

## **North Platte River Water Supply Update EAC/RCC Meeting November 08, 2022**

Current reservoir storage conditions for Reclamation reservoirs on the North Platte River as of October 31, 2022, 1,137.9 kaf which is 76 percent of the 30 year average and 40% of the total conservation storage capacity of 2,815.8 kaf (see Table 1). The term “kaf” used in this report represents 1000 acre-feet. All averages used in this report are for the period 1993-2022. The North Platte total system storage on October 31, 2022 represents a decrease in the system storage of 162 kaf from water year 2021 (1299.9 kaf). This system storage decrease is attributable to lower than average inflows during water year 2022.

Table 2 shows the inflows for September 2022 and for the entire water year 2022 and the 30-year average (1993-2022) for comparison. Total inflows in water year 2022 were 70 percent of average. Releases from Guernsey Reservoir were discontinued on September 29, 2022 after completing Pathfinder environmental account and CNPPID deliveries while lowering Guernsey Reservoir for winter operations. The carryover Pathfinder Ownership at the end of water year 2022 was 155.0 KAF, which is 14% of the full ownership capacity of 1,070.0 KAF.

Reclamation prepares North Platte River reservoir system operating plans for the reasonable minimum, most probable, and reasonable maximum inflow conditions. The operating plans for October 2022 through September 2023 use a statistical analysis of historic inflows to estimate total system probable inflow for 2022, which approximates an average inflow condition and is estimated to be 1337.0 kaf. The total Guernsey Reservoir probable outflow for 2022 is estimated to be 1,059.7 kaf for October through September. The operating plans are updated monthly to reflect changing inflow conditions. This report focuses on the information associated with the October most probable operating plan.

Based on the October most probable North Platte River Operating Plan, the North Platte Pathfinder ownership is estimated to reach a maximum ownership content of 971.7 kaf (91% of full) by the end of June. This would indicate that the Pathfinder ownership would not fill. Since the Pathfinder ownership is not expected to fill, the Kendrick Ownership is not expected to accrue any water during the water year. Given the most probable inflow conditions; the Guernsey and the Inland Lakes ownerships are expected to fill. The Glendo ownership is not expected to fill. Releases from Guernsey Reservoir will be in response to demands. Based on expected probable inflow conditions (ie. near average), no allocation is currently expected for North Platte Project contractors.

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 starting in February and continuing through May 1. The above projected operations are subject to change in response to fluctuating inflow conditions.

Table 1. North Platte River System Reservoir Storage October 31, 2022

| Reservoir    | Total Storage<br>End of October |                             |              | End of October<br>Historical Storage |                |                | Total<br>Conservation<br>Storage<br>Capacity | Percent<br>of<br>Capacity |
|--------------|---------------------------------|-----------------------------|--------------|--------------------------------------|----------------|----------------|--|---------------------------|
|              | W. Yr.<br>2023                  | 30 Yr.<br>Avg. <sup>1</sup> | % of<br>Avg. | W. Yr.<br>2022                       | W. Yr.<br>2021 | W. Yr.<br>2020 |  |                           |
| Seminole     | 480.8                           | 597.5                       | 80           | 315.2                                | 635.8          | 803.8          | 1017.3                                       | 47                        |
| Kortes       | 4.7                             | 4.7                         | 100          | 4.7                                  | 4.7            | 4.7            | 4.7  | 100                       |
| Pathfinder   | 326.2                           | 558.1                       | 58           | 635.5                                | 660.5          | 865.5          | 1070.0                                       | 30                        |
| Alcova       | 157.8                           | 155.0                       | 102          | 157.5                                | 98.5           | 156.9          | 184.4  | 86                        |
| Gray Reef    | 1.3                             | 1.4                         | 89           | 1.6                                  | 1.8            | 1.6            | 1.8  | 72                        |
| Glendo       | 160.8                           | 181.7                       | 88           | 185.4                                | 233.9          | 203.0          | 492.0  | 33                        |
| Guernsey     | 6.3                             | 6.3                         | 100          | 0.0                                  | 7.8            | 7.4            | 45.6   | 14                        |
| <b>Total</b> | <b>1137.9</b>                   | <b>1504.7</b>               | <b>76</b>    | <b>1299.9</b>                        | <b>1643.0</b>  | <b>2043.0</b>  | <b>2815.8</b>                                | <b>40</b>                 |

<sup>1</sup> Average is based on the 1993-2022 period.

Table 2. North Platte River System Water Year 2022 Inflows

(1000 acre-feet)

| Reservoir                 | September<br>Inflow |                |              | September<br>Historical Inflow |                |                | Accumulated Inflow<br>October - September |                             |              |
|---------------------------|---------------------|----------------|--------------|--------------------------------|----------------|----------------|---|-----------------------------|--------------|
|                           | W. Yr.<br>2022      | 30 Yr.<br>Avg. | % of<br>Avg. | W. Yr.<br>2021                 | W. Yr.<br>2020 | W. Yr.<br>2019 | W. Yr.<br>2022                            | 30 Yr.<br>Avg. <sup>5</sup> | % of<br>Avg. |
| Seminole                  | 9.8                 | 20.0           | 49           | 9.6                            | 12.2           | 20.9           | 746.9                                     | 953.6                       | 78           |
| Pathfinder <sup>1,2</sup> | 2.8                 | 3.0            | 93           | -1.4                           | 0.2            | -2.8           | 25.6                                      | 105.5                       | 24           |
| Glendo <sup>3</sup>       | 4.7                 | 6.6            | 71           | 5.5                            | 7.9            | 8.8            | 143.1                                     | 219.4                       | 65           |
| Guernsey <sup>4</sup>     | 2.2                 | 3.8            | 58           | 3.5                            | 6.9            | -0.2           | -0.8                                      | 36.2                        | N/A          |
| <b>System Total</b>       | <b>19.5</b>         | <b>33.4</b>    | <b>58</b>    | <b>17.2</b>                    | <b>27.2</b>    | <b>26.7</b>    | <b>914.7</b>                              | <b>1314.7</b>               | <b>70</b>    |

<sup>1</sup> It is assumed that there is no gain between Seminole and Kortes Dams.

<sup>2</sup> River gain between Kortes and Pathfinder Dams.

<sup>3</sup> River gain between Pathfinder and Glendo Dams.

<sup>4</sup> River gain between Glendo and Guernsey Dams.

<sup>5</sup> 30 year average. (1992-2021)