.6	188.8
Power Generated	mwh	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
Pilot Canal Release	kaf	28.0	33.1	43.9	37.4	33.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7	182.4
Pilot Canal 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
End-month Content	kaf	28.0	28.0	28.0	18.0	18.0	28.0	27.8	27.7	27.6	27.5	27.3	28.0	
PBR Net Change	kaf	3.4	0.0	0.0	-10.0	0.0	10.0	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	3.4
End-month Elevation	ft	5457.8	5457.8	5457.8	5445.5	5445.5	5457.8	5457.6	5457.5	5457.4	5457.3	5457.0	5457.8	