

North Platte River Water Supply Update EAC/RCC Meeting Mar 5, 2024

Figure 1 shows reservoir storage conditions for Reclamation reservoirs on the North Platte River as of February 26, 2024, including the statistical “most probable” 2024 operations compiled from the February operating plan. The term “kaf” used in this report represents 1000 acre-feet. All averages used in this report are for the period 1994-2023.

The North Platte total system storage of 1,817,151 on January 31, 2024 represents an increase in the system storage of 585.0 kaf from January 31, 2023 (1,232.2 kaf). This system storage increase is attributable to the higher than average inflows during water year 2023. Deliveries from Guernsey Reservoir were discontinued on September 26, 2023. The North Platte Project Irrigation Districts conserved approximately 591.3 kaf of carryover storage at the end of September 2023.

The total system expected probable inflow for 2024 is estimated to be 964.2 kaf, which is a below average inflow condition. The total Guernsey Reservoir probable outflow for water year 2024 is estimated to be 1,047.4 kaf which reflects no allocation expected for the North Platte Project contractors. The projected total system storage on September 30, 2024, is estimated to be 92% of average (1,374.5 kaf/1,494.9 kaf) or 49% of the total conservation capacity of the system.

Figure 2 and Figure 3 provide snow water equivalent (SWE) information expressed in inches of water for the upper and lower North Platte River basins compared to both last year and average. Figure 4 is the Natural Resource Conservation Service (NRCS) statewide SWE map in percent of median. The upper North Platte is 96%, Sweetwater is 97% and Lower North Platte is 75% of median for Feb 27, 2024. Total forecast calculated on February 01, 2024 for the April through July inflow to the system is 572 kaf which is 60% of average (952 kaf).

Table 1 shows the actual October through January operations with projected February through September Inflows based on reasonable expected inflow conditions. The operating plans are updated monthly to reflect changing inflow conditions. This report focuses on the information associated with the February most probable operating plan. Table 2 shows the February 1 forecast of April-July inflow for water year 2024.

Table 1 also includes the accompanying information for the 30-year average (1994-2023) for comparison. Based on the February most probable North Platte River Operating Plan, the North Platte Pathfinder ownership is estimated to reach a maximum ownership content of 992.4 kaf (93% of full) by the end of June. This would indicate that the Pathfinder Irrigation, Wyoming, and Environmental accounts may not fill. Releases from Guernsey Reservoir will be in response to demands, and a nearly full water supply is expected to be available for irrigation.

Reclamation will continue to update the North Platte River operating plans on a monthly basis in response to changing inflow conditions. Reclamation will prepare forecasts of the April through July snowmelt runoff continuing through May 1. The above projected operations are subject to change in response to fluctuating inflow conditions. For additional information regarding current reservoir contents and releases, please visit our website (https://www.usbr.gov/gp/lakes_reservoirs/index.html and <https://www.usbr.gov/gp/hydromet/>).

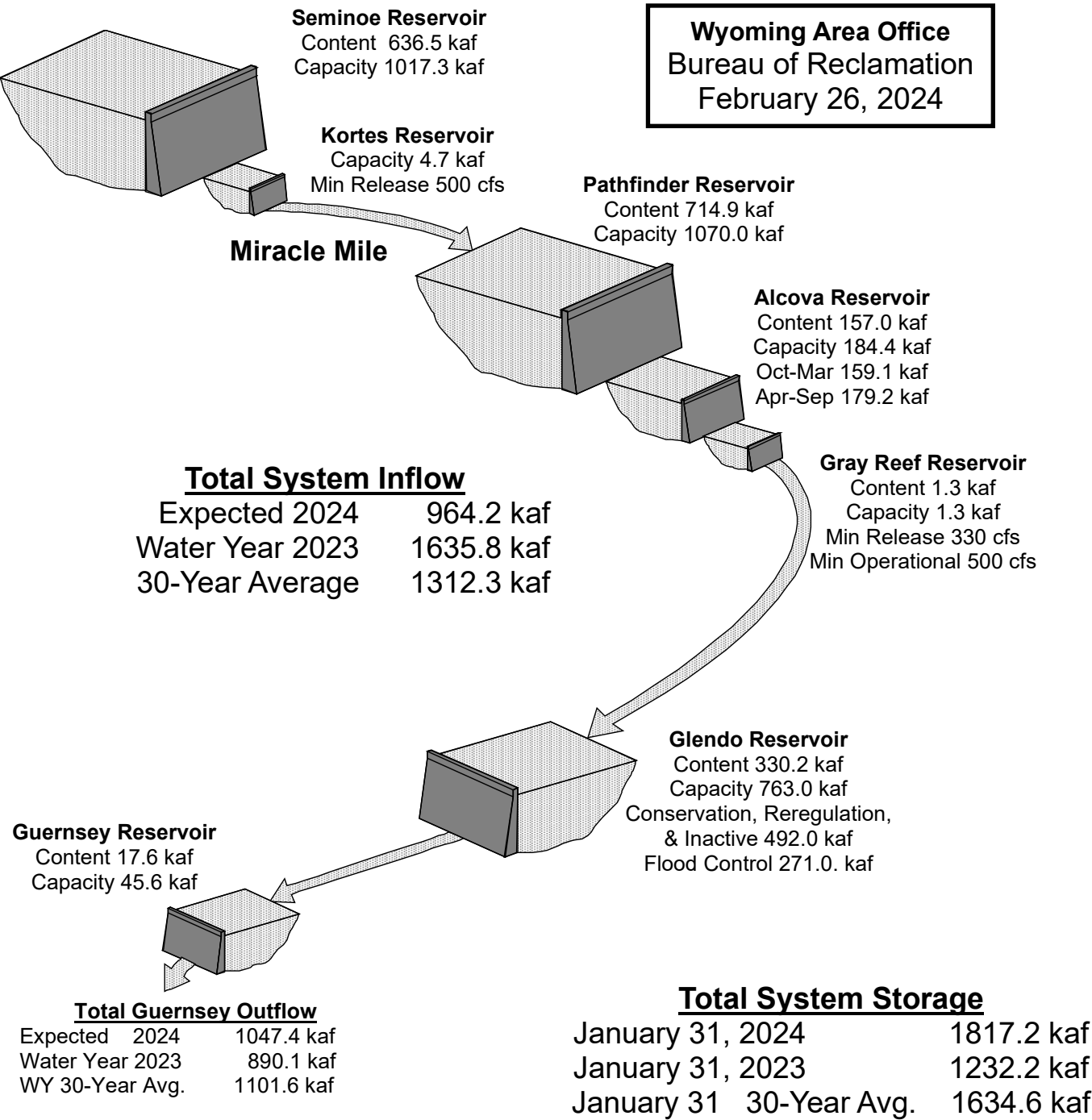
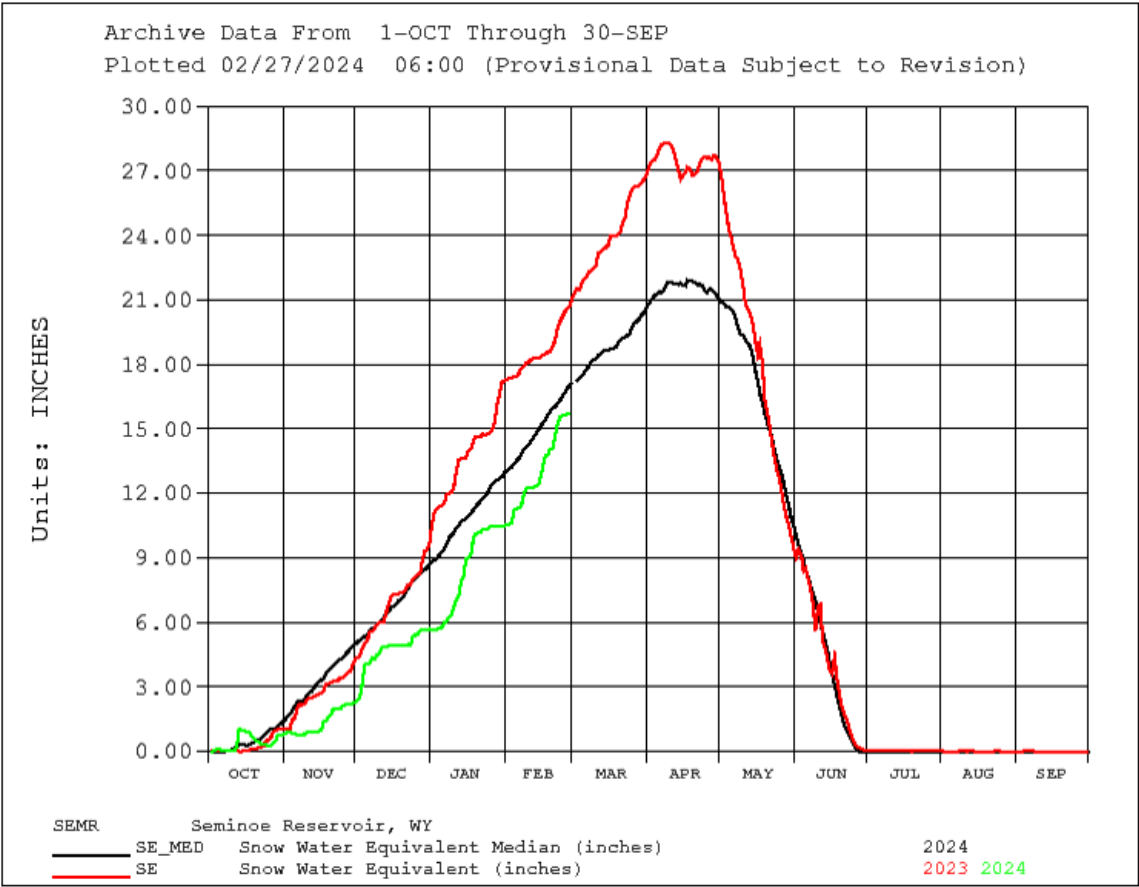


Figure 1. North Platte River System, Seminoe Reservoir to Guernsey Reservoir
Total System Conservation Capacity 2815.9 kaf

Figure 2. Basin above Seminole Reservoir Snow Water Equivalent vs. April-July Runoff



Water Year	April-July SEMR Inflow (acre-Feet)
2024*	575,800
2023	1,161,986
30-Year Mean	718,199

* Forecast value

Figure 3. Alcova to Glendo Reach Snow Water Equivalent vs. April – July Inflow

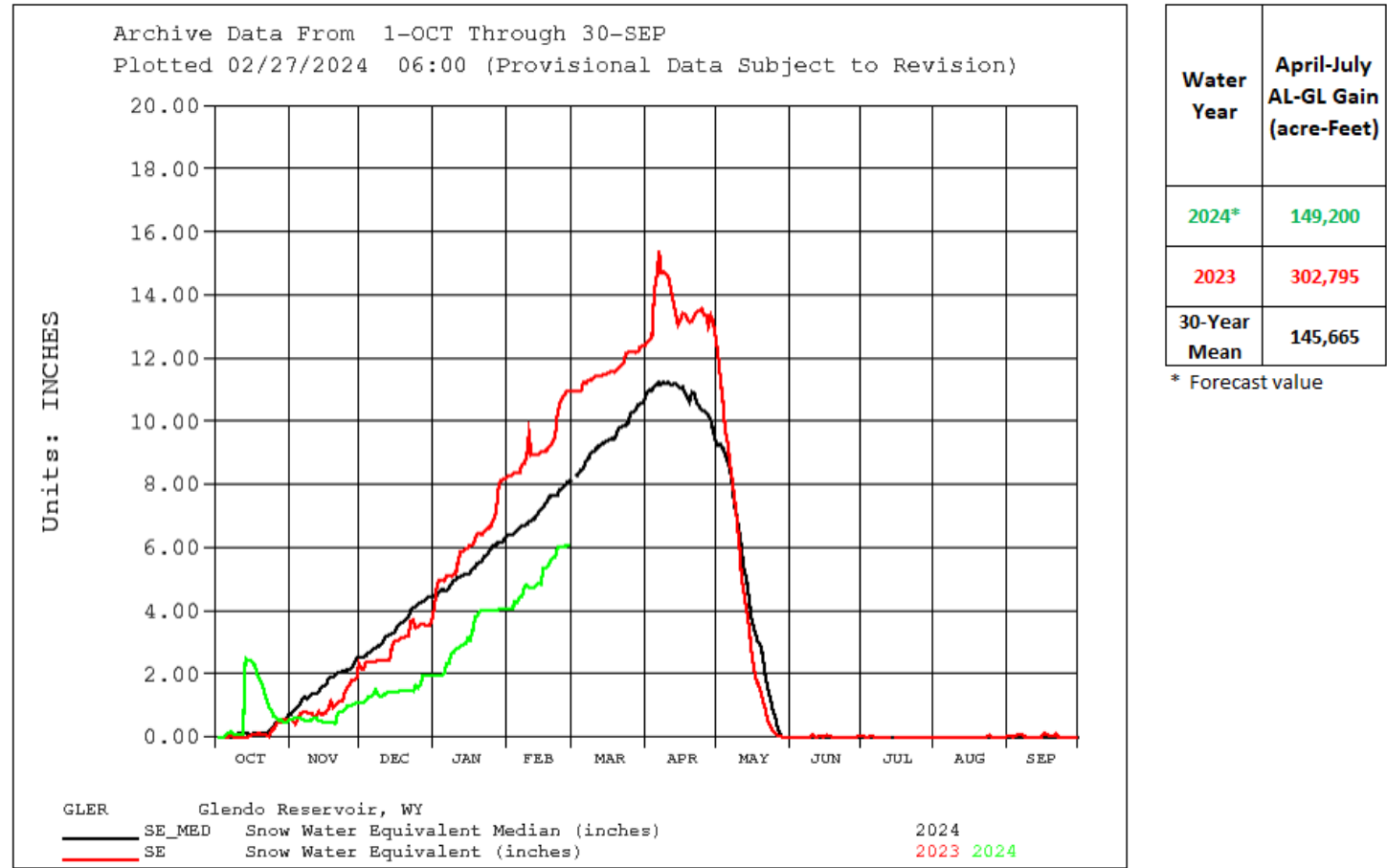


Figure 4. Snow Water Equivalent Percentage by Basin for the State of Wyoming

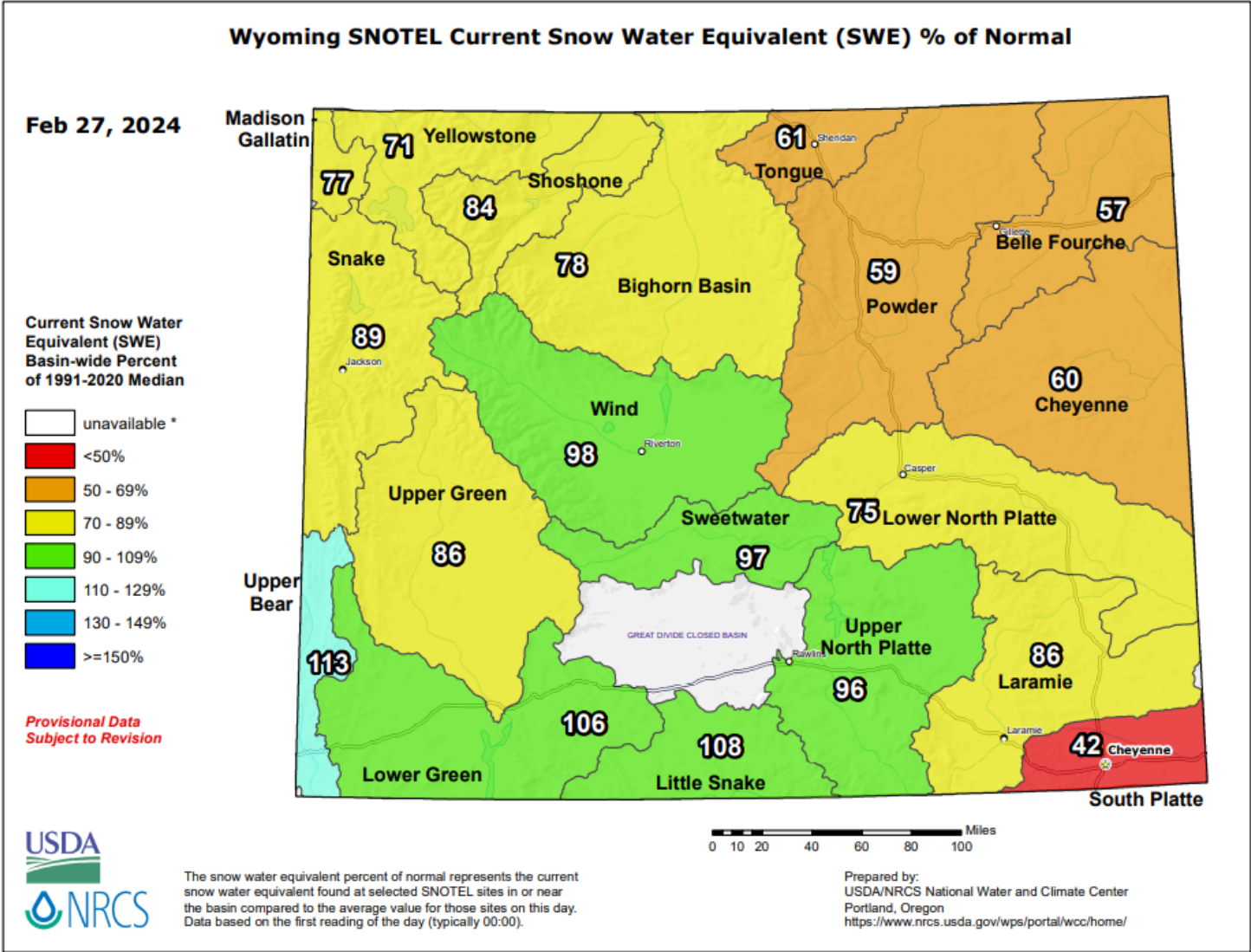


Table 1. North Platte River System Operating Plan - March Update for Water Year 2024

Projected Total System Inflow										1000 x acre-feet			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Most Probable #	42.7	34.1	40.3	37.8	46.0	80.9	111.8	209.5	222.4	66.1	38.8	33.8	964.2
Average 1994-2023	44.5	44.1	38.9	44.2	46.3	86.7	165.6	347.8	335.6	102.8	35.1	32.9	1,324.5
Most Probable % of Avg.	96%	77%	104%	86%	99%	93%	67%	60%	66%	64%	111%	103%	73%

Projected Guernsey Reservoir Outflow										1000 x acre-feet			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Most Probable #	0.1	0.1	0.2	0.2	0.2	0.3	10.0	141.3	181.0	310.0	284.0	120.0	1,047.4
Average 1994-2023	2.3	0.4	0.4	0.5	0.6	12.8	48.1	141.0	181.3	310.0	284.0	120.2	1,101.6
Most Probable % of Avg.	4%	25%	45%	38%	34%	2%	21%	100%	100%	100%	100%	100%	95%

Projected Total System End-of-Month Storage										1000 x acre-feet			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Most Probable #	1,517.6	1,558.9	1,594.5	1,634.6	1,676.7	1,742.4	1,842.8	2,018.7	2,129.5	1,880.1	1,599.8	1,374.5	
Average 1994-2023	1,517.6	1,558.9	1,594.5	1,634.6	1,676.7	1,742.4	1,842.8	2,018.7	2,129.5	1,880.1	1,599.8	1,494.9	
Most Probable % of Avg.	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	92%	

Forecast 2024 ending percent of total system capacity 49%

Actual data in the October through March Columns. Most Probable data in the April through September columns.

Table 2. North Platte River Basin Forecast Water Year 2024

(1000 acre-feet)

Forecast Points	Feb 1, 2024 Forecast of April-July Runoff			30 Yr. April-July Runoff Avg. ²	Expected % of Avg.	Comparative Actual April - July Runoff			
	Reasonable Maximum ¹	Expected	Reasonable Minimum ¹			W. Yr. 2023	W. Yr. 2022	W. Yr. 2021	W. Yr. 2020
Seminole Reservoir	850	470	280	721	65	969	547	339	632
Sweetwater River Above Pathfinder Reservoir	79	42	16	55	77	112	17	17	25
Alcova to Glendo	130	60	25	146	41	227	81	110	134

¹ The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

² Average is based on the 1994-2023 period.