BUREAU OF RECLAMATION

Summary of Operations for Water Year 2022 for North Platte River Basin Reservoirs

Seminoe, Kortes, Pathfinder, Alcova, Gray Reef, Glendo, Guernsey, and Inland Lakes

Annual Operating Plans

Glen Elder Dam, Kansas

U.S. Department of the Interior

August 2023

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Preface

This report documents the operation of all Bureau of Reclamation (Reclamation) facilities in the North Platte River Drainage Basin above and including Guernsey Dam and the four Inland Lakes near Scottsbluff, Nebraska. This area of the North Platte River Drainage Basin is simply referred to in this report as the Basin.

References to “average” in this document will refer to the average historical hydrologic record for the years 1993-2022. In each coming year this period will be advanced by one year to maintain a running
30-year average.

Acronyms and Abbreviations

+	plus
+/-	plus, or minus
AF	acre-foot/feet
AOP	Annual Operating Plan
average	average historical record for 1993-2022
Basin	North Platte River Drainage Basin
cfs	cubic feet per second
EOM	end of month
Ft	foot/feet
GWh	gigawatt hours
KAF	thousand acre-feet
kw	kilowatts
kwh/AF	kilowatt-hours per acre-foot
min.	minimum
max	maximum
MW	megawatts
NRCS	Natural Resource Conservation Service
PS-MBP	Pick-Sloan Missouri Basin Program
Reclamation	Bureau of Reclamation
SWE	snow water equivalent
System	system of dams, reservoirs, and powerplants on the North Platte River
Western	Western Area Power Administration
WY	water year
WYAO	Wyoming Area Office (Reclamation)

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Introduction

The system of dams, reservoirs, and powerplants on the North Platte River (referred to as the "System" in this document) is monitored and in most cases operated and managed from the Bureau of Reclamation's (Reclamation) Wyoming Area Office (WYAO) in Mills, Wyoming. The operation and management of the System is aided by using a Programmable Master Supervisory Control, computerized accounting processes, an extensive network of Hydromet stations, control crest measurement weirs at gaging stations, snow telemetry (SNOTEL) stations, and a snowmelt runoff forecasting procedure used by the Water Management Branch. The System consists of a number of individual water resource projects that were planned and constructed by Reclamation. The individual projects and features are operated as an integrated system to achieve efficiencies that increase multipurpose benefits. The drainage basin that affects the System covers an area from northern Colorado to southeastern Wyoming, encompassing 16,224 square miles. Storage reservoirs in the System include four off-stream reservoirs known as the Inland Lakes in western Nebraska as shown in Figure E-1.

Approximately 70 to 80 percent of the annual North Platte River streamflow above Seminoe Dam occurs from snowmelt runoff during the April through July period. Primary water demand is irrigation, and the period of delivery of irrigation water normally extends from May through September. Figure C-1 represents historical watershed runoff above Pathfinder Reservoir from 1906 through 2022. The System furnishes irrigation water to over 440,000 acres of land in Wyoming and Nebraska.

The System includes the Kendrick Project (formerly Casper-Alcova) in Wyoming; with major features of the project being Seminoe Dam and Powerplant, Alcova Dam and Powerplant, and Casper Canal. Kendrick Project lands lie on the northwest side of the North Platte River between Alcova Reservoir and Casper, Wyoming. The North Platte Project in Wyoming and Nebraska consists of Pathfinder Dam and Reservoir; Guernsey Dam, Reservoir and Powerplant; Whalen Dam; Northport, Fort Laramie, and Interstate canals; and four off stream inland reservoirs on the Interstate Canal. The Kortes Unit of the Pick-Sloan Missouri Basin Program (PS-MBP) consists of Kortes Dam, Reservoir, and Powerplant, in a narrow gorge of the North Platte River, 2 miles below Seminoe Dam. The Glendo Unit of the PS-MBP is a multiple-purpose natural resource development. It consists of Glendo Dam, Reservoir, and Powerplant; Fremont Canyon Powerplant; and Gray Reef Dam and Reservoir, a re-regulating reservoir immediately downstream of Alcova Dam.

Major contributing rivers of the water supply in the System are the North Platte River in Colorado, and the Medicine Bow and Sweetwater Rivers in Wyoming.

The System has seven main stem reservoirs, six of which have powerplants with generating capacities totaling 239,200 kilowatts (kw). Table 25 depicts a breakdown of generating units and their capacity for each North Platte Powerplant. Table 1 below depicts North Platte River Reservoir Data.

Table 1.—North Platte River Reservoir data

Reservoir (Date Completed)	Dead Storage [1] Acre-feet (AF)	Active Storage [2] (AF)	Total Storage (AF)	Minimum Storage (AF)	Minimum Elevation (feet)
Seminoe (1939)	556	1,016,717	1,017,273	31,670 [4]	6,239.00 [4]
Kortes (1951)	151	4,588	4,739	1,666 [4]	6,092.00 [4]
Pathfinder (1909)	7	1,069,993	1,070,000	31,405 [4]	5,746.00 [4]
Alcova (1938)	91	184,314	184,405	137,610 [5]	5,479.50 [5]
Gray Reef (1961)	56	1,744	1,800	56 [6]	5,312.00 [6]
Glendo (1958)	7,010	756,029	763,039 [3]	51,573	4,570.00 [7]
Guernsey (1927)	0	45,612	45,612	0	4,370.00 [8]
Total	7,871	3,078,997	3,086,868	253,980	N/A

[1] Storage capacity below elevation of lowest outlet
[2] Total storage minus dead storage
[3] Top of Conservation capacity 492,022 AF (Elevation 4,635.00 ft) with an additional 271,017 AF allocated to Flood Control (elevation 4,653.00 ft)
[4] Minimum water surface elevation and capacity required for power generation this level is the top of inactive capacity
[5] Content and minimum elevation required for power generation; however, water cannot be delivered to Casper Canal when reservoir level is below 5,487.00 ft (153,802 AF), the elevation of the Casper Canal Gate sill.
[6] Top of dead capacity – spillway crest
[7] Minimum water surface elevation for power generation
[8] Elevation of the North Spillway Crest

The Department of Energy, by Executive Order dated October 1, 1977, assumed the responsibility of marketing power from Federal resources and operation and maintenance of Federal transmission facilities.

Western Area Power Administration (Western) of the Department of Energy, headquartered in Lakewood, Colorado, now operates and maintains the nearly 3,500 miles of interconnected electrical transmission lines within the System. The power generating facilities are also interconnected with other Federal, public, and private power facilities. Power from Reclamation powerplants is marketed by Western.

System Planning and Control

The North Platte River storage, power generation, and water delivery facilities are operated for irrigation, hydroelectric power production, municipal and industrial water supply. The facilities provide year-round flows in the river below each North Platte Dam except for Guernsey Dam. The facilities also provide flood control, recreation, fish, and wildlife preservation. Each project of the System must be operated under the purposes for which it was authorized and constructed. The objective of an integrated system is to obtain optimum benefits from the individual projects.

The System's integrated operation is planned and coordinated by Reclamation's WYAO. This office collects and analyzes information daily and makes the decisions necessary for successful operation of the System. The water management function involves coordination between Reclamation, the Department of Energy, and many other local, State, and Federal agencies.

When water levels rise into the exclusive flood control pool at Glendo Reservoir, the flood control operation of Glendo Dam is directed by the United States (U.S.) Army Corps of Engineers, Omaha District in Omaha, Nebraska.

Experience has proven that optimum utilization of the available water resources in the System can be achieved only through careful budgeting of the anticipated water supply. The technical end product of this budgeting process is an Annual Operating Plan (AOP).

The System is operated on a water year basis (October 1 through September 30). Early in the water year (WY) an AOP is prepared, reviewed, and presented to the public. The AOP consists of three operation studies using reasonable minimum, reasonable maximum, and most probable inflow conditions determined from statistical analysis of historical inflow conditions. The AOP, as developed and reflected in the three operation studies, provides the flexibility to adjust operations as conditions change during the water year. Reclamation makes use of computer programs to revise and adjust the operating plan each month to reflect changing conditions. A computerized process of forecasting the anticipated water supply also aids the revision process during the months of February, March, April, and May. Figure 1 depicts North Platte Reservoirs Total Storage end of September content for water years 1912 through 2022. Table 2 depicts A Summary of Reservoir Storage Content for WY2022 (end of month (EOM)).

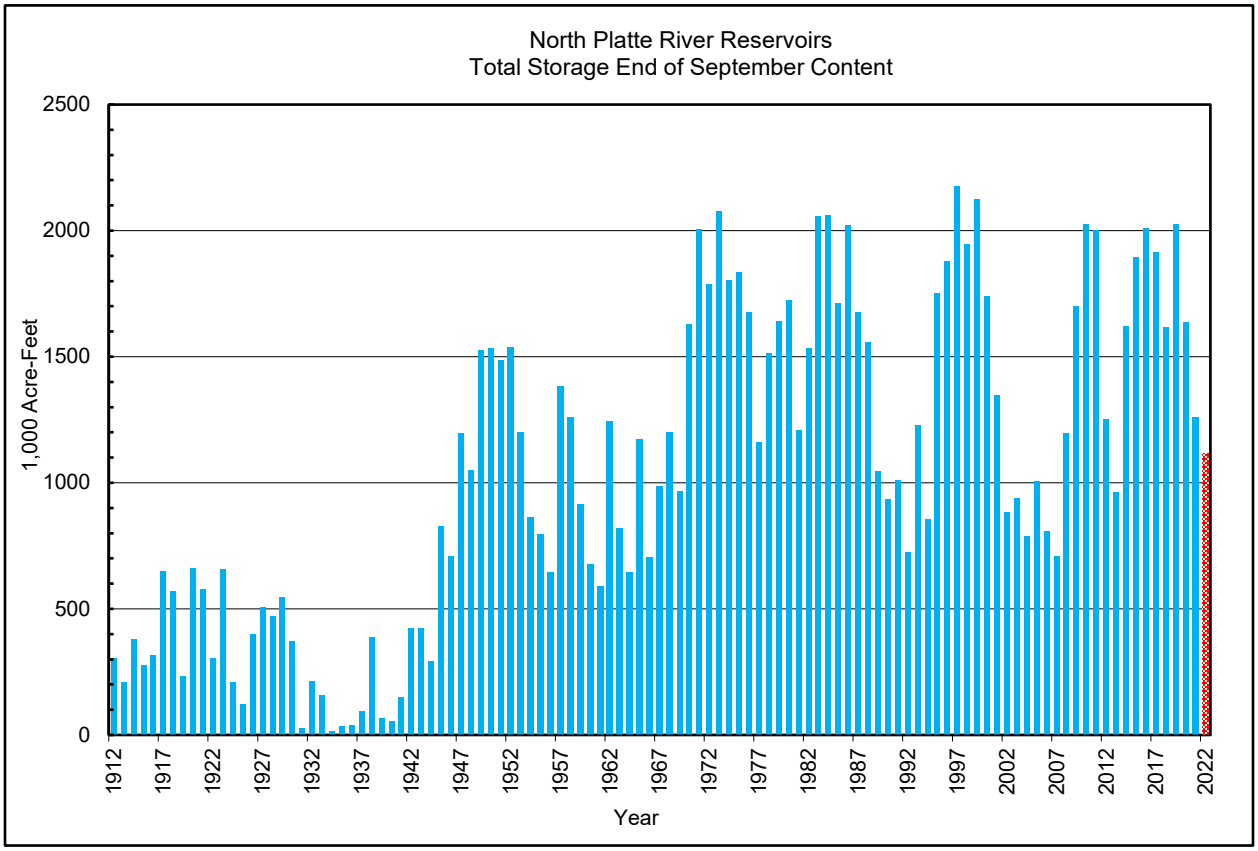

Figure 1.—North Platte River Reservoirs total storage end of September content (1912-2022).

Table 2.—Summary of reservoir storage content for WY 2022 (EOM). units of AF

-	October	November	December	January	February	March	April	May	June	July	August	September
Seminoe Reservoir												
Storage	315,164	309,614	296,897	287,309	279,825	291,102	327,642	437,538	539,271	544,662	525,255	498,296
Record[1]	24	24	24	24	24	26	24	23	23	22	21	21
Pathfinder Reservoir												
Storage	635,506	638,761	641,250	648,769	654,299	665,156	653,190	702,489	645,627	479,945	343,734	297,762
Record[1]	16	16	15	15	15	15	17	17	18	20	21	23
Alcova Reservoir[3]												
Storage	157,487	157,328	157,328	157,351	157,306	156,696	180,327	180,718	180,816	180,840	180,645	181,477
Record[1]	13	2	3	1	4	22	9	7	14	9	15	1
Glendo Reservoir												
Storage	185,382	224,374	249,783	287,020	317,824	360,384	427,891	419,413	381,596	270,634	126,717	127,195
Record[1]	11	11	14	15	18	19	18	24	27	21	19	16
Guernsey Reservoir												
Storage	0	0	0	0	0	1,619	5,336	29,113	27,320	26,221	29,253	3,685
Record[1]	29	29	29	29	29	29	30	17	28	21	10	18
Total System[2]												
Storage	1,299,874	1,336,367	1,351,570	1,386,680	1,415,460	1,481,459	1,600,680	1,775,634	1,780,991	1,508,632	1,211,956	1,114,379
Record[1]	18	18	19	19	19	19	20	19	20	21	22	22

[1] Record high from the 30-year period 1993-2022
[2] Total North Platte system includes storage in Seminoe, Kortes, Pathfinder, Alcova, Gray Reef, Glendo and Guernsey Reservoirs
[3] Alcova Reservoir is normally maintained within either a winter operating range (between contents of 153,802 AF to 158,302 AF) or a summer operating range (between contents 177,070 AF to 181,943 AF)

System Operations Water Year 2022

Seminoe Reservoir Inflow

Seminoe Reservoir inflows were below the 30-year average for all of WY 2022. A total of 746,903 acre-feet (AF) or 77 percent of the 30-year average entered the system above Seminoe Reservoir during the water year. The monthly inflows ranged from a high of 95 percent of average in November to a low of 49 percent in September 2022. The actual April through July inflow totaled 547,364 AF, which was 76 percent of the 30-year average of 963,400 AF. The Seminoe Reservoir computed inflow peaked for the water year on June 13, 2022, at 5,259 cubic feet per second (cfs). Figure 2 depicts a comparison of average, WY 2021, and WY 2022 monthly inflows.

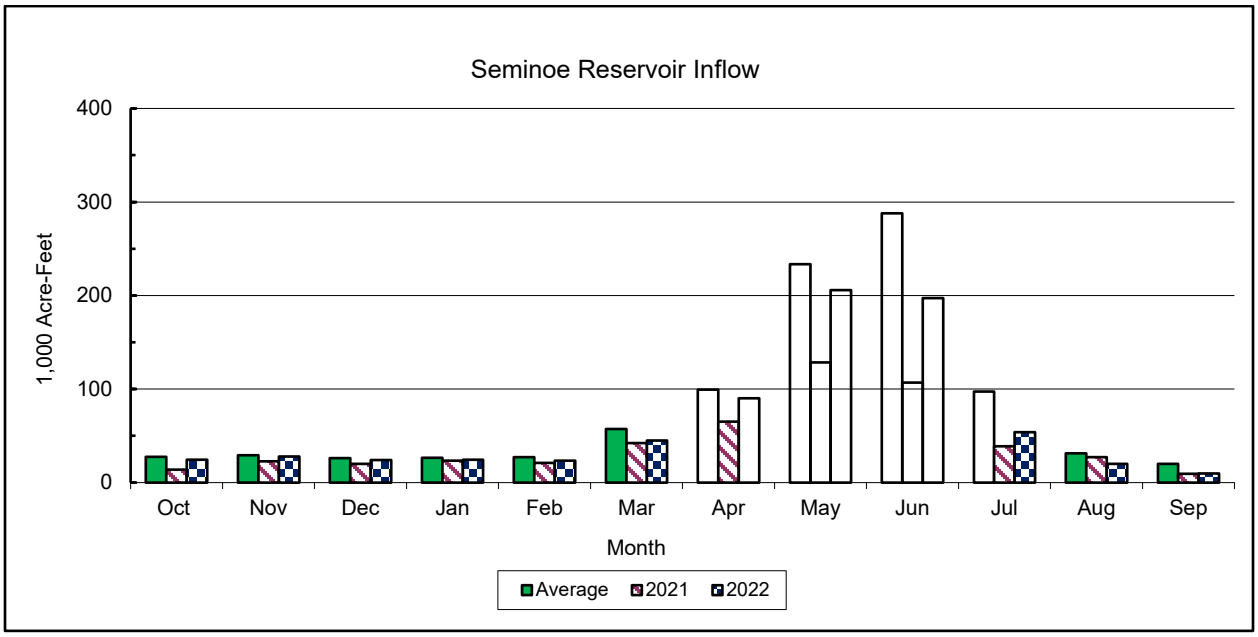

Figure 2.—Seminoe Reservoir inflow.

Seminoe Reservoir Storage and Releases

Seminoe Dam and Reservoir on the North Platte River is the main storage facility for the Kendrick Project. Construction of the dam was completed in 1939, providing a storage capacity of 1,017,273 AF. The powerplant contains three electrical generating units with a total capacity of 42 megawatts (MW) at a full release capability of about 4,050 cfs. The spillway consists of a concrete-lined tunnel through the right abutment controlled by three fixed-wheel gates with a release capability of close to 48,000 cfs. Two 60-inch jet flow valves provide a low-level river outlet with a flow capacity of 3,420 cfs.

At the start of WY 2022 Seminoe Reservoir had a storage content of 324,953 AF, which was 53 percent of average and 32 percent of capacity. At the end of WY 2022 Seminoe Reservoir storage content was 498,296 AF, 81 percent of average and 49 percent of capacity. See Figure 3 for a comparison of average, WY 2021, and WY 2022 monthly storage.

Table 3 shows the average monthly release in cfs for WY 2022 as well as the yearly maximum (max) release. Table 4 shows the reservoir storage allocations for Seminoe. Tables 5 through 7 depict 2022 operations for Seminoe Reservoir.

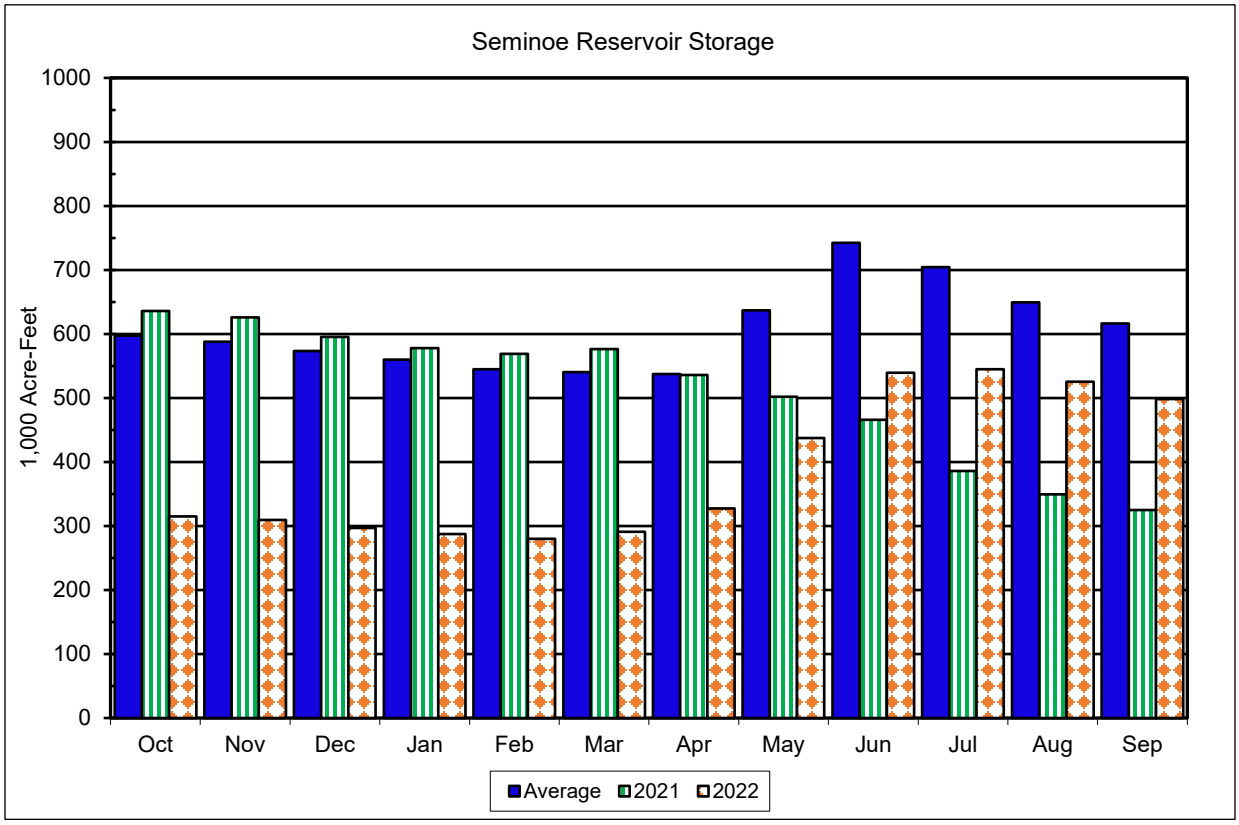

Figure 3.—Seminoe Reservoir storage.

Table 3.—Seminoe Releases for 2022

Seminoe Release	Average Release (CFS)	WY 2022 Monthly Release (CFS)	WY 2022 Maximum Release
October	591	541	549
November	633	543	556
December	644	577	1,651 December 21, 2021
January	634	550	611
February	743	544	559
March	973	542	551
April	1,673	882	1,576 April 28, 2022[1]
	2,115	1,513	1,539
June	2,945	1,509	1,528
July	2,071	678	1,502
August	1,290	542	552
September	816	553	730

[1] April 28 was the natural release peak outflow. December 21 was a maintenance test operational release.

Table 4. —Seminoe Reservoir storage allocations

Reservoir Allocations	Elevation (FT)	Storage (AF)	Storage Allocation (AF)
Top of Inactive and Dead	6239.00	31,670	31,670
Top of Active Conservation	6357.00	1,017,273	985,603
Crest of Dam (without Camber)	6361.00	N/A	N/A

Table 5. —Seminoe Reservoir Water Year storage data

Storage-Elevation Data	Elevation (FT)	Storage (AF)	Date
Beginning of Water Year	6305.94	324,199	Sep 30, 2021, [2]
End of Water Year	6323.66	498,296	30-Sep-22
Annual Low	6300.20	278,540	13-Mar-22
Historic Low [1]	6253.30	56,390	20-Apr-61
Annual High	6327.78	547,372	13-Jul-22
Historic High [1]	6359.29	1,073,050	20-Jun-49

[1] The daily records for this table are only available from Water Year 1946.
[2] Represents 0001 hours on October 1

Table 6. —Seminoe Reservoir water year inflow and outflow data

Inflow-Outflow Data	Inflow [1]	Date	Outflow	Date
Annual Total (AF)	746,903	Oct '21 – Sep '22	541,660	Oct '21 – Sep '22
Daily Peak (CFS)[2]	5,259	13-Jun-22	1,651	21-Dec-21
Daily Minimum (CFS)[2]	12	9-Sep-22	506	6-Jan-22

[1] Inflows are a computed number.
[2] Daily peak and minimum are releases to the river.

Table 7.—Monthly computed inflows, outflows, and contents for Seminoe Reservoir, Water Year 2022

Month	Inflow (KAF)	Inflow percent of average [1]	Outflow (KAF)	Outflow percent of average [1]	Content (KAF) [2]	Content percent of average [1, 2]
October	24.6	89	33.3	92	315.2	53
November	28.0	95	32.3	86	309.6	53
December	24.1	93	35.5	90	296.9	52
January	24.5	93	33.8	87	287.3	51
February	23.6	87	30.2	73	279.8	51
March	44.9	78	33.3	56	291.1	54
April	90.2	91	52.5	53	327.6	61
May	205.8	88	93.0	72	437.5	69
June	197.3	69	89.8	51	539.3	73
July	54.0	55	41.7	33	544.7	77
August	20.0	64	33.3	42	525.3	81
September	9.8	49	32.9	68	498.3	81
Annual	**746.9**	**78**	**541.7**	**59**	**N/A**	**N/A**

[1] The 30-year average is the period (1993-2022)
[2] End of month

Kortes Reservoir Storage and Releases

Completed in 1951, Kortes Dam, Reservoir, and Powerplant of the Kortes Unit (PS-MBP) are located about 2 miles below Seminoe Dam. It was the first unit initiated by Reclamation under the Missouri River Basin Project. Kortes Reservoir provides a total storage capacity of 4,739 AF at elevation 6,142.0 feet, the level of the spillway crest. Kortes Powerplant has three electrical generating units with a total capacity of 40 MW and a release capability of approximately 2,700 cfs. Water released from Seminoe Dam to Pathfinder Reservoir passes through the Kortes turbines to generate power. Maximum benefits are obtained when Kortes Reservoir remains full, and the power releases are coordinated with those from Seminoe Powerplant to maintain a full reservoir.

The spillway on the right abutment consists of an uncontrolled crest with a concrete-lined tunnel and has a capacity of 50,000 cfs.

Senate Bill 2553, passed in the ninetieth Congress, authorized the modification of the operation of Kortes Dam and Powerplant to provide a minimum streamflow of 500 cfs in the North Platte River between Kortes Reservoir and the normal headwaters of Pathfinder Reservoir. The minimum flow permits maintenance of a fishery in a stretch of the North Platte River commonly referred to as the "Miracle Mile".

Kortes releases averaged approximately 540 cfs from October 2021 to April 20, 2022. A peak flow rate of 1656 cfs averaged for the day occurred on December 21, 2021, for black start testing purposes. On April 20, 2022, flows increased to approximately 1,500 cfs through July 04, 2022. From July 05, 2022, until September 30, 2022, flows again averaged approximately 540 cfs, being the winter flow rate.

Gains to the North Platte River from Kortes Dam to Pathfinder Dam

Kortes Dam to Pathfinder Dam River gains were well below average nearly all of WY 2022 but were also higher than WY 2021. The Kortes Dam to Pathfinder Dam River gains ranged from 163 percent of average in July 2022 to 52 percent of average in December 2021. The total river gains were 25,579 AF, 25 percent of the 30-year average of 103,300 AF. Figure 4 depicts a comparison of average, WY 2021, and WY 2022 monthly river gains.

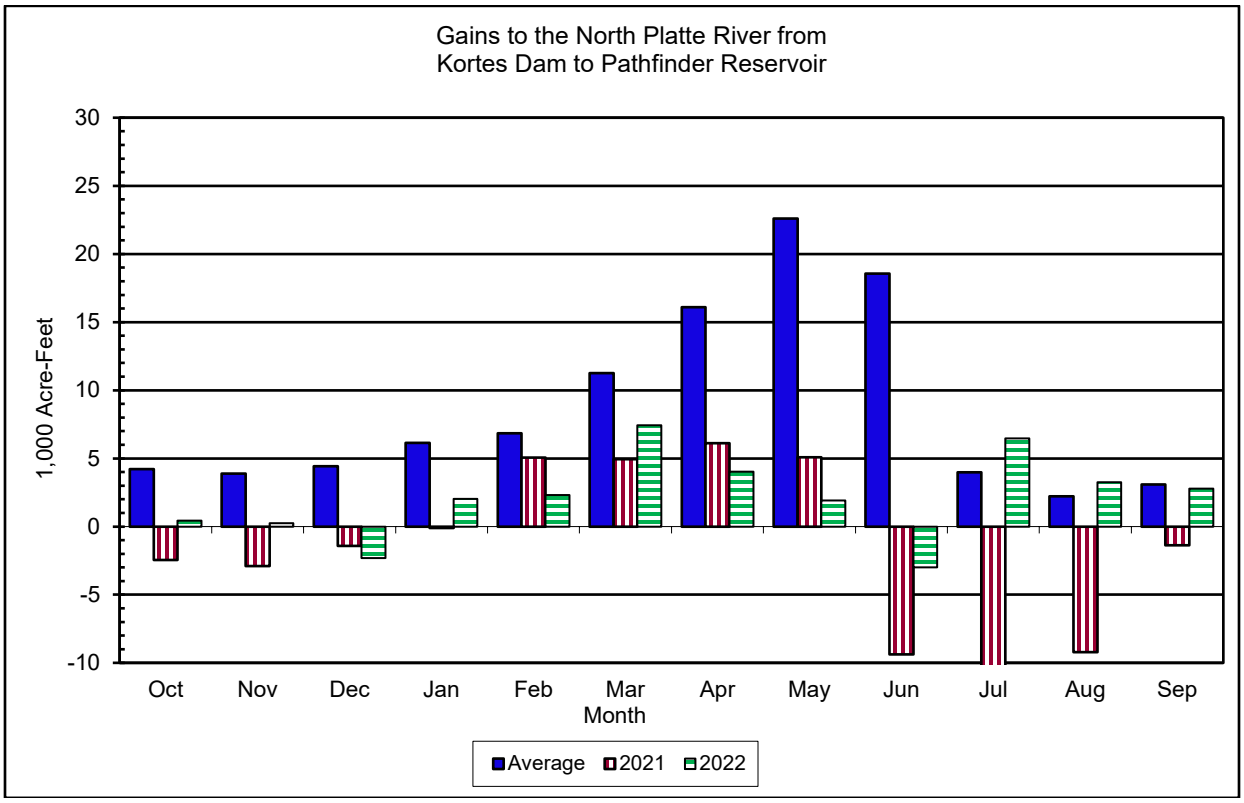

Figure 4.—Gains to the North Platte River from Kortes Dam to Pathfinder Reservoir.

Pathfinder Reservoir Storage and Releases

Pathfinder Dam and Reservoir, a major storage facility of the North Platte Project, has a total capacity of 1,070,000 AF at elevation 5,852.49 feet. Construction of the dam was completed in 1909. Operationally, this structure is a bottleneck in the System with its maximum non-spillway release capability of approximately 6,000 cfs. The rated capacity of the left abutment outlet works through the two 60-inch jet flow gates is approximately 3,000 cfs at elevation 5,852.49 feet. The flow capacity range of the 30-inch jet flow gate is from approximately 50 to 450 cfs. Depending on the elevation of the reservoir, as much as 3,080 cfs can be released through the Fremont Canyon Power conduit and discharged from the Fremont Canyon turbines at the powerplant, three miles downstream. Re-conditioning of Unit 2 of the Fremont Canyon Powerplant was completed in August 2012. Re-conditioning of Unit 1 was completed late July 2013. The 33.4 MW nameplate rating of the two units has not changed. Total nameplate rating of these two units is 66.8 MW.

Reconstruction of the Pathfinder spillway was completed in 2012. The spillway crest was raised approximately 2.4 feet to elevation 5852.49. The crest of the uncontrolled spillway on the left abutment of the dam was reconfigured from a flat-crested natural rock weir to an ogee-crested concrete weir. A spill occurs any time the reservoir water surface exceeds elevation

5,852.49 feet. The calculated discharge capacity of the spillway is 32,449 cfs at reservoir elevation 5,858.10 feet.

At the start of WY 2022, storage in Pathfinder Reservoir was 610,131 AF, 117 percent of average and 57 percent of capacity. Although WY 2022 was a low inflow year, Pathfinder storage continued to adjust from above average storage in WY 2021 because Seminoe had been lowered to conduct the full travel gate test. The maximum Pathfinder Reservoir content for the water year peaked on June 08, 2022, at 712,977 AF, 66 percent of capacity. The water year ended with 297,762 AF of water in storage in Pathfinder Reservoir, 56 percent of average and 28 percent of capacity. At the request of the Wyoming Game and Fish Department a year-round flow of 75 cfs was provided to the river below Pathfinder Dam. The 75 cfs minimum flow is provided through the 30-inch jet-flow valve, except when the 60-inch jet-flow valve is needed to supplement Fremont Canyon releases for required irrigation deliveries. The river below Pathfinder Dam reached a maximum flow of 994 cfs on July 26, 2022. Figure 5 depicts a summary of Pathfinder Reservoir storage for average, WY 2021, and WY 2022.

Table 8 shows the reservoir storage allocations for Pathfinder. Tables 9 through 11 depict 2022 operations for Pathfinder Reservoir.

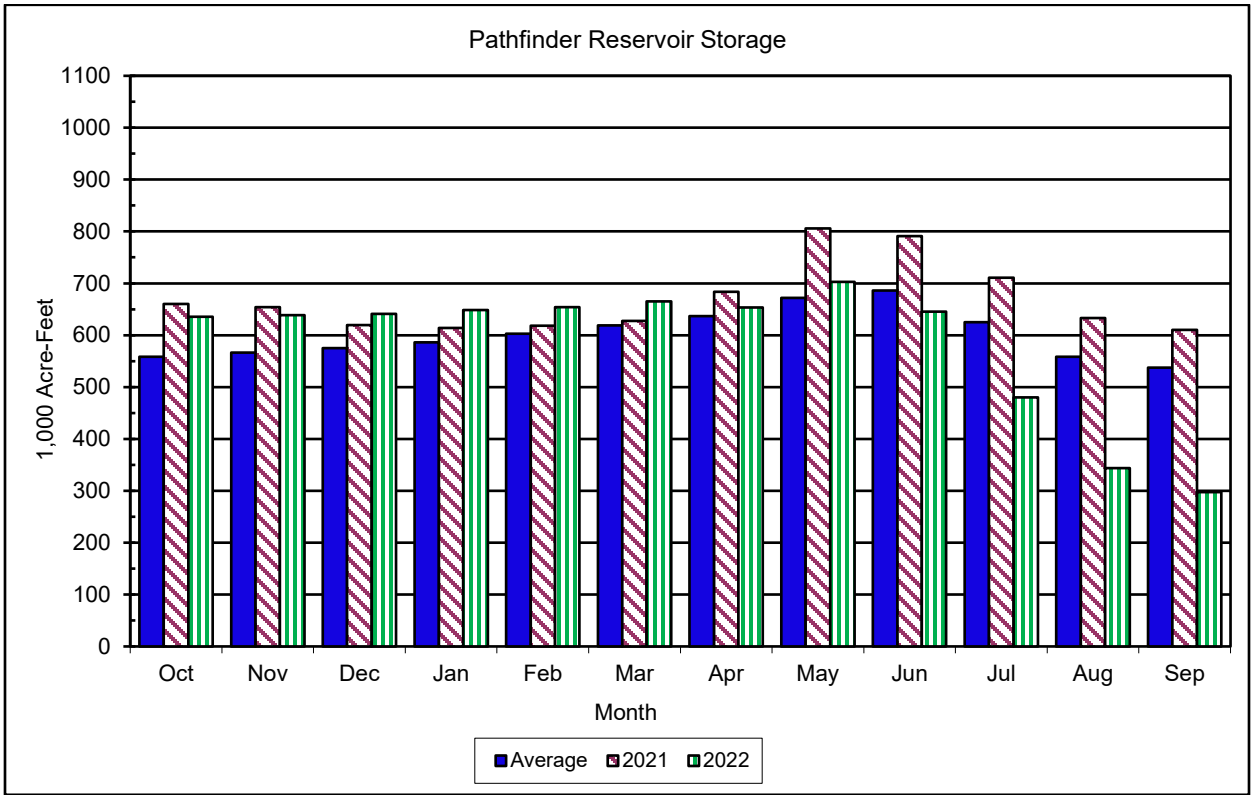

Figure 5.—Pathfinder monthly reservoir storage.

Table 8. —Pathfinder Reservoir storage allocations

Reservoir allocations	Elevation (FT)	Storage (AF)	Storage allocation (AF)
Top of Inactive	5746.00	31,405	31,405
Top of Active Conservation	5852.49	1,070,000	1,038,595
Crest of Dam (without Camber)	5858.10	N/A	N/A

Table 9. —Pathfinder Reservoir water year storage data

Storage-elevation data	Elevation (FT)	Storage (AF)	Date
Beginning of Water Year	5,828.14	610,131	Sep 30, 2021, [2]
End of Water Year	5,800.06	297,762	30-Sep-22
Annual Low	5,800.02	297,437	29-Sep-22
Historic Low [2, 3]	5,690.00	0	Sep 9, 1958
Annual High	5,834.58	712,977	8-Jun-22
Historic High [1]	5,853.49	1,093,275	2-Jun-16

[1] Daily records for this table are only available from water year 1946.
[2] From September 1958 through January 1959, Pathfinder Reservoir was drained for construction of Fremont Canyon tunnel.
[3] Represents 0001 hours on October 1.

Table 10. —Pathfinder Reservoir water year inflow and outflow data

Inflow-outflow data	Inflow	Date	Outflow[1]	Date
Annual Total (AF)	566,997	Oct. '21 – Sep. '22	833,946	Oct. '21 – Sep. '22
Daily Peak (CFS)	2,032	May 3, 2022	3,457	Jul 28, 2022
Daily Minimum (CFS)	3	Oct 11, 2021	17	Oct 18, 2021

[1] At the request of the Wyoming Game and Fish Department a yearly, minimum flow of 75 cfs will be provided through the Pathfinder Reservoir 30-inch jet-flow valve to the river below Pathfinder Dam. Daily calculated outflow may vary based on heavily wind forced forebay. Minimum flow of 62 cfs was measured at the river gage below the dam.

Table 11.—Monthly computed inflows, outflows, and contents for Pathfinder Reservoir, Water Year 2022

Month	Gain from Kortes (KAF)	Gain from Kortes percent of average[1]	Inflow (KAF)[2]	Inflow[2] percent of average[1]	Outflow (KAF)	Outflow percent of average[1]	Content[4] (KAF)	Content[4] percent of average[1]
October	0.4	10	33.7	83	5.8	44	635.5	114
November	0.3	7	32.6	78	27.0	85	638.8	113
December	-2.3	-52	33.1	75	28.1	82	641.3	111
January	2.0	33	35.9	80	27.8	85	648.8	111
February	2.3	34	32.5	68	25.1	83	654.3	108
March	7.4	66	40.7	57	29.3	55	665.2	107
April	4.0	25	56.5	49	66.2	71	653.2	103
May	1.9	8	94.9	62	39.4	35	702.5	105
June[3]	-3.0	-16	86.8	45	134.8	79	645.6	94
July	6.5	163	48.1	37	205.1	112	479.9	77
August	3.2	146	36.5	45	167.0	119	343.7	62
September	2.8	90	35.6	69	78.5	117	297.8	55
Annual	**25.6**	**25**	**567.0**	**56**	**833.9**	**87**	**N/A**	**N/A**

[1] 30-year average is the period (1993-2022)
[2] The inflow includes the gain from Kortes Dam to Pathfinder Dam.
[3] Represents a negative number that makes the percentage meaningless.
[4] End of month

Alcova and Gray Reef Reservoirs Storage and Releases

Alcova Dam and Reservoir is part of the Kendrick Project. The dam serves as a diversion dam for the Casper Canal and the reservoir as a forebay for the Alcova Powerplant. The dam, located about 10 miles downstream from Pathfinder Dam, was completed in 1938. Reservoir storage capacity is about 184,405 AF at elevation 5500, of which only the top 30,603 AF is active capacity available for irrigation of the Kendrick Project. The powerplant consists of two electrical generating units with a total installed capacity of 36 MW at a full release capability of about 4,100 cfs. The spillway is a concrete lined open channel in the left abutment of the dam controlled by three 25- by 40-foot gates with a capacity of 55,000 cfs at a reservoir level of 5,500 feet. The reservoir is typically operated during the irrigation season, May through September, at a level of 5,498 feet and at 5,488 feet msl for the remainder of the year. A higher operating level is maintained during the summer months to provide adequate head on the Casper Canal while the lower winter operating level reduces the potential for ice damage to the canal gate.

Alcova Reservoir was drawn down to about 5,488 ft from October 25, 2021, to April 03, 2022. This is considered normal winter operations. Alcova Reservoir return to summer operating level was initiated on April 1, 2022. The water surface elevation was raised to about elevation 5,498 feet on April 24, 2022, and the reservoir was maintained within one foot of elevation 5,498 feet throughout the irrigation season.

Gray Reef Dam and Reservoir is part of the Glendo Unit, Oregon Trail Division, PS-MBP. The dam, completed in 1961, is a three-zoned rock and earth fill structure located about 2.5 miles below Alcova Dam. The reservoir has an active capacity of 1,744 AF. Gray Reef Reservoir is operated to re-regulate widely fluctuating water releases from the Alcova Powerplant and provide stable flow for irrigation, municipal, industrial, and fish and wildlife interests along the 147 miles of river between Alcova and Glendo Dams.

Gray Reef releases started WY 2022 at average winter releases of approximately 500 cfs. On October 8, 2022, releases were decreased below normal throughout the remainder of the winter season at approximately 450 cfs to avoid excess releases at Glendo Reservoir. A fish flush with average daily flows of approximately 1,370 cfs was conducted from March 31 to April 08, 2022, at the request of Wyoming Game and Fish. Flows were then returned to 450 cfs. Flows were increased to approximately 500 cfs on April 20, 2022. Flows were then gradually increased to 3,000 cfs by June 22, 2022. On August 04, 2022, flows were reduced to 2,600 cfs, then reduced again to 2,000 cfs on August 10, 2022. Flows were then increased to 2,500 cfs on August 17, 2022, and remained there until September 8, 2022, when flows were gradually reduced to 500 cfs being the normal winter operating release. The largest daily release of water for the water year occurred on June 29, 2022, at 3,007 cfs.

Gains to the North Platte River from Alcova Dam to Glendo Reservoir

Total river gains from Alcova Dam to Glendo Reservoir were below average for WY 22. Only gains in January were above average. August was especially low at 0.2 kaf being seven percent of average. The highest volume gain month was May with 35.0 kaf at 48 percent of average. The April through July gain was 80,700 AF, which was 55 percent of average. The maximum computed daily river gain of 1,010 cfs occurred on April 30, 2022, and the daily computed Glendo Reservoir inflow peaked on August 01, 2022, at 4,154 cfs. Figure 6 depicts a comparison of average, WY 2021, and WY 2022 monthly river gains.

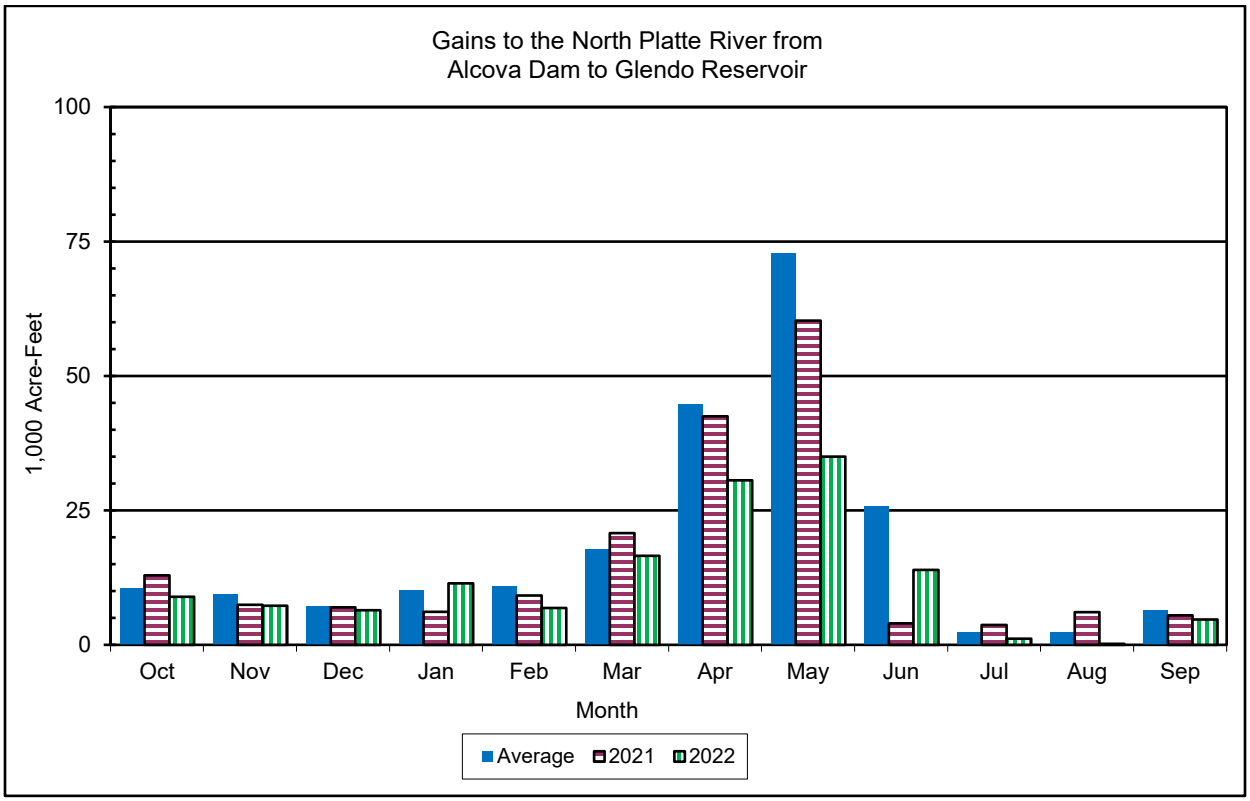

Figure 6.—Gains to the North Platte River from Alcova Dam to Glendo Reservoir

Glendo Reservoir Storage and Releases

Glendo Dam and Reservoir is the only storage facility for the Glendo Unit. The reservoir has a storage capacity of 763,039 AF, including 271,017 AF allocated to flood control. Glendo Powerplant consists of two electrical generating units, with a total installed capacity of 38 MW. With both generating units operating at capacity and the reservoir water surface at elevation 4,635.0 feet, approximately 3,400 cfs can be released through Glendo Powerplant. The reinforced concrete spillway has an ungated ogee crest. The spillway capacity at elevation 4,669.0 feet (6 feet below the crest of the dam) is 10,335 cfs.

The outlet works from Glendo Dam consist of the primary outlet works that discharge at the powerplant and the low-flow outlet that discharges to the river immediately below the dam. The three primary outlet gates can release a combined discharge of 13,000 cfs with the powerplant shut down. During normal operation, when the reservoir elevation is below the top of conservation storage (4,635 feet), outlet works discharges should typically remain below 5,500 cfs. This precautionary practice is to minimize the potential for damage to the stilling basin and training walls. The low-flow outlet works are operated to maintain a continuous release of approximately 25 cfs. This provides a reliable water source for the downstream wetland area that results in associated fish and wildlife benefits. In the summer of 2015, the dam was raised three feet with a parapet wall, and the dikes on the south side of the reservoir were raised 6 feet.

Glendo Reservoir storage was 138,438 AF at the beginning of WY 2022, 104 percent of average and 28 percent of the active conservation of 492,022 AF. Water releases from Glendo Reservoir were initiated on May 04, 2022, to fill the Inland Lakes. The reservoir reached a maximum storage for the year of 448,401 AF (elevation 4631.22) on May 14, 2022. At the end of the water year, Glendo Reservoir contained 127,195 AF of water (water surface elevation 4590.17), 95 percent of average and 26 percent of top of active conservation. Figure 7 depicts WY 2021 and WY 2022 end of month (EOM) reservoir storage compared to average. Table 12 shows the reservoir storage allocations for Glendo. Tables 13 through 15 depict 2022 operations for Glendo Reservoir.

Water releases were completely shut for the winter season of WY 2022, including low flow and only consisted of leakage. This was due to construction of the Guernsey Roller Mounted Intake Gate in which the Guernsey pool was maintained empty throughout winter. Low flow releases from Glendo Reservoir were initiated on March 17, 2022.

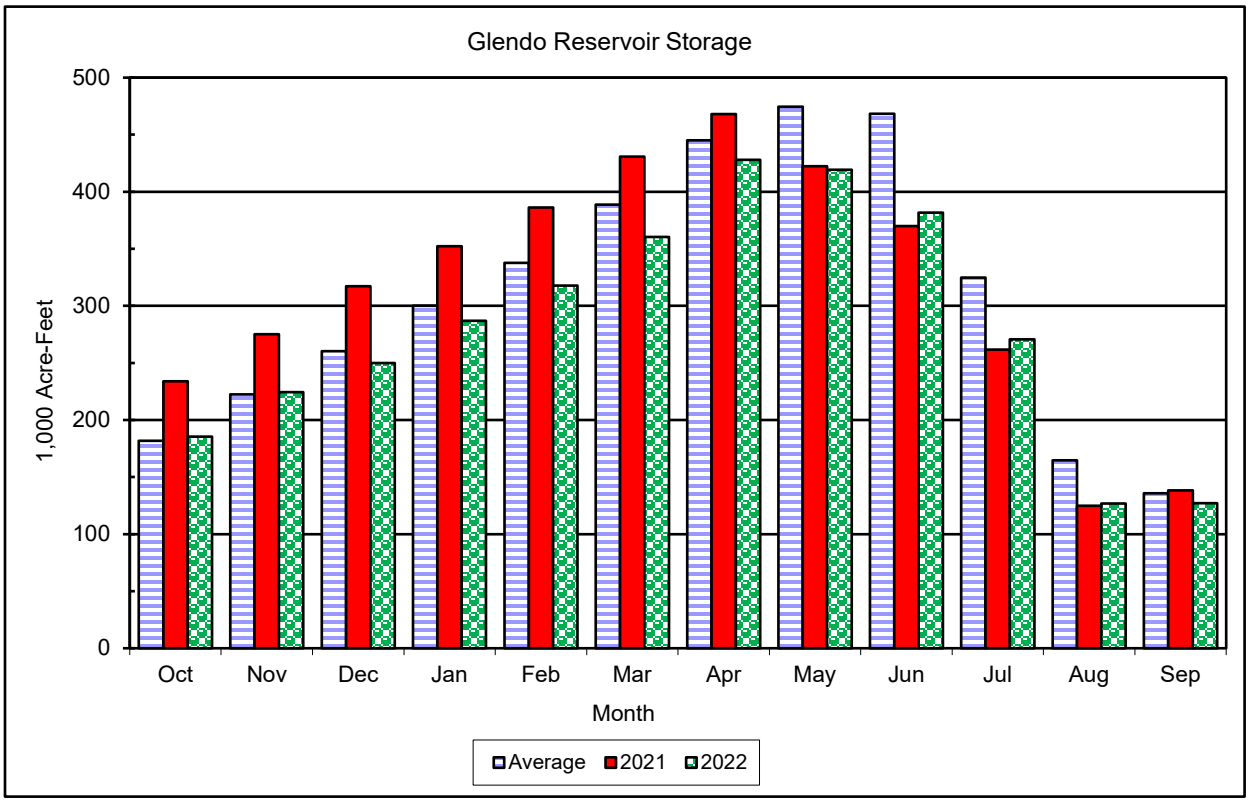

Figure 7.—Glendo Reservoir monthly storage.

Table 12. —Glendo Reservoir storage allocations

Reservoir Allocations	Elevation (FT)	Storage (AF)	Storage Allocation (AF)
Top of Inactive	4,570.00	51,573	51,573
Top of Active Conservation	4,635.00	492,022	440,449
Top of Exclusive Flood Control	4,653.00	763,039	271,017
Maximum Water Surface (Surcharge)	4,669.00	1,092,290	329,251
Crest of Dam (without Camber)	4,675.00	N/A	N/A

Table 13.—Glendo Reservoir water year storage data

Storage-Elevation Data	Elevation (FT)	Storage (AF)	Date
Beginning of Water Year	4,592.44	138,438	Sep 30, 2021[2]
End of Water Year	4,590.17	127,195	Sep 30, 2022
Annual Low	4,584.26	100,887	Sep 7, 2022
Historic Low	4,548.10	15,140	Sep 28,1966
Annual High	4,631.22	448,401	May 14, 2022
Historic High	4,650.94	758,830	May 28, 1973

[1] Represents 0001 hours on October 1.

Table 14.—Glendo Reservoir water year inflow and outflow data

Inflow-Outflow Data	Inflow	Date	Outflow [1]	Date
Annual Total (AF)	904,034	Oct. '21 – Sep. '22	887,914	Oct. '21 – Sep. '22
Daily Peak (CFS)	4,154	Aug 1, 2022	7,480	Jul 25, 2022
Daily Minimum (CFS)	5	Dec 3, 2021	1	Oct 1, 2022
Peak Bypass Release (CFS)	N/A	N/A	3,902	Jul 28, 2022
Total Bypass Release (AF)	N/A	N/A	94277	Oct. '21 – Sep. '22

1 -Includes the average daily release of approximately 25 cfs from the low flow outlet works for Apr-Sep.
2 - A low flow outlet works was completed in 1993 to allow for a release of 25 cfs.

Table 15.—Monthly Computed inflows, outflows, and contents for Glendo Reservoir, WY 2022

Month	Gain from Alcova (KAF)	Gain from Alcova percentage of Average 1	Inflow3 (KAF)	Inflow3 percent of Average 1	Outflow (KAF)	Outflow percent of Average1, 2	Content4 (KAF)	Content4 percent of Average 1
October	9.0	86	47.9	118	0.1	0	185.4	33
November	7.3	78	39.3	95	0.1	0	224.4	40
December	6.4	89	26.5	60	0.1	0	249.8	43
January	11.4	112	38.8	86	0.1	0	287.0	49
February	6.9	63	31.1	65	0.1	0	317.8	53
March	16.6	93	44.8	63	0.9	2	360.4	58
April	30.6	68	72.4	63	1.8	2	427.9	67
May	35.0	48	63.0	41	68.3	61	419.4	62
June	13.9	54	114.0	59	146.3	85	381.6	56
July	1.1	48	175.8	134	281.2	153	270.6	43
August	0.2	7	166.5	204	307.2	219	126.7	23
September	5.1	79	84.0	163	81.9	122	127.2	24
Annual	143.4	65	904.0	89	887.9	92	N/A	N/A

1 30-year average is the period (1993-2022)
2 25-year average is the period (1994-2022) in 1993 a low flow valve was installed at Glendo Dam which allowed the release of 25 cfs during the non-irrigation season. Therefore, a 28-year average is used for the months of October through March.
3 Inflow include the gain from Alcova Dam to Glendo Dam.
4 End of month.

Gains to the North Platte River from Glendo Dam to Guernsey Reservoir

The river gains between Glendo Dam and Guernsey Dam during WY 2022 were below average for most of the year. August was well above average, but average is nearly zero. The Glendo Dam to Guernsey Reservoir River gains ranged from a high of 992 percent of average in July 2022 to a low of -1,036 (negative) percent in August 2022. On September 10, 2022, the daily computed gain to Guernsey Reservoir peaked at 632 cfs. Figure 8 depicts a comparison of average, WY 2021, and WY 2022 monthly river gains.

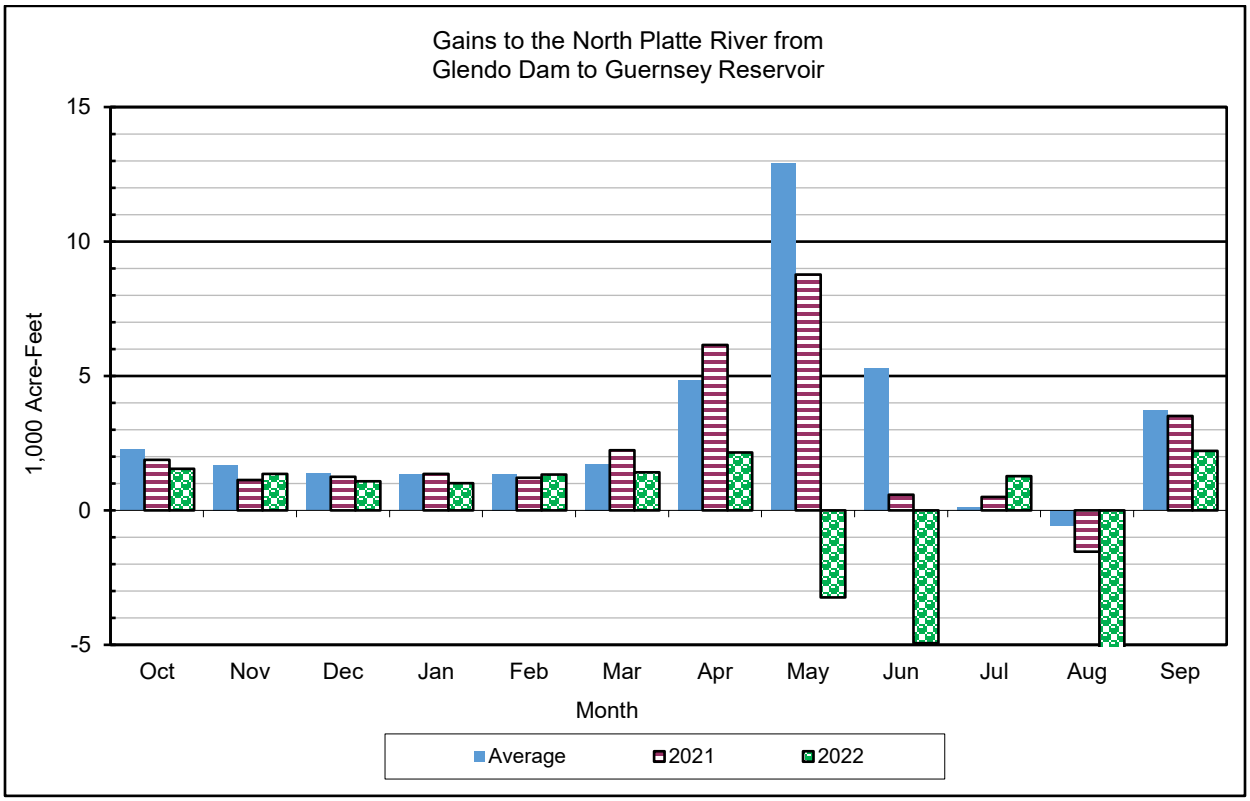

Figure 8.—Gains to the North Platte River from Glendo Dam to Guernsey Reservoir.

Guernsey Reservoir Storage and Releases

Guernsey Dam located about 25 miles below Glendo Dam, stores and re-regulates the flow of the river prior to delivery of storage water to project lands of the North Platte Project and Glendo Unit. Guernsey Powerplant, located on the right abutment of the dam, has two 3.2 MW electrical generating units with a combined release capability of about 1,340 cfs. The windings of both units have been replaced, resulting in the rating of 3.2 MW per unit. The north spillway gate, with a capacity of 50,000 cfs at a reservoir level of 4,420 feet, is used for irrigation releases to supplement the maximum powerplant releases.

The original capacity of the reservoir was 73,800 AF, but this has been greatly reduced by deposition of silt. Using data from the 1980 Sedimentation Survey of Guernsey Reservoir, the March 1982 - area capacity tables and curves show about 45,612 AF of available storage.

At the beginning of WY 2022, storage in Guernsey Reservoir was at zero AF to accommodate the Roller Mounted Intake Gate replacement project. The north spillway gate was held open throughout the winter to maintain the Guernsey Reservoir at zero AF. The gains from Glendo were passed downstream. Glendo releases were zero cfs to avoid excess loss. Guernsey Reservoir gates were shut on March 14 and began storage. Reclamation began Glendo releases on May 04, 2022, and Guernsey releases commenced on May 14, 2022, to move water into the

Inland Lakes. The annual "silt run" from the reservoir was initiated on July 05 and continued for 20 days. Reservoir storage was reduced to initiate the silt run and was maintained at a low level throughout the period. The minimum reservoir content during the silt run of 1,277 AF occurred on July 22, 2022. Following the silt run, the reservoir was refilled to approximately 28,000 AF. The releases from Guernsey Dam averaged 4,872 cfs from July 22 through August 31. Guernsey reservoir was lowered to allow storage of winter gains. The reservoir end of September storage was 3,685 AF and peaked at 29,634 AF on May 30, 2022. Guernsey releases were discontinued at the end of WY 2022. The Glendo low flow valve continued releases into WY 2023. See Figure 9 for WY 2021 and WY 2022 storage compared to average.

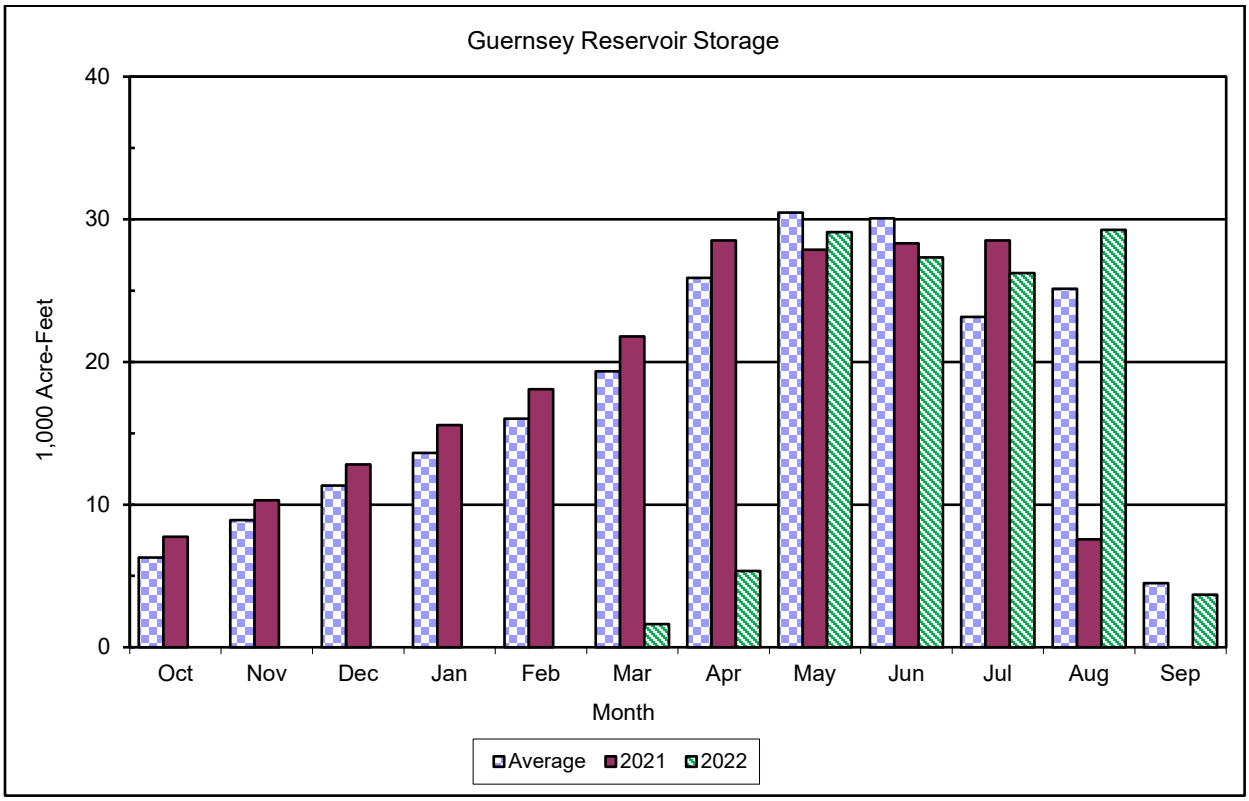

Figure 9.—Guernsey Reservoir monthly storage.

Precipitation Summary for Water Year 2022

Watershed precipitation in each basin is an average of precipitation readings using several stations as indicators. The 2022 precipitation was at or above average for most of the North Platte River Basin. Precipitation ranged from a high of 235 percent in December to a June low of 8 percent of average for Seminoe, Pathfinder, Glendo, and Guernsey.

The North Platte basin received the majority of its precipitation in October and May for WY 2022. Pathfinder basin precipitation had the lowest at 8 percent of average for June and 27 percent for November. The North Platte basin precipitation percent of average for March through June were as follows: Seminoe basin: 99, 76, 61, and 42 percent, Pathfinder basin: 133, 56, 126, and 8 percent, Glendo basin: 136, 90, 89, and 15 percent, and Guernsey basin: 62, 60, 72, and 16 percent. See Figure 10 for a comparison of average, WY 2021, and WY 2022 total precipitation.

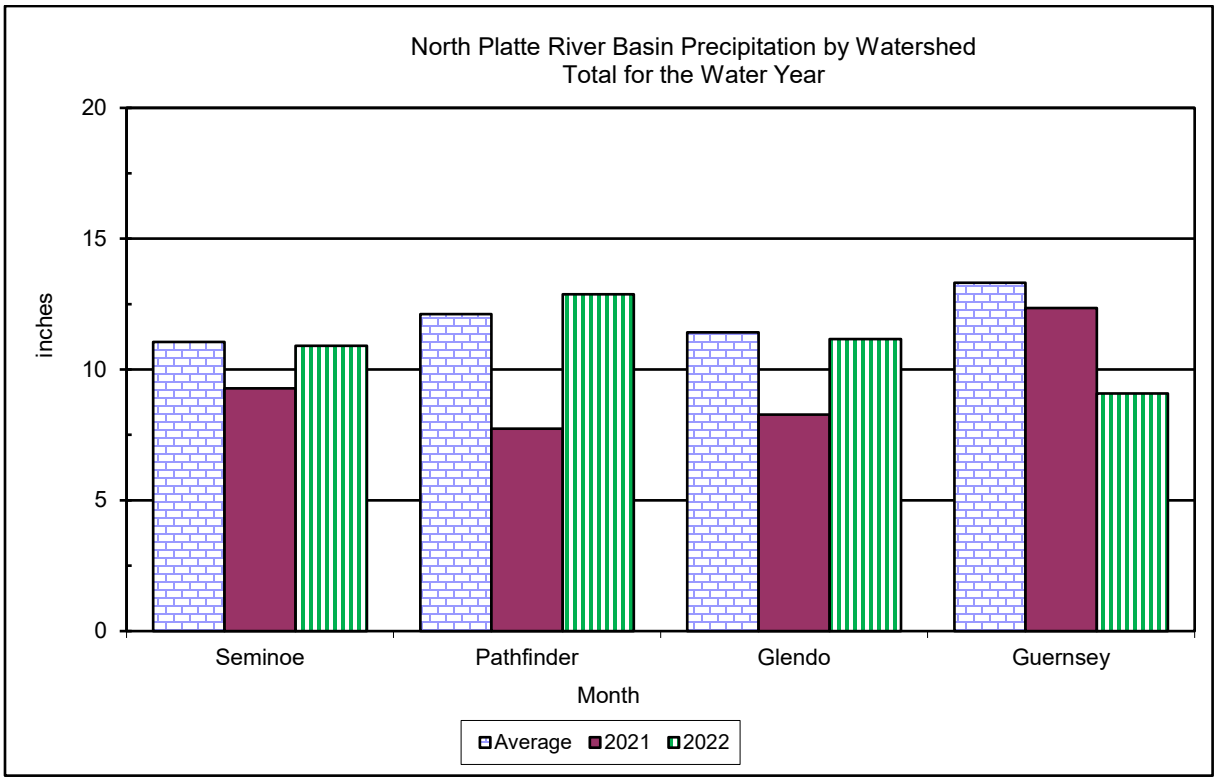

Figure 10.—North Platte River Basin precipitation by watershed. Total for Water Year 2022.

Snowpack Summary for Water Year 2022

Reclamation relies on the Natural Resource Conservation Service (NRCS) to provide snow water equivalent (SWE) information for the three PS-MBP drainage areas in which Reclamation forecasts snowmelt runoff. On February 1 the watershed percentage above Seminoe Reservoir SWE started at 76 percent of median, increased to 85 percent of median by April 1, and was at 93 percent of median on May 1. In the Sweetwater River watershed, the SWE started at 86 percent of median on February 1 with steady decreases through February and March, but April snow was above average resulting in 83 percent of median on May 1. Snow in the Alcova Dam to Glendo Reservoir watershed began at 80 percent of median on February 1 with steady increases in March and April and was at 110 percent of median on May 1. Table 16 shows a summary of snowpack for WY 2022.

Table 16.—North Platte snow water equivalent for Water Year 2022

Watershed	Feb 1 SWE	Feb 1 percent of median[1]	Mar 1 SWE	Mar 1 percent of median[1]	Apr 1 SWE[1]	Apr 1 percent of median[1]	May 1 SWE	May 1 percent of median[1]
Seminoe Reservoir	10.04	76	15.38	89	18.00	85	19.29	93
Pathfinder Reservoir	7.85	86	8.60	77	10.30	70	12.90	83
Glendo Reservoir	4.98	80	6.75	80	9.88	90	9.88	110

[1] Median is based on the 1991-2020 period.

Allocation for Water Year 2022

With just below average storage and only 66 percent of average April to July inflow an allocation was required. Initial allocation began on June 25, 2022.

Ownerships for Water Year 2022

Stored water that is held in accounts for various entities is referred to as their ownership. At the beginning of WY 2022, the North Platte Project ownership (includes North Platte Pathfinder and North Platte Guernsey), contained 152,481 AF of water, 35 percent of average. The Kendrick ownership contained 953,463 AF of water, 109 percent of average. The Glendo ownership contained 133,904 AF of water, 102 percent of average.

The total amount of water stored at the end of WY 2022 in the mainstem reservoirs for use in WY 2022 was 1,114,379 AF which was 76 percent of average.

At the end of WY 2022, the North Platte Project ownership (includes North Platte Pathfinder and North Platte Guernsey), contained 155,018 AF of water, 35 percent of average. The Glendo ownership contained 117,949 AF of water, 90 percent of average. The Kendrick ownership contained 832,002 AF, 94 percent of average. The Operational/Re-regulation water account contained 66 AF. Also stored in the North Platte storage system was 7,344 AF for the city of Cheyenne, and 2,000 AF for PacifiCorp. The Wyoming Water Development Commission used 7,173 AF in WY 2022. Wyoming Water Development Commission will have 8,000 AF available for use in WY 2023. See Figure 11 for the last two water years ownership carryover compared with the average carryover for the Kendrick, North Platte, and Glendo Projects. Table 18 shows a summary of ownership for WY 2022.

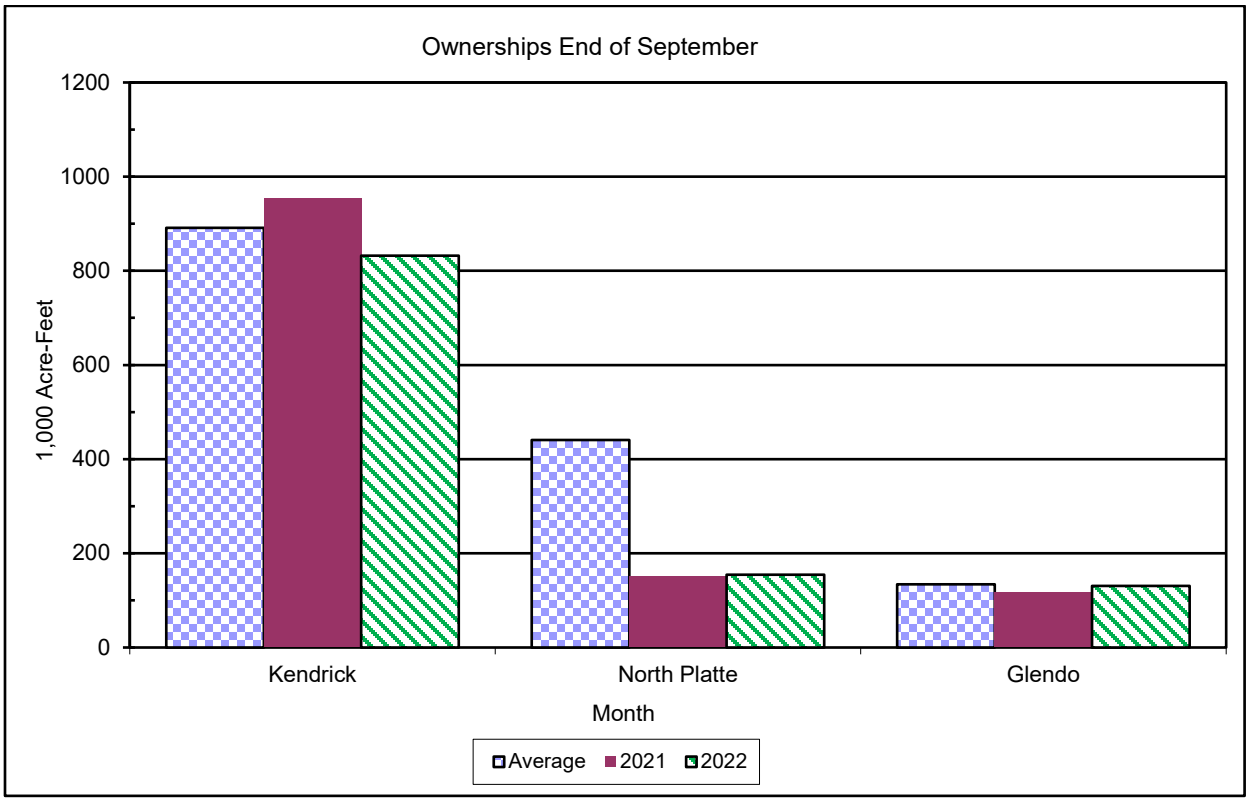

Figure 11.—Ownership at the end of September.

North Platte River Forecast 2022

Reservoir inflow forecasts are prepared at the first of February, March, April, and May to estimate the inflows expected for the April through July runoff period.

Runoff forecasts for the Seminoe Reservoir watershed, the Sweetwater River above Pathfinder Reservoir, and the North Platte River from Alcova Dam to Glendo Reservoir are based on SNOTEL and/or snow course sites, precipitation sites, and calculated inflows. Reclamation maintains a database consisting of historic monthly data for reservoir inflows, snow, and precipitation stations. WYAO staff coordinate with NRCS Portland, Oregon, office staff to exchange forecasted numbers. Reclamation and NRCS forecasts are then reviewed by WYAO management. All the information is considered and judgement is applied to result in a final forecast of reservoir inflow. The forecasted information is then made available to the public through a news release and used in updating monthly reservoir operating plans. Table 17 depicts a summary of the monthly forecasts for WY 2022. Tables 18 through 22 depict summaries of North Platte ownership, and operations for WY 2022.

Table 17.—Summary of forecasts of April-July runoff for Water Year 2022

Forecast Points	Feb 1 (KAF)	Feb 1 percent of Average	Mar 1 (KAF)	Mar 1 percent of Average	Apr 1 (KAF)	Apr 1 percent of Average	May 1 (KAF)	May 1 percent of Average	Actual (KAF)	Actual percent of Average[1]
Seminoe Reservoir	675	95	570	80	450	63	510[2]	72	547.4	76
Sweetwater River	45	84	40	75	35	66	35[3]	66	16.6	31
Alcova to Glendo	100	69	100	69	80	56	110[4]	76	80.7	55

[1] Average is based on the 1993-2022 period.
[2] The May 1 forecast includes actual April inflow of 90,249 acre-feet and was 419.8 May - July
[3] The May 1 forecast includes actual April inflow of 5,439 acre-feet and was 29.6 May - July
[4] The May 1 forecast includes actual April inflow of 30,589 acre-feet and was 79.4 May - July

Table 18.—Summary of North Platte River system ownership for Water Year 2022 (Acre-Feet)

Months	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Pathfinder Ownership														
Evaporation		-937	-913	-1,081	-259	-629	-563	-1,322	-4,895	-8,838	-9,684	-5,917	-2,672	**-37,710**
Accrual		34,874	33,056	13,784	24,994	22,646	49,806	93,147	207,841	97,609	0	0	0	**577,757**
Delivery		0	0	0	0	0	0	0	-73	0	-214,120	-254,852	-69,255	**-538,300**
PP&L payback		0	0	0	0	0	0	0	790	0	0	0	0	**790**
Evaporation payback										0	0			**0**
Re-Regulation transfer												0	0	**0**
Ownership total		186,418	218,561	231,264	255,999	278,016	327,259	419,084	622,747	711,518	487,714	226,945	155,018	
Actual Ownership	152,481	186,418	218,561	231,264	255,999	278,016	327,259	419,084	622,747	711,518	487,714	226,945	155,018	
Kendrick Ownership														
Evaporation		-2,549	-2,874	-3,103	-713	-1,597	-1,348	-2,677	-5,944	-8,949	-9,982	-8,694	-5,901	**-54,331**
Accrual		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Delivery		0	0	0	0	0	0	0	-7,115	-15,200	-18,972	-14,565	-11,278	**-67,130**
Delivery City of Casper												0		
Evaporation payback										0	0	0	0	**0**
Re-Regulation transfer							0	0	0	0	0		0	**0**
Ownership total		950,914	948,040	944,937	944,224	942,627	941,279	938,602	925,543	901,394	872,440	849,181	832,002	
Actual Ownership	953,463	950,914	948,040	944,937	944,224	942,627	941,279	938,602	925,543	901,394	872,440	849,181	832,002	
Glendo Ownership														
Evaporation		-1,363	-419	-966	-1,107	-142	-817	-1,715	-1,917	-3,252	-3,324	-2,989	-1,986	**-19,997**
Accrual		0	0	0	0	0	0	2,168	7,757	2,045	0	0	0	**11,970**
Delivery		0	0	0	0	0	0	0	0	-86	-12,514	-10,019	-7,382	**-30,001**
Evaporation payback									7,328	0	0	0	0	**7,328**
Ownership total		132,541	132,122	131,156	130,049	129,907	129,090	129,543	142,711	156,163	140,325	127,317	117,949	
Actual Ownership	133,904	132,541	132,122	131,156	130,049	129,907	129,090	129,543	157,456	156,163	140,325	127,317	117,949	
Guernsey Ownership														
Evaporation		0	0	-44	-190	-56	-295	-675	-849	-1,217	-2	0	0	**-3,328**
Accrual		0	0	6,374	11,383	6,823	17,250	2,272	0	0	0	0	0	**44,102**
Delivery		0	0	0	0	0	0	0	0	-39,722	0	0	0	**-39,722**
Evaporation payback									0	0	-1,052	0	0	**-1,052**
Re-Regulation transfer												0	0	**0**
Ownership total		0	0	6,330	17,523	24,290	41,245	42,842	41,993	1,054	0	0	0	
Actual Ownership	0	0	0	6,330	17,523	24,290	41,245	42,842	41,993	1,054	0	0	0	

Table 18.—Summary of North Platte River system ownership for Water Year 2022 (Acre-Feet)

Months	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Inland Lakes														
Evaporation		-15	-14	-86	-102	-28	-66	-262	-268	-10	0	0	0	**-851**
Accrual		8,891	7,190	0	0	0	0	28,197	0	0	0	0	0	**44,278**
Delivery		0	0	0	0	0	0	0	-31,857	-11,570	0	0	0	**-43,427**
Ownership total		8,876	16,052	15,966	15,864	15,836	15,770	43,705	11,580	0	0	0	0	
Actual Ownership	0	8,876	16,052	15,966	15,864	15,836	15,770	43,705	11,580	0	0	0	0	
City of Cheyenne														
Evaporation		-31	-24	-29	0	-15	-11	-41	-86	-64	-72	-71	-54	**-498**
Stored		716	597	623	1,350	1,782	2,080	568	4	1,200	381	825	1,119	**11,245**
Used		-105	-104	-223	-185	-4	0	-347	-8,187	-795	-504	-33	-234	**-10,721**
Ownership total		7,898	8,367	8,738	9,903	11,666	13,735	13,915	5,646	5,987	5,792	6,513	7,344	
Actual Ownership	7,318	7,898	8,367	8,738	9,903	11,666	13,735	13,915	5,646	5,987	5,792	6,513	7,344	
Pacific Corp (PP&L)														
Evaporation		-5	0	-7	-9	0	-6	-8	-18	-28	-30	-33	-30	**-174**
Accrual		0	0	0	0	0	0	0	59	28	30	33	30	**180**
Delivery		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Ownership total		1,995	1,995	1,988	1,979	1,979	1,973	1,965	2,000	2,000	2,000	2,000	2,000	
Actual Ownership	2,000	1,995	1,995	1,988	1,979	1,979	1,973	1,959	2,000	2,000	2,000	2,000	2,000	
WWDC Ownership														
Evaporation		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Accrual		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Delivery		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Ownership total		0	0	0	0	0	0	0	0	0	0	0	0	
Actual Ownership	0	0	0	0	0	0	0	0	0	0	0	0	0	
Operational Ownership														
Evaporation		-36	-1	-20	-26	0	-16	-51	-30	-41	-21	0	0	**-242**
Accrual		0	0	0	0	0	0	23	-139	0	0	0	66	**-50**
Delivery		0	0	0	0	0	0	0	0	-371	-2,493	-361	0	**-3,225**
Evaporation payback									-1,730	0	0	0	0	**-1,730**
Ownership total		5,699	5,698	5,678	5,652	5,652	5,636	5,608	3,709	2,875	361	0	66	
Actual Ownership	5,735	5,699	5,698	5,678	5,652	5,652	5,636	5,608	3,287	2,875	361	0	66	

Table 18.—Summary of North Platte River system ownership for Water Year 2022 (Acre-Feet)

Months	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
WWDC Ownership														
Evaporation		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Accrual		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Delivery		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Ownership total		0	0	0	0	0	0	0	0	0	0	0	0	
Actual Ownership	0	0	0	0	0	0	0	0	0	0	0	0	0	
Operational Ownership														
Evaporation		-36	-1	-20	-26	0	-16	-51	-30	-41	-21	0	0	**-242**
Accrual		0	0	0	0	0	0	23	-139	0	0	0	66	**-50**
Delivery		0	0	0	0	0	0	0	0	-371	-2,493	-361	0	**-3,225**
Evaporation payback									-1,730	0	0	0	0	**-1,730**
Ownership total		5,699	5,698	5,678	5,652	5,652	5,636	5,608	3,709	2,875	361	0	66	
Actual Ownership	5,735	5,699	5,698	5,678	5,652	5,652	5,636	5,608	3,287	2,875	361	0	66	
Re-Regulation Water														
Evaporation		-36	-1	-19	-26	0	-15	-50	-40	-46	0	0	0	**-233**
Accrual		0	0	0	0	0	0	0	0	0	0	0	0	**0**
Delivery		0	0	0	0	0	0	0	0	-5,336	0	0	0	**-5,336**
Evaporation Payback										0	0	0	0	**0**
Re-Regulation Transfer							0	0	0	0	0	0	0	**0**
Ownership total		5,533	5,532	5,513	5,487	5,487	5,472	5,422	5,382	0	0	0	0	
Actual Ownership	5,569	5,533	5,532	5,513	5,487	5,487	5,472	5,422	5,382	0	0	0	0	

A - In 1992, the Wyoming State Engineer granted an exchange which allows Pacific Power to exchange direct flows in the winter months (October through April) for direct flow in the summer months. During the winter months some direct flows which are available for storage under Pathfinder's storage right are not stored but instead are allowed to pass downstream for use by Pacific Power. In exchange, starting on May 1 Pacific Power allows some of its available direct flow to pass downstream to Glendo Reservoir to be stored as Pathfinder ownership. The exchange water was returned to Pathfinder at a rate of 26 AF daily starting on May 1, 2022, until May 31, 2022, when the last 10 AF of the exchange was returned.

B - Amounts shown as delivery are storage water only. Natural flow which was delivered is not shown in this table.

C - Transfer refers to Inland Lakes ownership water which was delivered from storage in Glendo or Guernsey Reservoirs. On May 14 through June 7, the amount transferred to the Inland Lakes was 43,427 AF.

D - Wyoming Water Development Commission (WWDC) used 7,173 AF of contract water from the State of Wyoming's Account in Glendo.

Table 19.—North Platte Water Year 2022 hydrologic operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Reservoir (Initial content: 325.0 KAF)														
Total Inflow	kaf	24.6	28.0	24.1	24.5	23.6	44.9	90.2	205.8	197.3	54.0	20.0	9.8	749.9
Total Inflow	cfs	400.0	470.6	392.1	398.9	425.1	729.8	1516.7	3,346.6	3,316.2	878.5	325.4	164.9	NA
Turbine Release	kaf	6.9	6.4	20.7	32.9	30.2	33.3	52.5	93.0	89.8	31.5	30.6	5.0	432.8
Jet Flow Release	kaf	26.4	25.9	14.8	0.9	0.0	0.0	0.0	0.0	0.0	10.2	2.7	27.9	108.9
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total Release	kaf	33.3	32.3	35.5	33.8	30.2	33.3	52.5	93.0	89.8	41.7	33.3	32.9	541.7
Total Release	cfs	541.4	543.3	577.3	550.2	543.6	541.8	882.2	1,512.7	1,508.7	678.0	542.1	553.0	NA
Evaporation	kaf	1.1	1.2	1.3	0.3	0.9	0.3	1.2	2.9	5.8	6.9	6.1	4.1	32.1
EOM Content	kaf	315.2	309.6	296.9	287.3	279.8	291.1	327.6	437.5	539.3	544.7	525.3	498.3	NA
EOM Elevation	ft	6,345.5	6,345.5	6,345.3	6,344.9	6,344.9	6,342.1	6,336.2	6,344.2	6,348.2	6,342.3	6,338.2	6,323.7	NA
Kortes Reservoir (Initial content: 4.7 KAF)														
Total Inflow	kaf	33.3	32.3	35.5	33.8	30.2	33.3	52.5	93.0	89.8	41.7	33.3	32.9	541.7
Total Inflow	cfs	541.4	543.3	577.3	550.2	543.6	541.8	882.2	1,512.7	1,508.7	678.0	542.1	553.0	NA
Turbine Release	kaf	33.3	32.3	34.5	32.9	30.2	33.3	52.5	93.0	89.7	41.6	33.3	28.9	535.5
Spillway Release	kaf	0.0	0.0	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.9
Total Release	kaf	33.3	32.3	35.4	33.8	30.2	33.3	52.5	93.0	89.7	41.6	33.3	32.9	541.4
Total Release	cfs	541.5	543.2	576.5	550.5	543.5	541.7	882.0	1,512.2	1,508.1	677.3	541.5	552.4	NA
Min Reservoir Release	cfs	530	530	530	530	530	530	530	530	530	530	530	530	NA
Max Reservoir Release	cfs	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	NA
Pathfinder Reservoir (Initial content: 610.1 KAF)														
Sweetwater Inflow	kaf	1.5	2.9	2.7	2.3	2.2	4.0	5.4	4.2	4.9	2.1	1.2	0.8	34.1
Kortes-Path Gain	kaf	-1.0	-2.6	-5.0	-0.3	0.1	3.5	-1.4	-2.3	-7.9	4.4	2.1	2.0	-8.5
Inflow from Kortes	kaf	33.3	32.3	35.4	33.8	30.2	33.3	52.5	93.0	89.7	41.6	33.3	32.9	541.4
Total Inflow	kaf	33.7	32.6	33.1	35.9	32.5	40.7	56.5	94.9	86.8	48.1	36.5	35.6	567.0

Table 19.—North Platte Water Year 2022 hydrologic operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Total Inflow	cfs	548.5	547.5	538.7	583.5	585.0	662.7	949.6	1,543.2	1,457.9	782.7	594.3	599.1	NA
Turbine Release	kaf	1.2	22.1	23.4	23.3	20.9	24.7	61.8	34.6	118.7	154.2	148.2	0.0	5
Jet Flow Release	kaf	4.6	4.9	4.6	4.5	4.2	4.6	4.4	4.8	16.1	50.8	18.8	78.5	200.7
Spillway 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
Total Release	kaf	5.8	27.0	28.1	27.8	25.1	29.3	66.2	39.4	134.8	205.1	167.0	78.5	833.9
Total Release	cfs	93.9	453.8	456.6	451.6	452.0	476.6	1112.5	640.5	2,264.6	3,335.4	2,716.3	1318.9	NA
Evaporation	kaf	2.6	2.3	2.6	0.6	1.9	0.6	2.3	6.2	8.9	8.7	5.8	3.4	45.7
EOM Content	kaf	635.5	638.8	641.3	648.8	654.3	665.2	653.2	702.5	645.6	479.9	343.7	297.8	NA
EOM Elevation	ft	5,829.8	5,830.0	5,830.2	5,830.7	5,831.0	5,831.7	5,830.9	5,834.0	5,830.5	5,818.5	5,805.4	5,800.1	NA
Jet Flow Release	cfs	74.7	81.7	75.3	72.4	75.5	74.7	74.5	77.8	270.0	827.0	305.7	1,318.9	NA
Minimum Release	cfs	75	75	75	75	75	75	75	75	75	75	75	75	NA
Alcova Reservoir (Initial content: 180.6 KAF)														
Total Inflow	kaf	5.8	27.0	28.1	27.8	25.1	29.3	66.2	39.4	134.8	205.1	167.0	78.5	833.9
Total Inflow	cfs	93.9	453.8	456.6	451.6	452.0	476.6	1,112.5	640.5	2,264.6	3,335.4	2,716.3	1,318.9	NA
Turbine Release	kaf	28.5	26.8	27.7	10.1	0.0	8.7	42.1	23.8	103.0	165.6	136.7	54.2	627.3
Spillway Release	kaf	0.0	0.0	0.0	17.5	24.9	21.1	0.1	0.0	0.0	0.0	0.0	0.0	63.6
Casper Canal Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	15.2	19.0	14.6	11.3	67.1
Total Release	kaf	28.5	26.8	27.7	27.7	24.9	29.8	42.2	30.9	118.1	184.6	151.3	65.5	758.0
Total Release	cfs	463.6	450.7	450.5	449.8	447.9	484.9	709.5	503.3	1,985.6	3,001.5	2,460.7	1,100.0	NA
Evaporation	kaf	0.4	0.3	0.4	0.1	0.3	0.1	0.3	0.9	1.3	1.5	1.3	1.0	8.0
EOM Content	kaf	157.5	157.3	157.3	157.4	157.3	156.7	180.3	180.7	180.8	180.8	180.6	181.5	NA
EOM Elevation	ft	5,488.6	5,488.6	5,488.6	5,488.6	5,488.6	5,488.3	5,498.3	5,498.5	5,498.5	5,498.6	5,498.5	5,498.8	NA
Gray Reef Reservoir (Initial content: 1.6 KAF)														
Total Inflow	kaf	28.5	26.8	27.7	27.7	24.9	29.8	42.2	23.8	103.0	165.6	136.7	54.2	690.9
Total Inflow	cfs	463.6	450.7	450.5	449.8	447.9	484.9	709.5	387.6	1,730.2	2,692.9	2,223.8	910.5	NA

Table 19.—North Platte Water Year 2022 hydrologic operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Total Release	kaf	28.4	26.8	27.7	27.7	24.9	29.5	42.4	30.8	118.1	184.5	151.2	65.8	757.8
Total Release	cfs	462.6	451.1	450.3	450.9	448.1	480.2	712.4	501.2	1,984.2	3,000.3	2,458.6	1,105.6	NA
Min. Reservoir Release	cfs	463	451	450	451	448	480	712	501	1,984	3,000	2,459	1,106	NA
Max. Reservoir Release	cfs	463	452	451	451	449	481	713	502	1,985	3,001	2,459	1,106	NA
Glendo Reservoir (Initial content: 138.4 KAF)														
Alcova-Glendo Gain	kaf	9.0	7.3	6.4	11.4	6.9	16.6	30.6	35.0	13.9	1.1	0.2	4.7	143.1
Inflow from Gray Reef	kaf	28.5	26.8	27.7	27.7	24.9	29.8	42.2	23.8	103.0	165.6	136.7	54.2	690.9
Total Inflow	kaf	37.5	34.1	34.1	39.1	31.8	46.4	72.8	58.9	116.9	166.7	136.9	58.9	833.9
Total Inflow	cfs	609.2	572.6	555.1	635.9	571.7	754.2	1223.5	957.2	1,963.9	2,711.6	2,226.6	989.4	NA
Turbine Release	kaf	0	0	0	0	0	0	0	66.5	135.5	244.9	273.3	73.4	793.6
Low Flow Release	kaf	0	0	0	0	0	0.8	1.8	1.6	1.5	1.6	1.6	1.5	10.4
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Irrigation Release	kaf	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	9.3	34.7	32.3	7.0	84.0
Total Release	kaf	0.1	0.1	0.1	0.1	0.1	0.9	1.8	68.3	146.3	281.2	307.2	81.9	887.9
Total Release	cfs	1.0	1.1	1.0	1.0	1.0	15.4	30.4	1,110.7	2,457.9	4,572.6	4,996.6	1376.6	NA
Evaporation	kaf	0.9	0.2	1.1	1.5	0.3	1.3	3.0	3.2	5.5	5.6	3.3	1.7	27.5
EOM Content	kaf	185.4	224.4	249.8	287.0	317.8	360.4	427.9	419.4	381.6	270.6	126.7	127.2	NA
EOM Elevation	ft	4,600.6	4,606.3	4,609.7	4,614.4	4,618.0	4,622.7	4,629.3	4,628.5	4,624.8	4,612.4	4,590.1	4,590.2	NA
Guernsey Reservoir (Initial content: 0.0 KAF)														
Glendo-Guernsey Gain	kaf	1.5	1.4	1.1	1.0	1.3	1.4	2.2	-3.2	-4.9	1.3	-6.0	2.2	-0.8
Inflow from Glendo	kaf	0.1	0.1	0.1	0.1	0.1	0.9	1.8	68.3	146.3	281.2	307.2	81.9	887.9
Total Inflow	kaf	1.6	1.4	1.1	1.1	1.4	2.4	4.0	65.1	141.3	282.4	301.2	84.1	887.1
Total Inflow	cfs	26.2	23.9	18.6	17.4	25.0	38.5	66.6	1,058.1	2,374.9	4,593.3	4,898.7	1,413.9	NA
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6	57.5	22.1	61.9	41.1	205.2
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1

Table 19.—North Platte Water Year 2022 hydrologic operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Spillway Release	kaf	1.3	1.2	0.8	0.8	1.2	0.4	-0.3	39.6	139.0	279.9	294.7	108.9	867.5
Total Release	kaf	1.6	1.4	1.1	1.1	1.4	0.7	0.1	40.8	142.0	283.0	297.2	109.2	879.6
Total Release	cfs	26.2	23.9	18.6	17.4	25.0	11.8	1.4	663.0	2,386.3	4,602.5	4,833.4	1,834.4	NA
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	1.1	0.5	1.0	0.6	3.9
EOM Content	kaf	0.0	0.0	0.0	0.0	0.0	1.6	5.3	29.1	27.3	26.2	29.3	3.7	NA
EOM Elevation	ft	4,370.0	4,370.0	4,370.0	4,370.0	4,370.0	4,386.7	4,395.0	4,412.5	4,411.6	4,411.0	4,412.6	4,392.2	NA
Physical EOM Cont.	kaf	1,299.9	1,336.4	1,351.6	1,386.7	1,415.5	1,481.5	1,600.7	1,775.6	1,781.0	1,508.6	1,212.0	1,114.4	NA

Table 20.—North Platte Water Year 2022 ownership operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
North Platte Pathfinder (Initial ownership: 152.5 KAF)														
Net Accrual	kaf	34.9	33.1	13.8	25.0	22.6	49.8	93.1	207.8	97.6	0.0	0.0	0.0	577.8
Evaporation	kaf	0.9	0.9	1.1	0.3	0.6	0.6	1.3	4.9	8.8	9.7	5.9	0.0	35.0
Deliv from Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	214.1	254.9	0.0	469.0
EOM Ownership	kaf	186.4	218.6	231.3	256.0	278.0	327.3	419.1	622.7	711.5	487.7	226.9	154.8	NA
North Platte Guernsey (Initial ownership: 0 KAF)														
Net Accrual	kaf	0.0	0.0	6.4	11.4	6.8	17.3	2.3	0.0	0.0	0.0	0.0	0.0	44.1
Evaporation/Seepage	kaf	0.0	0.0	0.0	-0.2	-0.1	-0.3	-0.7	-0.8	-1.2	0.0	0.0	0.0	-3.3
Deliv from Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-39.7	0.0	0.0	0.0	-39.7
EOM Ownership	kaf	0.0	0.0	6.3	17.5	24.3	41.2	42.8	42.0	1.1	0.0	0.0	0.0	NA
Inland Lakes (Initial ownership: 0 KAF)														
Net Accrual	kaf	8.9	7.2	0.0	0.0	0.0	0.0	28.2	0.0	0.0	0.0	0.0	0.0	44.3
Evaporation/Seepage	kaf	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.9
Transfer from Ownership	kaf	1.6	1.4	0	0	0	0	0	31.9	10.5	0	0	0	45.4
EOM Ownership	kaf	8.9	16.1	16.0	15.9	15.8	15.8	43.7	11.6	0.0	0.0	0.0	0.0	NA
Kendrick (Initial ownership: 953.5 KAF)														
Net Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Evaporation	kaf	2.5	2.9	3.1	0.7	1.6	1.3	2.7	5.9	8.9	10.0	8.7	5.9	54.3
Deliv from Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	15.2	19.0	14.6	11.3	67.1
EOM Ownership	kaf	950.9	948.0	944.9	944.2	942.6	941.3	938.6	925.5	901.4	872.4	849.2	832.0	NA
Glendo Unit (Initial ownership: 134.2 KAF)														
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	2.2	7.8	2.0	0.0	0.0	0.0	12.0
Evaporation	kaf	1.4	0.4	1.0	1.1	0.1	0.8	1.7	1.9	3.3	3.3	3.0	2.0	20.0
Deliver from Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	12.5	10.0	7.2	29.8
EOM Ownership	kaf	132.5	132.1	131.2	130.0	129.9	129.1	129.5	142.7	156.2	140.3	127.3	118.2	NA
Re-regulation (Initial ownership: 5.6 KAF)														
Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Table 20.—North Platte Water Year 2022 ownership operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	5.3
EOM Total	kaf	5.5	5.5	5.5	5.5	5.5	5.5	5.4	5.4	0.0	0.0	0.0	0.0	NA
City of Cheyenne (Initial ownership: 7.3 KAF)														
Inflow	kaf	0.7	2.5	0.7	0.5	0.6	0.8	0.3	0.6	2.7	1.1	0.7	0.7	11.9
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5
Release	kaf	0.1	0.1	0.2	0.2	0.0	0.0	0.3	8.2	0.8	0.5	0.0	0.2	10.7
Ownership	kaf	7.9	8.4	8.7	9.9	11.7	13.7	13.9	5.6	6.0	5.8	6.5	7.3	NA
PacifiCorp (Initial ownership: 2 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Ownership	kaf	2	2	2	2	2	2	2	2	2	2	2	2	NA
Other (Initial ownership: 5.7 KAF)														
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-0.1	0.1
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.4	2.5	0.4	0.0	4.9
Ownership	kaf	5.7	5.7	5.7	5.7	5.7	5.6	5.6	3.3	2.9	0.4	0.0	0.1	NA

Table 21.—North Platte Water Year 2022 irrigation delivery operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Kendrick (Casper Canal)														
Requested	kaf	0	0	0	0	0	0	0	7.1	15.2	19	14.6	11.3	67.2
Delivered	kaf	0	0	0	0	0	0	0	7.1	15.2	19	14.6	11.3	67.2
Kendrick (River)														
Requested	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Delivered	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Guernsey Deliveries														
North Platte Req.	kaf	0	0	1.1	1.1	1.4	0.7	0.1	8.9	127	269	287.8	102.3	799.4
Glendo Req.	kaf	0	0	0	0	0	0	0	0	0.1	12.5	10	7.2	29.8
Inland Lakes Req.	kaf	1.6	1.4	0	0	0	0	0	31.9	10.5	0	0	0	45.4
Total Requirement	kaf	1.6	1.4	1.1	1.1	1.4	0.7	0.1	40.8	137.6	281.5	297.8	109.5	874.6
Seepage	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Actual Release	kaf	1.6	1.4	1.1	1.1	1.4	0.7	0.1	40.8	140.1	284	297.8	109.5	879.6

Table 22.—North Platte Water Year 2022 power operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Power Plant														
Turbine Release	kaf	6.9	6.4	20.7	32.9	30.2	33.3	52.5	93.0	89.8	31.5	30.6	5.0	432.8
Bypass	kaf	26.4	25.9	14.8	0.9	0.0	0.0	0.0	0.0	0.0	10.2	2.7	27.9	108.9
Maximum Generation	gwh	25.7	24.7	25.2	24.8	22.1	24.6	24.6	27.4	28.6	30.5	30.4	29.0	317.6
Actual Generation	gwh	0.9	3.8	3.9	3.5	3.2	3.5	5.9	11.5	11.4	3.9	3.7	0.0	55.2
Percent Max. Generation	-	3.6	15.6	15.5	14.1	14.3	14.3	24.1	41.9	39.8	12.8	12.0	0.1	17.4
Average kwh/AF	-	132.6	600.3	188.4	106.3	105.1	105.8	112.9	123.4	126.6	123.6	119.3	8.0	127.6
Kortes Power Plant														
Turbine Release	kaf	33.3	32.3	34.5	32.9	30.2	33.3	52.5	93.0	89.7	41.6	33.3	28.9	535.5
Bypass	kaf	0.0	0.0	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.9
Maximum Generation	gwh	28.3	26.7	27.6	27.6	24.9	27.6	26.7	27.6	26.7	27.6	27.6	26.7	325.8
Actual Generation	gwh	5.5	5.3	5.4	5.1	4.5	5.1	8.4	15.1	14.1	6.7	5.4	4.7	85.2
Percent Max. Generation	-	19.3	19.7	19.4	18.5	18.2	18.4	31.4	54.7	52.9	24.1	19.5	17.4	26.1
Average kwh/AF	-	164.7	162.7	155.6	155.0	150.5	152.7	159.9	162.5	157.6	159.9	161.7	161.3	159.1
Fremont Canyon Power Plant														
Turbine Release	kaf	1.2	22.1	23.4	23.3	20.9	24.7	61.8	34.6	118.7	154.2	148.2	0.0	633.2
Bypass	kaf	4.6	4.9	4.6	4.5	4.2	4.6	4.4	4.8	16.1	50.8	18.8	8.1	130.4
Maximum Generation	gwh	0.2	44.2	45.7	45.8	41.4	46.0	44.5	46.1	44.6	46.1	43.0	40.3	487.7
Actual Generation	gwh	0.2	5.7	6.3	7.2	6.1	7.0	18.6	9.7	35.3	46.1	41.5	18.9	202.6
Percent Max. Generation	-	100.0	12.9	13.8	15.7	14.8	15.2	41.8	21.1	79.3	100.0	96.6	47.0	41.5
Average kwh/AF	-	130.7	256.7	270.0	308.6	294.0	283.4	300.8	281.7	297.6	298.6	280.0	N/A	320.0
Alcova Power Plant														
Turbine Release	kaf	28.5	26.8	27.7	10.1	0.0	8.7	42.1	23.8	103.0	165.6	136.7	54.2	627.3
Bypass	kaf	0.0	0.0	0.0	17.5	24.9	21.1	0.1	0.0	0.0	0.0	0.0	0.0	63.6
Maximum Generation	gwh	27.2	26.4	27.3	27.3	0.0	27.3	26.3	27.6	26.7	27.6	27.6	26.7	297.9

Table 22.—North Platte Water Year 2022 power operations

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Actual Generation	gwh	2.7	2.5	2.6	1.0	0.0	0.9	4.9	3.4	16.5	26.1	21.3	8.4	90.3
Percent Max. Generation	-	9.8	9.6	9.5	3.6	N/A	3.3	18.8	12.3	62.0	94.6	77.2	31.7	30.3
Average kwh/AF	-	93.9	94.7	94.0	96.5	0.0	104.1	117.1	141.9	160.4	157.4	155.5	155.8	144.0
Glendo Power Plant														
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.5	135.5	244.9	273.3	73.4	793.6
Bypass	kaf	0.1	0.1	0.1	0.1	0.1	0.9	1.8	1.8	10.7	36.3	34.0	8.5	94.5
Maximum Generation	gwh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.3	24.1	23.2	19.3	13.9	105.7
Actual Generation	gwh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	13.1	20.4	19.1	4.2	63.2
Percent Max. Generation	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.3	54.4	88.0	98.9	30.1	59.8
Average kwh/AF	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	96.2	96.8	83.4	69.8	56.8	79.6
Guernsey Power Plant														
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6	57.5	22.1	61.9	41.1	205.2
Bypass	kaf	1.6	1.4	1.1	1.1	1.4	0.7	0.1	18.2	84.5	260.9	235.3	68.1	674.3
Maximum Generation	gwh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.0	3.8	4.2	3.5	19.0
Actual Generation	gwh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	4.0	1.5	4.2	2.8	14.0
Percent Max. Generation	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	41.7	100.0	38.9	100.0	80.8	73.4
Average kwh/AF	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	66.2	69.1	66.4	68.6	67.9	68.1

Flood Benefits for Water Year 2022

Flood benefits for WY 2022 are shown in Table 23.

Table 23.—Water Year 2022 flood benefits

Dams	Water Year 2022	Prior To 2022 [2]	Accumulated Total [1]
Seminoe	$0	$103,023,400	$103,023,400
Pathfinder	$0	$36,824,300	$36,824,300
Alcova	$0	$3,438,900	$3,438,900
Glendo	$40,000	$254,717,700	$254,757,700
Total	$40,00010	$398,004,300	$398,044,300

[1] This data is received from the U.S. Army Corps of Engineers, Omaha District Office and is revised every October.

[2] The period of assessment is 1970 through 2021 except for Glendo Dam, 1964 through 2021.

Generation for Water Year 2022

Power generation was below average for all powerplants due to a drought year and maintenance in WY 2022. See Table 24 for a breakdown of generation by powerplant during WY 2022.

Table 24.—Water Year 2022 power generation

Powerplant	Gross generation[1] (GWh)	Average gross generation[2] (GWh)	Percent of average [2]
Seminoe	48.5	125.6	39
Kortes	84.3	132.6	64
Fremont Canyon	206.1	215.7	96
Alcova	90.6	107.1	85
Glendo	63.2	83.1	76
Guernsey	14.0	17.2	81
Total Basin	506.7	681.3	74

[1] Generation is reported in gigawatt hours (GWh).

[2] 30-year average (1993-2022).

The number of generation units at each powerplant, their capacity, and output at rated head is shown in Table 25.

Table 25. —Power generation capacity

Powerplant	Number of units	Capacity each unit (kw)	Total [2] installed capacity (kw)	Normal operating head (feet)	Output at rated head (cfs)	30-year average [1] (GWh)
Seminoe	3	15,000 [3]	51,750 [3]	97-227	4,050	125.6
Kortes	3	12,000	36,000	192-204	2,910	132.6
Fremont Canyon	2	33,400	66,800	247-363	3,080	215.7
Alcova	2	19,500	41,400	153-165	4,100	107.1
Glendo	2	19,000	38,000	73-156	3,400	83.1
Guernsey	2	3,200	6,400	89-91	1,340	17.2
Total	14	N/A	237,200	N/A	N/A	681.3

[1] 1993-2022
[2] Installed capacities from Monthly Report of Power Operations-Powerplant (Form PO&M 59)
[3] A Mechanical restriction allows a 42,000-kw generation; 12,000 kw per unit.

Proposed Operations for Water Year 2023

Three operation studies were developed for the System to establish an AOP for WY 2023. Each of the studies conformed to the established operating criteria but used different inflow conditions and different demand conditions.

The three inflow conditions were determined from a statistical analysis of historic inflows and were labeled reasonable minimum, reasonable maximum, and reasonable expected inflow estimates. The reasonable expected inflow is based on long-term averages and approximates a 50 percent chance of occurrence. The three studies for WY 2023 are summarized numerically in tables in Appendix A.

The AOP, as developed and reflected in the three studies, provides the flexibility to adjust operations as conditions change during the water year. Forecasts of the April through July reservoir inflow will be made at the beginning of each month for February through May. Projected operating schedules will be adjusted, as required, throughout the water year as changes occur in the forecasted inflows, irrigation demands, maintenance schedules, and power loads.

The total storage in mainstem reservoirs on the North Platte River in Wyoming (including Kortes Reservoir and Gray Reef Reservoir) was 1,114,380 AF at the beginning of the WY 2023. This amount was 86 percent of the 30-year average (1993-2022) and 45 percent of active conservation capacity.

Seminoe Reservoir

Most Probable Condition – 2023

October through March – Seminoe Reservoir had a storage of 498,300 AF at the beginning of WY 2023, 81 percent of the 30-year average and 49 percent of active conservation capacity. Planned turbine releases from Seminoe Reservoir are zero for October 2022 due to maintenance. Planned turbine releases from Seminoe Reservoir are approximately 530 cfs for November through March. Reservoir storage would decrease to about 466,100 AF by March 31, 2023. The releases are based on an estimated Seminoe inflow for the October through March period of 183,400 AF. The planned Seminoe and Kortes release of 530 cfs for October through March are required to maintain a minimum flow of at least 500 cfs in the Miracle Mile reach of the river.

April through September – Planned releases increase to 1,500 cfs in April then 2,600 cfs in May and continue at 2,600 cfs through July. Planned releases decrease to approximately 1,980 cfs in August 2023 then 530 cfs in September 2023. There is no bypass expected in the most probable scenario. Seminoe Reservoir storage will reach a maximum of 727,200 AF by the end of June. Projected carryover storage of about 541,000 AF at the end of the water year would be 88 percent of average and 53 percent of active conservation capacity.

Reasonable Minimum Condition – 2022

October through March – Seminoe Reservoir had a storage of 498,300 AF at the beginning of WY 2023, 81 percent of the 30-year average and 49 percent of active conservation capacity. Planned turbine releases from Seminoe Reservoir are zero for October 2022 due to maintenance. Planned turbine releases from Seminoe Reservoir are approximately 530 cfs for November through March. A release of at least 500 cfs is required to maintain the minimum flow in the Miracle Mile reach of the river. Under this condition, inflows are predicted to be 146,700 AF for the period, 36,700 AF, less than the most probable condition. March 31 reservoir content is expected to be approximately 450,300 AF.

April through September – Seminoe water releases will increase to 2.000 cfs in April and stay at 2,000 cfs through May. Seminoe water releases will decrease to 1,400 cfs in June, and then 880 cfs in July, and then 530 cfs in August. Under the minimum condition scenario, the June content will be approximately 418,400 AF, and the water year will end with a content of 354,100 AF, 57 percent of average and 35 percent of active conservation capacity.

Reasonable Maximum Condition – 2023

October through March – Planned water releases for this period under a reasonable maximum inflow condition are similar to the most probable condition as water is moved downstream to generate power and make room in Seminoe Reservoir for spring runoff. Although inflows to Seminoe Reservoir are higher under these conditions, actual changes in winter operations are

made gradually until it is evident that the inflow quantities being experienced are showing a trend towards the maximum inflows for the water year. October through March inflows under this condition would be 215,900 AF, 32,500 AF, more than the most probable runoff condition. The reservoir content would decrease from 500,100 AF at the end of October to 379,900 AF by the end of March under these conditions.

April through September – Seminoe Reservoir releases will increase in April to 3,000 cfs. A release of 3,000 cfs will be maintained from April through June. Releases will increase in July to 3,381 cfs, then decrease in August to 2,363 cfs, and finally 530 cfs in August being the minimum flow rate. Inflows for the April through July period will be approximately 1,346,400 AF, 593,600 AF more than the most probable runoff condition. Seminoe Reservoir will reach its maximum end of month content for the year in June and July with approximately 950,000 AF in storage. This plan of operation would result in an end of year carryover storage of 856,400 AF, 138 percent of average and 84 percent of active conservation capacity.

Figure 12 depicts a comparison of minimum, most probable, and maximum Seminoe inflows.

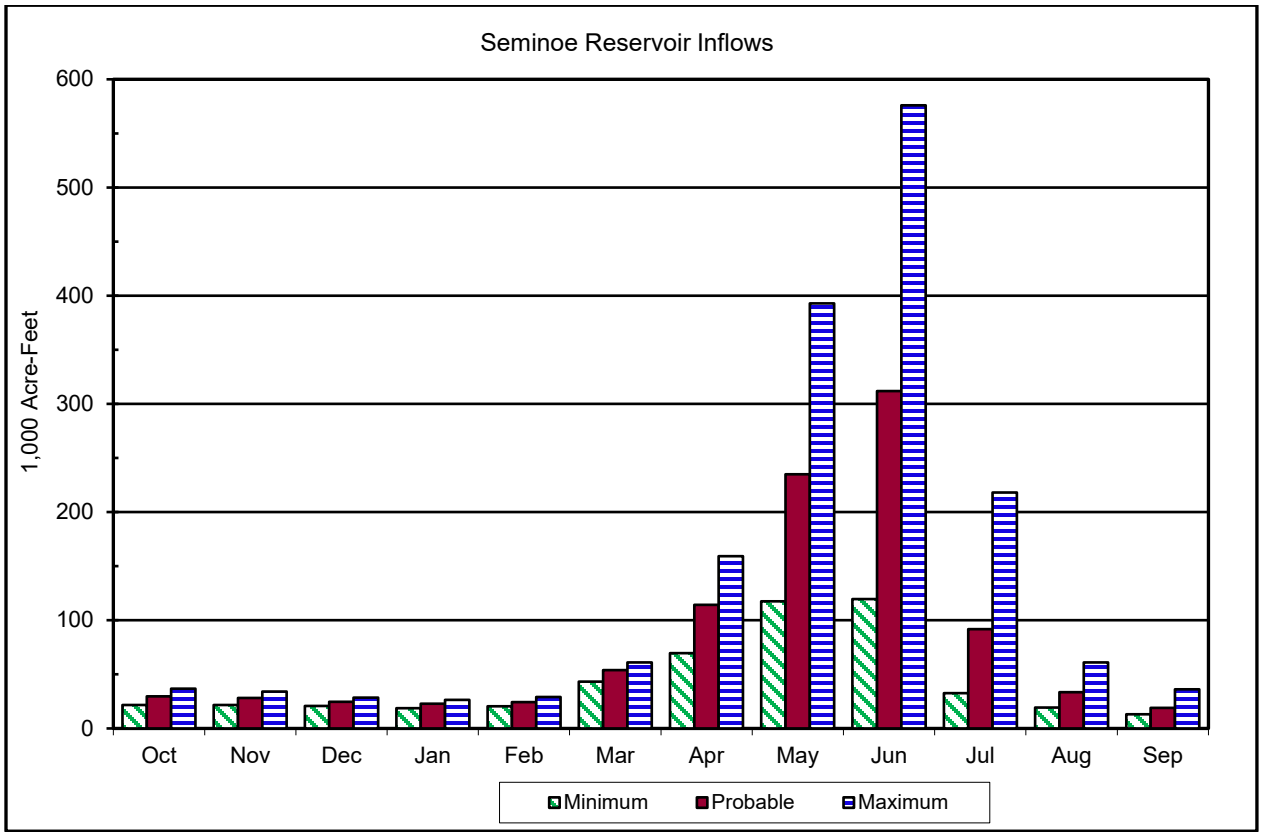

Figure 12.—Seminoe Reservoir inflow (predicted for Water Year 2023).

Figure 13 depicts a comparison of minimum, most probable, and maximum Seminoe storage.

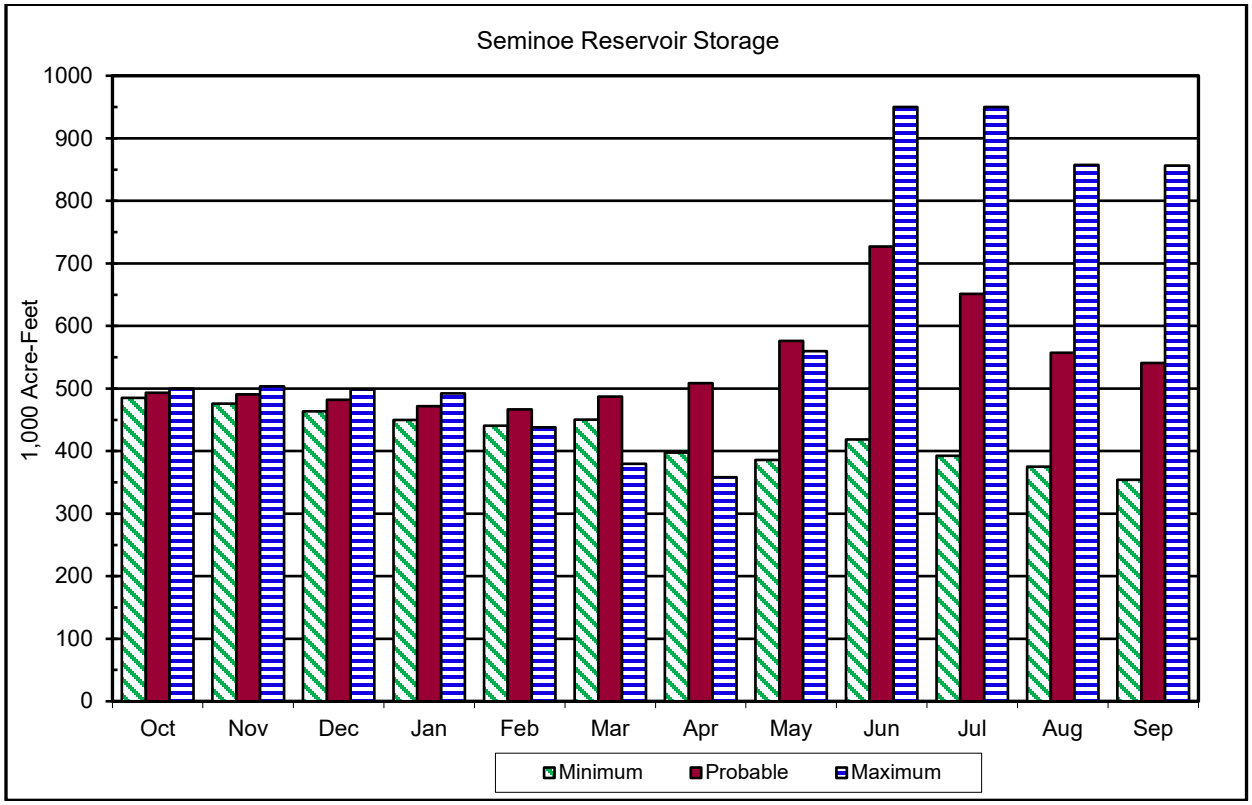

Figure 13.—Seminoe Reservoir storage (predicted for Water Year 2023).

Pathfinder Reservoir

Most Probable Condition – 2023

October through March – Pathfinder Reservoir had a storage of 297,800 AF at the beginning of WY 2022, 56 percent of the 30-year average and 28 percent of active conservation capacity. Under this condition, gains to the river between Kortes Dam and Pathfinder Dam, including the Sweetwater River, are expected to be 32,400 AF for the October-March period. Fremont Canyon Powerplant releases will be reduced during October to allow Alcova Reservoir water surface level to be lowered to the normal winter operating level of 5,488.00. After the Alcova winter operating range is reached, releases from Pathfinder Reservoir will be adjusted to meet Gray Reef Reservoir releases and maintain the Alcova Reservoir content between 153,800 and 158,300 AF. Pathfinder Reservoir storage is projected to be about 353,200 AF at the end of March.

April through September – Pathfinder Reservoir storage will reach a maximum content of about 524,500 AF by the end of June and be drawn down to a storage content of about 360,900 AF by

the end of the water year, 67 percent of average. River gains between Kortes Dam and Pathfinder Dam, including the Sweetwater River, are estimated at about 69,100 AF for the April through July period. In April, Fremont Canyon Powerplant releases will be coordinated with Alcova releases to refill Alcova Reservoir to its normal summer operating range of 5,498 + 1 foot.

April through September – Fremont Canyon power releases will be scheduled to meet downstream irrigation deliveries and maintain Alcova Reservoir within the summer operating range. Pathfinder Reservoir water releases will increase to approximately 860 cfs in April, to 1,470 cfs in May, to 2,300 cfs in June and to 2,750 cfs in July. Releases will decrease to 2,700 cfs for August, and approximately 2,400 cfs in September.

Reasonable Minimum Condition – 2023

October through March – Under the reasonable minimum condition, river gains between Kortes Dam and Pathfinder Dam, including the Sweetwater River, are expected to be 14,700 AF for the October-March period. Pathfinder Reservoir storage will decline to about 335,600 AF by the end of March. Fremont Canyon Powerplant releases for the period will be scheduled to maintain the Alcova Reservoir content between 153,800 and 158,300 AF.

April through September – River gains between Kortes Dam and Pathfinder Dam, including the Sweetwater River, are estimated at about 8,400 AF for the April through July period under reasonable minimum inflow conditions. In April, releases will be coordinated with Alcova releases to refill Alcova Reservoir to its normal summer operating range of 5,498 ft +/- 1 foot by the end of April.

April through September – Fremont Canyon power releases will be scheduled to meet downstream irrigation deliveries and maintain a storage content of approximately 179,400 AF in Alcova Reservoir. The highest Pathfinder Reservoir summer releases will be approximately 2,330 cfs, during July, and then reduced as irrigation demands drop off to end the water year at approximately 976 cfs during September. If reasonable minimum runoff develops, Pathfinder reservoir content at the end of the water year will be about 234,900 AF, 44 percent of average and 22 percent of active conservation capacity.

Reasonable Maximum Condition – 2023

October through March – Under the reasonable maximum condition, river gains between Kortes Dam and Pathfinder Dam are expected to be 48,700 AF for the period. Pathfinder Reservoir content increases through this period from 331,000 AF at the end of October to 508,500 AF by the end of March.

April through September – In April, water releases from Fremont Canyon Powerplant will be increased as Alcova Reservoir is refilled to water surface elevation 5498 + 1 foot. The rate of release will be increased through the summer as needed to meet downstream irrigation demands.

Pathfinder Reservoir would reach a maximum content of 1,042,900 AF at the end of June. To avoid too much water in Glendo, releases will be approximately 860 cfs in April, 620 cfs in May, and 700 cfs in June. Releases will be increased to 3,926 cfs July, 3,877 cfs in August. Releases will be decreased to 1,642 cfs in September. The Pathfinder Reservoir end of year storage content is projected to be about 858,000 AF, 160 percent of average, and 80 percent of capacity.

Under all three possible inflow conditions, a constant release of 75 cfs is planned from the Pathfinder Dam outlet works which will provide the necessary water to maintain a year-round fishery in the North Platte River below Pathfinder Reservoir. The maximum plan will require a bypass July through August from the jet-flow gates below Pathfinder Dam.

Figure 14 depicts a comparison of minimum, most probable, and maximum river gains from Kortes Dam to Pathfinder Reservoir. Figure 15 depicts a comparison of minimum, most probable, and maximum Pathfinder Storage.

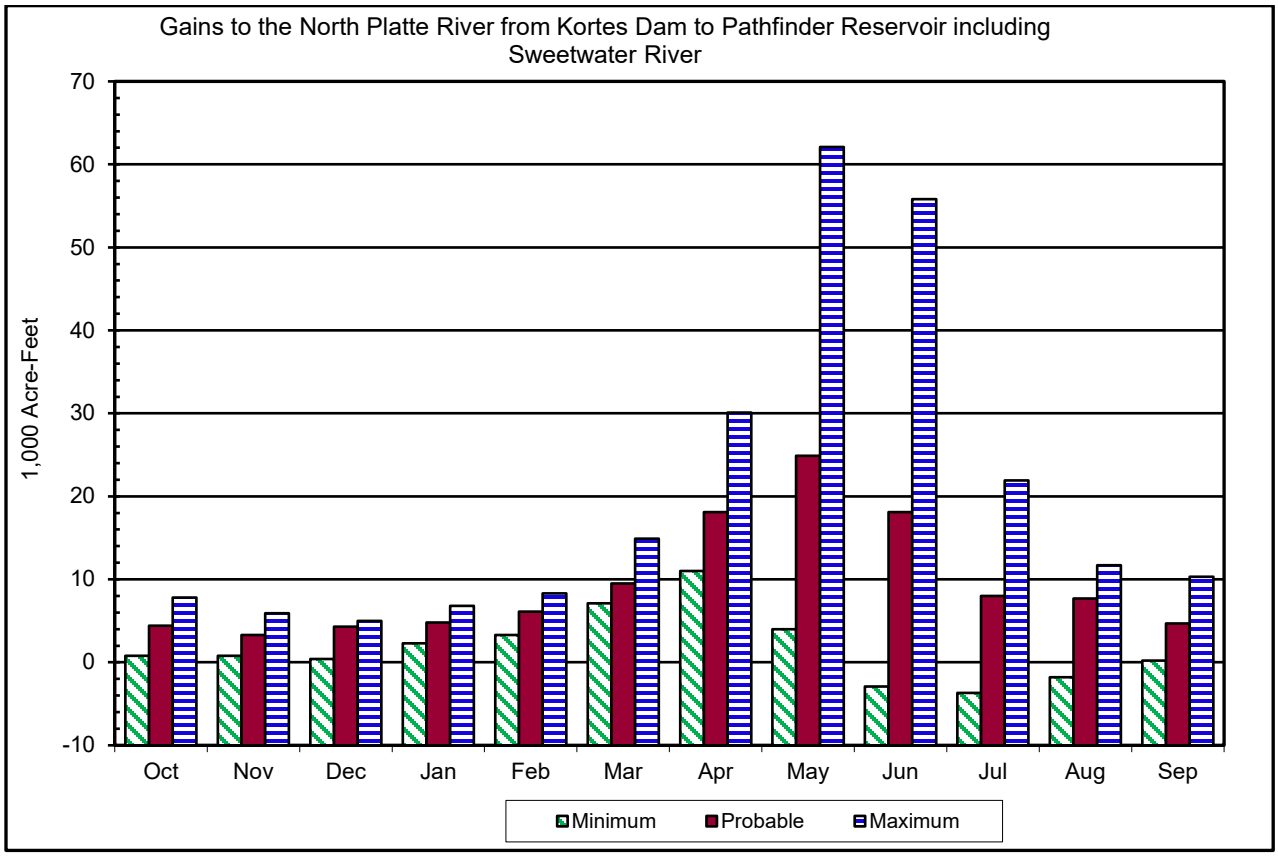

Figure 14.—Gains to the North Platte River from Kortes Dam to Pathfinder Reservoir (predicted for WY 2023).

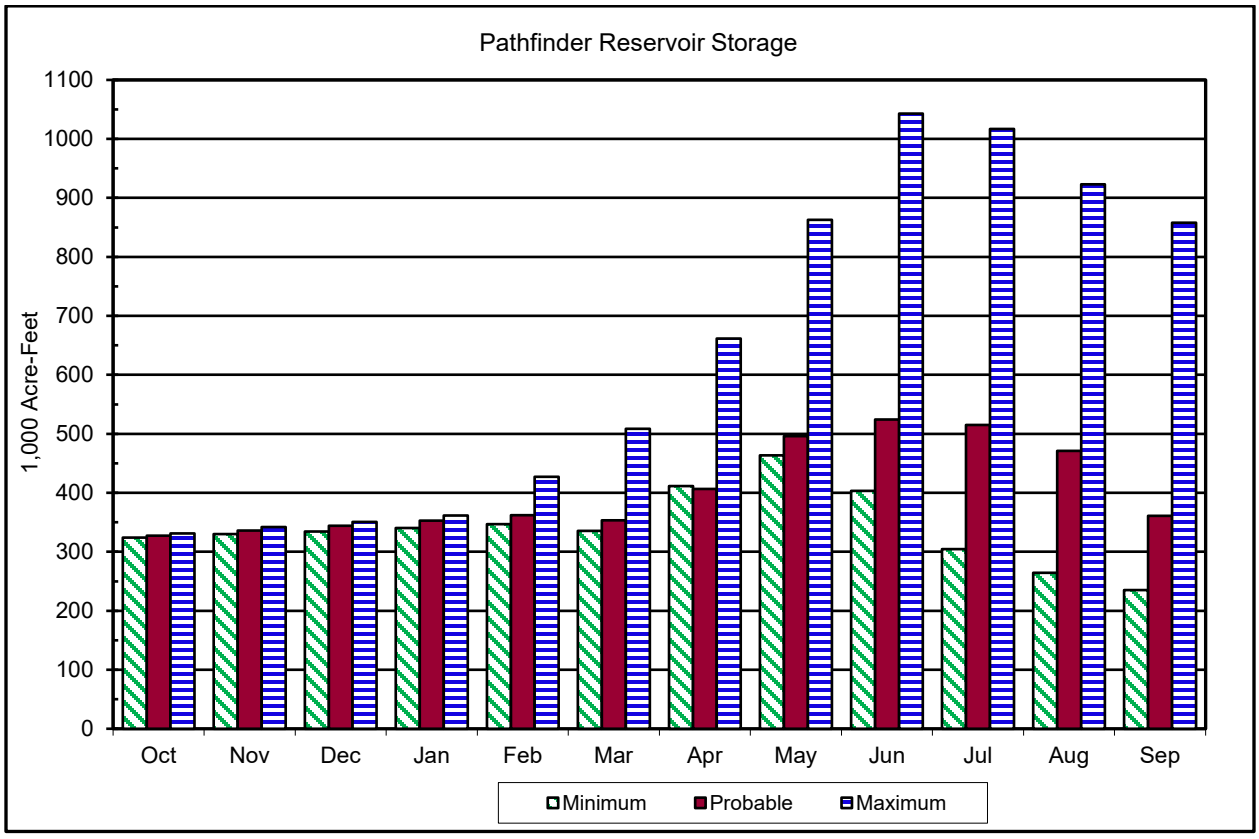

Figure 15.—Pathfinder Reservoir storage (predicted for WY 2023).

Alcova Reservoir

Most Probable Condition – 2023

October through March – During October through March, Alcova Reservoir will be drawn down to the winter operating level of 5,488.0 +/- 1 foot. October 1 the release from Pathfinder will be decreased while maintain winter operating flows of 450 cfs from Alcova to lower Alcova to 5,488 feet by October 31. The release of 450 cfs is 50 cfs below normal to be cautious with Glendo Reservoir spring storage. The winter releases will be used for production of power, maintenance of fishery flows, pollution abatement, and transfer of water to Glendo Reservoir in preparation for meeting downstream irrigation demands during the coming irrigation season. Provisions have been made in the plan to increase the releases from Alcova during March for a flushing flow below Gray Reef Reservoir.

April through September – During April, the reservoir will be refilled to water surface elevation 5498 (179,400 AF). This level will be maintained within +/- 1 foot to provide the necessary water surface elevation to make irrigation deliveries to Casper Canal and for recreational purposes. Approximately 65,900 AF of water scheduled to be delivered during the May through September period to meet Kendrick Project irrigation requirements. In addition, April releases to

the river are scheduled to be approximately 26,800 AF and May through September releases to the river from Alcova Reservoir will total approximately 631,400 AF, and will be re-regulated at Gray Reef Reservoir.

Reasonable Minimum Condition - 2023

October through September – Operation of Alcova Reservoir would be the same as under the most probable condition, with about 65,900 AF of water scheduled to be delivered during the May through September period to meet Kendrick Project irrigation requirements. April releases are scheduled to be approximately 26,800 AF and May through September releases to the North Platte River from Alcova Reservoir will total approximately 398,800 AF. Water released from Alcova Reservoir will be re-regulated at Gray Reef Reservoir.

Reasonable Maximum Condition - 2023

October through September – Operation of Alcova Reservoir would be the same as under the most probable condition, with about 65,900 AF of water scheduled to be delivered during the May through September period to meet Kendrick Project irrigation requirements. March releases will be approximately 49,200 AF and April releases will be approximately 26,800 AF. May through September releases to the North Platte River from Alcova Reservoir will total approximately 584,500 AF. Figure 16 depicts a comparison of minimum, most probable, and maximum Alcova storage.

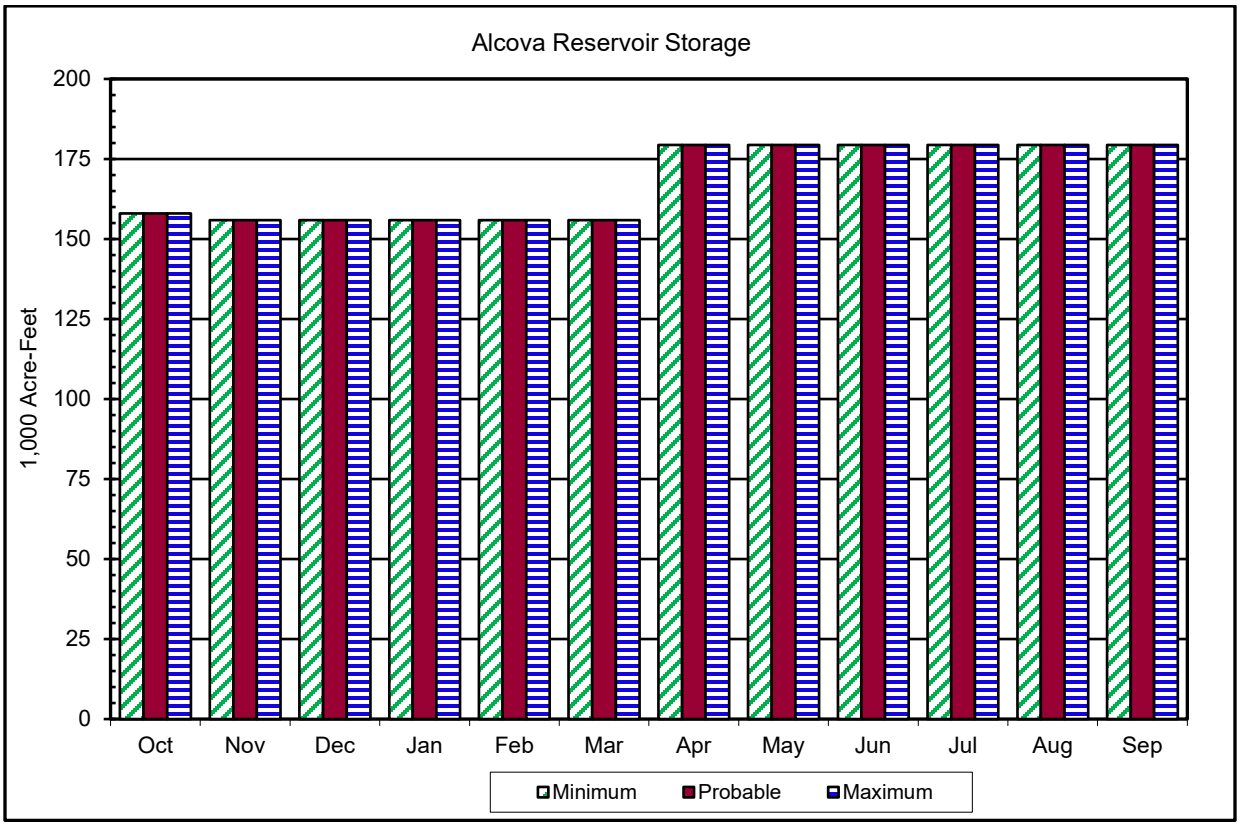

Figure 16.—Alcova Reservoir storage (predicted for WY 2023).

Gray Reef Reservoir

Most Probable Condition - 2023

October through March – October 1 the release from Gray Reef Reservoir will be winter operating flow of 450 cfs through March. This is 50 cfs below the normal winter operating flow to be cautious with Glendo Reservoir spring storage. A flushing flow is planned below Gray Reef Dam during March.

April through September – Releases from Gray Reef Reservoir will maintain winter flow rate at 450 cfs for April and May, increase to 1,500 cfs in June, increase again to 2,400 cfs in July and August, and then decrease to 2,185 cfs in September.

Reasonable Minimum Condition - 2023

October through March – Operation of Gray Reef Reservoir winter releases will be the same as under the most probable condition through March.

April through September – Releases from Gray Reef Reservoir will maintain winter flow rate of 450 cfs for April and May. Releases will increase to 2,000 cfs in June and July and then decrease to 800 cfs in August and September. These predicted flows may be redistributed as the irrigators adjust their use of water from storage.

Reasonable Maximum Condition - 2023

October through March – Operation of Gray Reef Reservoir winter releases will be the same as under the most probable condition through March.

April through September – Releases from Gray Reef Reservoir will maintain winter flow rate of 450 cfs for April, May, and June to prevent Glendo Reservoir from entering the flood pool. Releases will increase to approximately 3,600 cfs in July and August and then decrease to 1,465 cfs in September.

Glendo and Guernsey Reservoirs

Most Probable Condition - 2023

October through March – Glendo Reservoir had a storage of 127,200 AF at the beginning of WY 2023, 94 percent of average and 26 percent of active conservation capacity of 492,022 AF. Glendo Reservoir storage will increase to approximately 363,200 AF by the end of March, 93 percent of average and 74 percent of active conservation capacity.

A new area capacity table for Glendo Reservoir, based upon a recent silt survey, was applied on September 30, 2012. This resulted in a reduced capacity with the top of active conservation being 492,022 AF at elevation 4,635 feet.

Guernsey Reservoir had storage of 3,690 AF at the beginning of WY 2023, 82 percent of average and 8 percent of active conservation capacity. Natural inflow will be stored during the winter, expected to increase storage to 19,800 AF by March 31.

April through September – During April, releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir. Maximum Glendo Reservoir storage will be about 468,600 AF by the end of June. Releases from Glendo Reservoir during the May through September period will be based upon meeting irrigation demand.

Guernsey Reservoir content will be maintained near 28,000 AF by the beginning of May through August. A silt run in July will require close coordination of Glendo and Guernsey release schedules as Guernsey Reservoir is drawn down to about 1,000 AF in July during the silt run and will be refilled to approximately 28,000 AF following the silt run. Releases for delivery of irrigation water will draw down Glendo Reservoir to about 100,000 AF by the end of September.

Reasonable Minimum Condition - 2023

October through March – Guernsey Reservoir had a storage of 3,690 AF at the beginning of WY 2023. Under the reasonable minimum inflow conditions natural inflow will be stored during the winter that will increase the Guernsey Reservoir content to 19,200 AF by the end of March. Glendo Reservoir content will increase from the carryover storage of 127,200 AF to an end of March content of 351,000 AF.

April through September – During April, releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir. Glendo Reservoir storage will increase to about 369,300 AF by the end of April.

The operation of Glendo and Guernsey Reservoirs will be based upon making full irrigation deliveries to the Glendo Unit and approximately 81 percent of normal deliveries to the North Platte Project. The total combined System reservoir storage would be approximately 312,900 AF lower than most probable conditions by the end of the water year under reasonable minimum water supply conditions.

Guernsey Reservoir content will be maintained near 28,000 AF during April through August. A silt run in July will require close coordination of Glendo and Guernsey release schedules. September releases will be made to meet irrigation requirements leaving 100,000 AF of water in Glendo Reservoir at the end of September. Guernsey Reservoir content will be 2,000 AF at the end of September.

Reasonable Maximum Condition - 2023

October through March – Guernsey Reservoir had a storage of 3,690 AF at the beginning of WY 2023. Natural inflow will be stored during the winter that will increase Guernsey Reservoir to 20,200 AF by the end of March. Glendo Reservoir is expected to increase from the starting content of 127,200 AF to an end of March content of 389,100 AF.

April through September – Under maximum conditions, re-regulation water will be released as natural flow to meet irrigation demands until the supply is used as required. An annual total of 1,299,000 AF of water will be released from Guernsey Reservoir. Guernsey Reservoir will maintain 28,000 AF in April and remain at that level through August. Under reasonable maximum conditions Glendo Reservoir will increase to peak storage of 492,000 AF in May. During September, releases will be scheduled to lower Guernsey Reservoir to approximately 2,000 AF.

The operating plan shown in Appendix A assumes no downstream flow restrictions and normal irrigation deliveries. Glendo storage is projected to decrease to about 377,100 AF by the end of July and will be about 100,000 AF by the end of September. End of year Glendo storage would be 74 percent of average and the total System storage at the end of the water year would be 2,001,600 AF, 135 percent of average.

Figure 17 depicts a comparison of minimum, most probable, and maximum river gains from Alcova Dam to Glendo Reservoir.

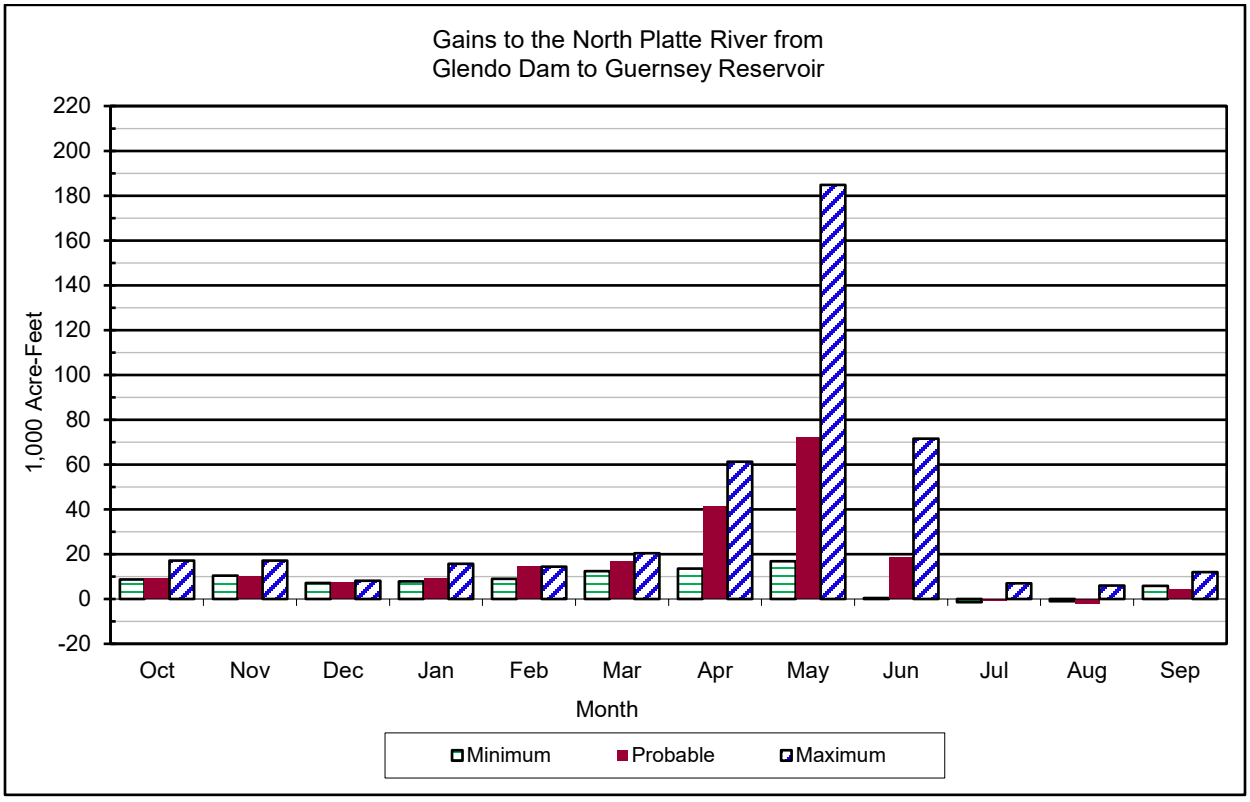

Figure 17.—Gains to North Platte River from Alcova Dam to Glendo Reservoir (predicted for WY 2023).

Figure 18 presents a comparison of minimum, most probable, and maximum Glendo Reservoir storage.

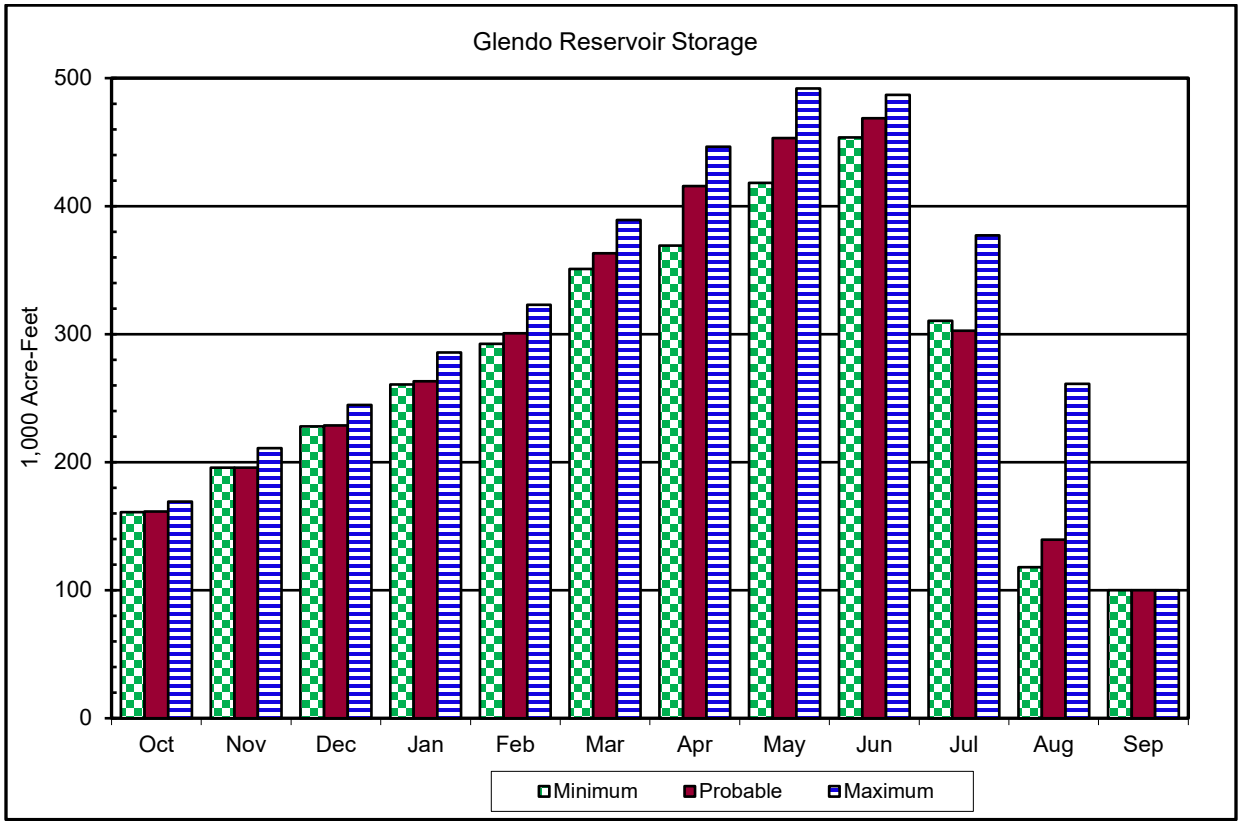

Figure 18.—Glendo Reservoir storage (predicted for WY 2023).

Ownerships

Most Probable Condition - 2023

Stored water held in active conservation capacity accounts for various entities is referred to as their ownership. At the close of WY 2023, the North Platte Project storage ownership is expected to be at 366,700 AF (83 percent of average); the Kendrick Project storage ownership is expected to be at 690,300 AF (77 percent of average). Glendo storage ownership at the end of WY 2023 is expected to be 118,200 AF (90 percent of average).

Reasonable Minimum Condition - 2023

The North Platte Project storage ownership is expected to be at 70,100 AF (16 percent of average) at the close of WY 2023. The Kendrick Project storage ownership is expected to be near 689,600 AF, 77 percent of average at the close of the water year. The Kendrick Project ownership will not accrue any water under the reasonable minimum conditions, and Glendo storage ownership is expected to be 102,600 AF (78 percent of average) at the close of WY 2023.

Reasonable Maximum Condition - 2023

The North Platte Project storage ownership is expected to be at 706,600 AF (160 percent of average) at the close of WY 2023. The Kendrick Project storage ownership is expected to be near 1,137,600 AF, 128 percent of average at the close of the water year. Glendo storage ownership at the end of WY 2023 is expected to be 145,700 AF (111 percent of average).

Under reasonable maximum inflow conditions all storage water ownerships, in the North Platte River system, will fill during the WY 2023.

Figure 19 depicts a comparison of minimum, most probable, and maximum, Kendrick, North Platte Project, and Glendo Project Ownerships at the end of WY 2023.

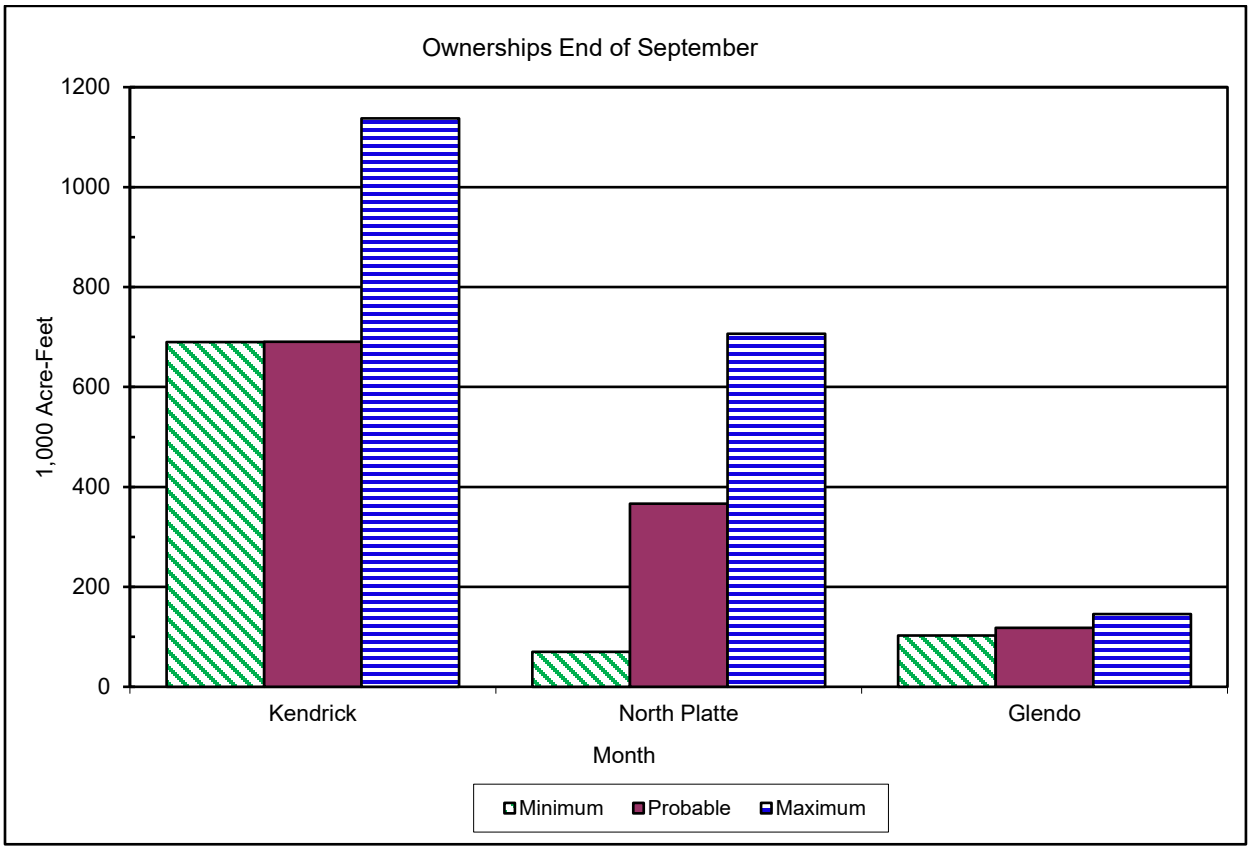

Figure 19.—Ownerships at the end of September (predicted for WY 2023).

Most Probable Generation Water Year 2023

The most probable power generation breakdown for each powerplant is shown in Table 26.

Table 26.—WY 2023 Most probable generation (Powerplant generation predicted for the most probable inflow scenario)

Powerplant	Gross generation[1] (GWh)	Percent of Average[2]
Seminoe	141.064	112
Kortes	156.210	118
Fremont Canyon	221.461	103
Alcova	117.244	109
Glendo	80.941	97
Guernsey	19.112	111
Total Basin	736.032	108

[1] Gross generation is based on October 2022 storage and most probable inflow. Gross generation is reported in gig hours (GWh).

[2] 30-year average (1993-2022).

The Facilities Management Division creates a schedule of maintenance for all generating units. See Table 27 for the maintenance schedule for WY 2023.

Table 27.—Proposed generating unit maintenance schedule (October 2022 through September 2023)

Facility and unit no.	Scheduled period	Description of work
Fremont Canyon Unit #1	Oct 25, 2022, To Dec 05, 2022	Inspection
Glendo Unit #1 and Unit #2	Nov 01, 2022, To Nov 22, 2022	Annual Maintenance
Glendo Unit #1 and Unit #2	Nov 01, 2022, To Nov 08, 2022	Governors
Glendo Unit #1 and Unit #2	Nov 10, 2022, To Nov 22, 2022	Governors (C&T)
Kortes all Units	Nov 16, 2022, To Nov 16, 2022	Black Start Testing
Kortes Unit #1	Nov 21, 2022, To Nov 23, 2022	Annual Maintenance
Kortes Unit #1	Nov 23, 2022, To Dec 05, 2022	Annual Maintenance
Guernsey Unit #1	Nov 28, 2022, To Dec 29, 2022	Doble / Hi Pot
Guernsey Unit #1	Nov 28, 2022, To Dec 13, 2022	Annual Maintenance
Guernsey Unit #2	Nov 28, 2022, To Dec 29, 2022	Annual Maintenance
Guernsey Unit #1	Dec 13, 2022, To Dec 29, 2022	Annual Maintenance – Check and Test
Guernsey Unit #1	Jan 09, 2023, To Mar 06, 2023	Penstock Inspection
Seminoe all Units	Jan 09, 2023, To Jan 09, 2023	Station Service
Alcova all Units	Jan 09, 2023, To Jan 17,2023	Penstock Inspection
Alcova Unit #1	Jan 10, 2023, To Mar 20, 2023	Unspecified
Seminoe Unit #1	Mar 06, 2023, To Mar 27, 2023	Major (C&T)

Appendix A

Operating Plans for Water Year 2023

Table A-1.—WY 2023 hydrologic operating plan for the most probable inflow scenario (752.8 KAF April – July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Reservoir (Initial content: 498.3 KAF)														
Total Inflow	kaf	29.8	28.1	24.5	22.8	24.2	54	114.2	235	311.7	91.9	33.5	18.9	988.6
Total Inflow	cfs	485	472	398	371	436	878	1,919	3,822	5,238	1,495	545	318	NA
Turbine Release	kaf	0	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	875.6
Jet flow Release	kaf	32.7	0	0	0	0	0	0	0	0	0	0	0	32.7
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	32.7	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.3
Total Release	cfs	532	529	530	530	529	530	1501	2601	2598	2601	1979	529	NA
Evaporation	kaf	3.1	1.6	1	0.8	0.8	1.9	3.7	3.8	7.3	8.4	6.6	4.4	43.4
EOM Content	kaf	493	490.5	482.1	472	466.6	486.9	508.4	576.3	727.2	651.4	557.3	541	NA
EOM Elevation	ft	6,323.2	6,323	6,322.2	6,321.3	6,320.8	6,322.7	6,324.5	6,330.1	6,340.8	6,335.6	6,328.6	6,327.3	NA
Kortes Reservoir (Initial content: 4.7 KAF)														
Total Inflow	kaf	32.7	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.3
Total Inflow	cfs	532	529	530	530	529	530	1,501	2,601	2,598	2,601	1,979	529	NA
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.2
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.2
Total Release	cfs	530	529	530	530	529	530	1,501	2,601	2,598	2,601	1,979	529	NA
Min Reservoir Release	cfs	529	529	529	529	529	530	530	530	530	530	530	530	NA
Max Reservoir Release	cfs	530	530	530	530	530	530	1500	2,600	2,600	2,600	2,600	530	NA
Pathfinder Reservoir (Initial content: 297.8 KAF)														
Sweetwater Inflow	kaf	3.2	3.5	3.6	3.7	3.8	5	12.2	17.2	15.6	4.7	1.9	1.2	75.6
Kortes-Path Gain	kaf	1.2	-0.2	0.7	1.1	2.3	4.5	5.9	7.7	2.5	3.3	5.8	3.5	38.3
Inflow from Kortes	kaf	32.6	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.2
Total Inflow	kaf	37	34.8	36.9	37.4	35.5	42.1	107.4	184.8	172.7	167.9	129.4	36.2	1,022.1
Total Inflow	cfs	602	585	600	608	639	685	1805	3005	2902	2731	2104	608	NA

Table A-1.—WY 2023 hydrologic operating plan for the most probable inflow scenario (752.8 KAF April – July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Turbine Release	kaf	0.1	20.5	23.3	23.3	21	45	46.6	85.8	132.4	164.4	161.4	137.4	861.2
Jet flow Release	kaf	4.7	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5	54.5
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	90.4	136.9	169	166	141.9	915.7
Total Release	cfs	78	420	454	454	454	807	859	1,470	2,301	2,749	2,700	2,385	NA
Evaporation	kaf	2.5	1.3	0.9	0.7	0.9	1.6	3.2	4.5	7.5	8.4	7.1	4.7	43.3
EOM Content	kaf	327.5	336	344.1	352.9	362.3	353.2	406.3	496.2	524.5	515	471.3	360.9	NA
EOM Elevation	ft	5,803.6	5,804.6	5,805.5	5,806.4	5,807.4	5,806.5	5,811.9	5,819.8	5,822	5,821.3	5,817.7	5,807.3	NA
Jet Flow Release	cfs	76	76	75	75	76	75	76	75	76	75	75	76	NA
Minimum Release	cfs	77.2	75	75	75	75	75	75	75	75	75	75	75	NA
Alcova Reservoir (Initial content: 181.5 KAF)														
Total Inflow	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	90.4	136.9	169	166	141.9	915.7
Total Inflow	cfs	78	420	454	454	454	807	859	1,470	2,301	2,749	2,700	2,385	NA
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	79.9	122.2	149.1	149.1	131.5	842.6
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Casper Canal Release	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Total Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	89.4	135.5	167.4	164.6	140.8	908.5
Total Release	cfs	449	450	450	450	450	800	450	1,454	2,277	2,722	2,677	2,366	NA
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1	1.4	1.6	1.4	1.1	9.3
EOM Content	kaf	158	155.9	155.9	155.9	155.9	155.9	179.4	179.4	179.4	179.4	179.4	179.4	NA
EOM Elevation	ft	5,488.9	5,487.9	5,487.9	5,487.9	5,487.9	5,487.9	5,498	5,498	5,498	5,498	5,498	5,498	NA
Gray Reef Reservoir (Initial content: 1.2 KAF)														
Total Inflow	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	79.9	122.2	149.1	149.1	131.5	842.6
Total Inflow	cfs	449	450	450	450	450	800	450	1,299	2,054	2,425	2,425	2,210	NA
Total Release	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	79.9	122.1	149	149	131.4	842.3
Total Release	cfs	450	450	450	450	450	800	450	1,299	2,052	2,423	2,423	2,208	NA
Min Reservoir Release	cfs	450	450	450	450	450	800	450	450	1,500	2,400	2,400	2,185	NA

Table A-1.—WY 2023 hydrologic operating plan for the most probable inflow scenario (752.8 KAF April – July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Max Reservoir Release	cfs	450	450	450	450	450	800	450	1,300	2,600	2,600	2,600	2,600	NA
Glendo Reservoir (Initial content: 127.2 KAF)														
Alcova-Glendo Gain	kaf	9.2	9.9	7.3	9.1	14.7	16.6	41.4	72	18.4	-0.6	-1.9	4.3	200.4
Inflow from Gray Reef	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	78.5	120.7	147.6	147.6	130	835.3
Total Inflow	kaf	36.9	36.7	35	36.8	39.7	65.8	68.2	151.9	140.5	148.4	147.1	135.7	1,042.7
Total Inflow	cfs	600	617	569	598	715	1,070	1,146	2,470	2,361	2,413	2,392	2,281	NA
Turbine Release	kaf	0	0	0	0	0	0	11.2	106.9	115.6	227.7	221.4	170.2	853
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation Release	kaf	0	0	0	0	0	0	0	0	0	77	81.9	0	158.9
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	12.7	108.4	117.1	306.2	304.8	171.7	1,029.9
Total Release	cfs	24	25	24	24	27	24	213	1,763	1,968	4,980	4,957	2,886	NA
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.7	3.1	4.5	6.6	6.6	4.2	2.1	33
EOM Content	kaf	161.4	195.8	228.6	263.2	300.6	363.2	415.6	453.2	468.6	302.8	139.5	100	NA
EOM Elevation	ft	4,596.6	4,602.2	4,606.9	4,611.5	4,616	4,622.9	4,628.2	4,631.7	4,633	4,616.3	4,592.7	4,584.1	NA
Guernsey Reservoir (Initial content: 3.7 KAF)														
Glendo-Guernsey Gain	kaf	3.1	2	1.8	1.4	1	0.7	6	7.5	3.5	1.8	0.1	5.2	34.1
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	12.7	108.4	117.1	306.2	304.8	171.7	1,029.9
Total Inflow	kaf	4.6	3.5	3.3	2.9	2.5	2.2	18.7	115.9	120.6	308	304.9	176.9	1064
Total Inflow	cfs	75	59	54	47	45	36	314	1,885	2,027	5,009	4,959	2,973	NA
Turbine Release	kaf	0	0	0	0	0	0	9.6	53.6	51.8	53.6	53.6	55.8	278
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Spillway Release	kaf	0	0	0	0	0	0	0	60.4	64.8	250.2	247.9	146.3	769.6
Total Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	10	115.2	119.6	306.9	304	202.4	1,059.7
Total Release	cfs	5	3	5	5	4	5	168	1,874	,2010	4,991	4,944	3,401	NA

Table A-1.—WY 2023 hydrologic operating plan for the most probable inflow scenario (752.8 KAF April – July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Evaporation	kaf	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	1	1.1	0.9	0.5	6
EOM Content	kaf	7.8	10.9	13.7	16.1	18.2	19.8	28	28	28	28	28	2	NA
EOM Elevation	ft	4,398.1	4,401.1	4,403.4	4,405.1	4,406.4	4,407.4	4,411.9	4,411.9	4,411.9	4,411.9	4,411.9	4,388	NA
Physical EOM Cont.	kaf	1,153.6	1,195	1,230.3	1,266	1,309.5	1,384.9	1,543.6	1,739	1,933.6	1,682.5	1,381.4	1,189.2	NA

Table A-2.—WY 2023 ownership operating plan for the most probable inflow scenario (752.8 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
North Platte Pathfinder (initial ownership: 154.8 KAF)														
Net Accrual	kaf	33.1	30.7	28.3	27.1	29.7	62.1	129.3	254.8	221.8	0	0	0	816.9
Evaporation	kaf	1.1	0.7	0.5	0.5	0.6	1.4	3	4.6	10.3	13.2	9.7	5	50.6
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	156.2	259.6	161.3	577.1
EOM Ownership	kaf	187.9	218.6	246.9	274	303.7	365.8	495.1	749.9	971.7	802.3	533	366.7	NA
North Platte Guernsey (Initial ownership: 0 KAF)														
Net Accrual	kaf	0	0	8.8	10.2	15.5	11.1	0	0	0	0	0	0	45.6
Evaporation/Seepage	kaf	0	0	0.3	0.3	0.2	0.4	0.4	0.4	0.6	0.6	0	0	3.2
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	43.6	0	0	43.6
EOM Ownership	kaf	0	0	8.8	19	34.5	45.6	45.2	44.8	44.2	0	0	0	NA
Inland Lakes (Initial ownership: 0 KAF)														
Net Accrual	kaf	12	11.6	0	0	0	0	22.4	0	0	0	0	0	46
Evaporation/Seepage	kaf	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.4	0	0	0	0	1.6
Transfer from Ownership	kaf	0	0	0	0	0	0	10	35.2	0	0	0	0	45.2
EOM Ownership	kaf	12	23.6	23.5	23.4	23.3	23.2	35.6	0	0	0	0	0	NA
Kendrick (Initial ownership: 832.0 KAF)														
Net Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	5.7	3	2.1	1.7	1.9	3.7	6.6	7.6	10.8	10.3	8.8	6.6	68.8
Deliver from Ownership	kaf	0	0	0	0	0	0	0	10.9	14.7	19.7	16.9	10.7	72.9
EOM Ownership	kaf	826.3	823.3	821.2	819.5	817.6	813.9	807.3	788.8	763.3	733.3	707.6	690.3	NA
Glendo Unit (Initial ownership: 118.3 KAF)														
Accrual	kaf	0	0	0	0	0	5.8	24.8	0	0	0	0	0	30.6
Evaporation	kaf	0.8	0.4	0.3	0.3	0.3	0.5	1	1.4	2	1.9	1.6	1.2	11.7
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	6	5	8	19

Table A-2.—WY 2023 ownership operating plan for the most probable inflow scenario (752.8 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
EOM Ownership	kaf	117.5	117.1	116.8	116.5	116.2	121.5	145.3	143.9	141.9	134	127.4	118.2	NA
Re-regulation (Initial ownership: 0 KAF)														
Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation/Seepage	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM Total	kaf	0	0	0	0	0	0	0	0	0	0	0	0	NA
City of Cheyenne (Initial ownership: 7.2 KAF)														
Inflow	kaf	0.7	2.5	0.7	0.5	0.6	0.8	0.3	0.6	2.7	1.1	0.7	0.7	11.9
Evaporation	kaf	0.1	0	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	1.1
Release	kaf	0	0	0	0	0	0	0	4	1.6	0.5	0	0	6.1
Ownership	kaf	7.8	10.3	11	11.5	12.1	12.8	13	9.5	10.4	10.8	11.3	11.9	NA
PacifiCorp (Initial ownership: 2 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Ownership	kaf	2	2	2	2	2	2	2	2	2	2	2	2	NA
Other (Initial ownership: 0.1 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Ownership	kaf	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	NA

Table A-3.—WY 2023 irrigation operating plan for the most probable inflow scenario (752.8 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Kendrick (Casper Canal)														
Requested	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Delivered	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Kendrick (River)														
Requested	kaf	0	0	0	0	0	0	0	1.4	1.4	1.4	1.4	1.4	7
Delivered	kaf	0	0	0	0	0	0	0	1.4	1.4	1.4	1.4	1.4	7
Guernsey Deliveries														
North Platte Requested	kaf	0	0	0	0	0	0	0	80	117.6	300.9	299	194.4	991.9
Glendo Requested	kaf	0	0	0	0	0	0	0	0	2	6	5	8	21
Inland Lakes Requested	kaf	0	0	0	0	0	0	10	35.2	0	0	0	0	45.2
Total Requirement	kaf	0	0	0	0	0	0	10	115.2	119.6	306.9	304	202.4	1,058.1
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Actual Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	10	115.2	119.6	306.9	304	202.4	1,059.7
Ownership EOM Cont.	kaf	0	0	0	0	0	0	0	80	117.6	300.9	299	194.4	991.9

Table A-4.—WY 2023 power generation operating plan for the most probable inflow scenario (752.8 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Power Plant														
Turbine Release	kaf	0	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	875.6
Bypass	kaf	32.7	0	0	0	0	0	0	0	0	0	0	0	32.7
Maximum Generation	gwh	0	28.642	29.497	29.334	26.362	29.328	28.752	30.542	31.533	33.281	31.697	29.684	328.652
Actual Generation	gwh	0	4.877	5.029	4.999	4.485	4.998	13.879	25.409	25.644	26.863	19.854	5.027	141.064
Percent Max. Generation	NA	0	17	17	17	17	17	48	83	81	81	63	17	43
Average kwh/AF	NA	0	155	154	153	153	153	155	159	166	168	163	160	161
Kortes Power Plant														
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	89.3	159.9	154.6	159.9	121.7	31.5	908.2
Bypass	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Generation	gwh	28.346	26.712	27.606	27.606	24.94	27.606	26.712	27.606	26.712	27.606	27.606	26.712	325.77
Actual Generation	gwh	5.607	5.418	5.607	5.607	5.057	5.607	15.36	27.503	26.591	27.503	20.932	5.418	156.21
Percent Max. Generation	NA	20	20	20	20	20	20	58	100	100	100	76	20	48
Average kwh/AF	NA	172	172	172	172	172	172	172	172	172	172	172	172	172
Fremont Canyon														
Turbine Release	kaf	0.1	20.5	23.3	23.3	21	45	46.6	85.8	132.4	164.4	161.4	137.4	861.2
Bypass	kaf	4.7	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5	54.5
Maximum Generation	gwh	0.049	40.438	41.938	42.081	38.115	42.211	41.126	43.474	42.736	44.284	43.969	41.602	462.023
Actual Generation	gwh	0.025	5.067	5.779	5.798	5.242	11.233	11.714	22.058	34.586	43.053	41.967	34.939	221.461
Percent Max Generation	NA	51	13	14	14	14	27	28	51	81	97	95	84	48
Average kwh/AF	NA	250	247	248	249	250	250	251	257	261	262	260	254	257

Table A-4.—WY 2023 power generation operating plan for the most probable inflow scenario (752.8 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Alcova Power Plant														
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	79.9	122.2	149.1	149.1	131.5	842.6
Bypass	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Generation	gwh	27.229	26.473	27.472	27.472	24.82	27.472	26.275	27.552	26.656	27.552	27.552	26.656	323.181
Actual Generation	gwh	3.819	3.65	3.767	3.767	3.4	6.691	3.698	11.186	17.108	20.874	20.874	18.41	117.244
Percent max. Generation	NA	14	14	14	14	14	24	14	41	64	76	76	69	36
Average kwh/AF	NA	138	136	136	136	136	136	138	140	140	140	140	140	139
Glendo Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	11.2	106.9	115.6	227.7	221.4	170.2	853
Bypass	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	78.5	83.4	1.5	176.9
Maximum Generation	gwh	0	0	0	0	0	0	23.607	25.689	25.614	24.291	19.416	13.278	131.895
Actual Generation	gwh	0	0	0	0	0	0	1.198	11.806	13.004	24.291	19.416	11.226	80.941
Percent Max. Generation	NA	0	0	0	0	0	0	5	46	51	100	100	85	61
Average kwh/AF	NA	0	0	0	0	0	0	107	110	112	107	88	66	95
Guernsey Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	9.6	53.6	51.8	53.6	53.6	55.8	278
Bypass	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	61.6	67.8	253.3	250.4	146.6	781.7
Maximum Generation	gwh	0	0	0	0	0	0	3.588	3.795	3.667	3.795	3.795	3.404	22.044
Actual Generation	gwh	0	0	0	0	0	0	0.656	3.795	3.667	3.795	3.795	3.404	19.112
Percent Max. Generation	NA	0	0	0	0	0	0	18	100	100	100	100	100	87
Average kwh/AF	NA	0	0	0	0	0	0	68	71	71	71	71	61	69

Table A-5.—WY 2023 hydrologic operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Reservoir (Initial content: 498.3 KAF)														
Total Inflow	kaf	21.7	21.6	20.7	18.8	20.6	43.3	69.5	117.5	119.6	32.7	19.3	13.1	518.4
Total Inflow	cfs	353	363	337	306	371	704	1168	1911	2010	532	314	220	NA
Turbine Release	kaf	0	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	601.6
Jet Flow Release	kaf	32.7	0	0	0	0	0	0	0	0	0	0	0	32.7
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	32.7	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.3
Total Release	cfs	532	529	530	530	529	530	2000	2000	1395	875	530	529	NA
Evaporation	kaf	3.1	1.6	1	0.8	0.8	1.8	3.3	3.1	5.1	5.6	4.6	3.3	34.1
EOM Content	kaf	484.9	475.9	463.7	449.6	440.6	450.3	397.8	385.8	418.4	392.3	375.1	354.1	NA
EOM Elevation	ft	6,322.5	6,321.7	6,320.6	6,319.2	6,318.4	6,319.3	6,314.1	6,312.9	6,316.2	6,313.6	6,311.7	6,309.4	NA
Kortes Reservoir (Initial content: 4.7 KAF)														
Total Inflow	kaf	32.7	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.3
Total Inflow	cfs	532	529	530	530	529	530	2,000	2,000	1,395	875	530	529	NA
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.2
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.2
Total Release	cfs	530	529	530	530	529	530	2,000	2,000	1,395	875	530	529	NA
Minimum Reservoir Release	cfs	529	529	529	529	529	529	529	529	529	529	529	529	NA
Maximum Reservoir Release	cfs	530	530	530	530	530	530	2,000	2,000	1,500	1,500	530	530	NA
Pathfinder Reservoir (Initial content: 297.8 KAF)														
Sweetwater Inflow	kaf	1.9	2.3	2.2	2.1	1.9	3.6	8.8	5.4	3.7	1.3	0.9	0.7	34.8
Kortes-Path Gain	kaf	-1.1	-1.5	-1.8	0.2	1.4	3.5	2.2	-1.4	-6.6	-5	-2.7	-0.5	-13.3
Inflow from Kortes	kaf	32.6	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.2
Total Inflow	kaf	33.4	32.3	33	34.9	32.7	39.7	130	127	80.1	50.1	30.8	31.7	655.7
Total Inflow	cfs	543	543	537	568	589	646	2,185	2,065	1,346	815	501	533	NA
Turbine Release	kaf	0.2	20.5	23.3	23.3	21	45	46.6	65.9	129.3	138.4	61.6	53.6	628.7
Jet flow Release	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5	54.4

Table A-5.—WY 2023 hydrologic operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	70.5	133.8	143	66.2	58.1	683.1
Total Release	cfs	78	420	454	454	454	807	859	1147	2249	2326	1077	976	NA
Evaporation	kaf	2.4	1.4	0.8	0.8	0.8	1.6	3.1	4.3	6.5	6	4.6	3.2	35.5
EOM Content	kaf	324	329.9	334.2	340.4	347.1	335.6	411.4	463.6	403.4	304.5	264.5	234.9	NA
EOM Elevation	ft	5,803.2	5,803.9	5,804.4	5,805.1	5,805.8	5,804.5	5,812.4	5,817.1	5,811.6	5,800.9	5,795.8	5,791.6	NA
Jet Flow Release	cfs	75	76	75	75	76	75	76	75	76	75	75	76	NA
Minimum Release	cfs	75	75	75	75	75	75	75	75	75	75	75	75	NA
Alcova Reservoir (Initial content: 181.5 KAF)														
Total Inflow	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	70.5	133.8	143	66.2	58.1	683.1
Total Inflow	cfs	78	420	454	454	454	807	859	1147	2249	2326	1077	976	NA
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	60	119.1	123.1	49.3	47.7	610
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Casper Canal Release	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Total Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	69.5	132.4	141.4	64.8	57	675.9
Total Release	cfs	449	450	450	450	450	800	450	1130	2225	2300	1054	958	NA
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1	1.4	1.6	1.4	1.1	9.3
EOM Content	kaf	158	155.9	155.9	155.9	155.9	155.9	179.4	179.4	179.4	179.4	179.4	179.4	NA
EOM Elevation	ft	5,488.9	5,487.9	5,487.9	5,487.9	5,487.9	5,487.9	5,498	5,498	5,498	5,498	5,498	5,498	NA
Gray Reef Reservoir (Initial content: 1.2 KAF)														
Total Inflow	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	60	119.1	123.1	49.3	47.7	610
Total Inflow	cfs	449	450	450	450	450	800	450	976	2,002	2,002	802	802	NA
Total Release	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	60	119	123	49.2	47.6	609.7
Total Release	cfs	450	450	450	450	450	800	450	976	2,000	2,000	800	800	NA
Minimum Reservoir Release	cfs	450	450	450	450	450	800	450	450	2,000	2,000	800	800	NA
Maximum Reservoir Release	cfs	450	450	450	450	450	800	450	975	2,000	2,000	800	800	NA
Glendo Reservoir (Initial content: 127.2 KAF)														

Table A-5.—WY 2023 hydrologic operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Alcova-Glendo Gain	kaf	8.7	10.4	7.2	7.8	9	12.4	13.6	16.9	0.5	-1.4	-1	5.8	89.9
Inflow from Gray Reef	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	60	117.6	121.6	47.8	46.2	604.1
Total Inflow	kaf	36.4	37.2	34.9	35.5	34	61.6	40.4	76.9	119.5	121.6	48.2	53.4	699.6
Total Inflow	cfs	592	625	568	577	612	1002	679	1251	2008	1978	784	897	NA
Turbine Release	kaf	0	0	0	0	0	0	17.7	22.3	74.7	227.3	221.4	66.5	629.9
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation Release	kaf	0	0	0.5	0.5	0	0	0	0	0	28	12.3	0	41.3
Total Release	kaf	1.5	1.5	2	2	1.5	1.5	19.2	23.8	76.2	256.8	235.2	68	689.2
Total Release	cfs	24	25	33	33	27	24	323	387	1281	4176	3825	1143	NA
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.6	2.9	4.3	6.3	6.6	4.1	2	32
EOM Content	kaf	160.9	195.8	228	260.8	292.5	351	369.3	418.1	453.7#	310.5	118	100	NA
EOM Elevation	ft	4,596.6	4,602.2	4,606.8	4,611.2	4,615.1	4,621.7	4,623.6	4,628.4	4,631.7	4,617.2	4,588.2	4,584.1	NA
Guernsey Reservoir (Initial content: 3.7 KAF)														
Glendo-Guernsey Gain	kaf	2.2	1.5	1.2	1	1.2	1.2	0.1	2.1	-1.6	-2.8	-1.6	1.9	6.4
Inflow from Glendo	kaf	1.5	1.5	2	2	1.5	1.5	19.2	23.8	76.2	256.8	235.2	68	689.2
Total Inflow	kaf	3.7	3	3.2	3	2.7	2.7	19.3	25.9	74.6	254	233.6	69.9	695.6
Total Inflow	cfs	60	50	52	49	49	44	324	421	1254	4131	3799	1175	NA
Turbine Release	kaf	0	0	0	0	0	0	9.6	23.9	51.8	53.6	53.6	55.8	248.3
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Spillway Release	kaf	0	0	0	0	0	0	0	0	18.8	196.2	176.6	39.3	430.9
Total Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	10	25.1	73.6	252.9	232.7	95.4	691.3
Total Release	cfs	5	3	5	5	4	5	168	408	1237	4113	3785	1603	NA
Evaporation	kaf	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.8	1	1.1	0.9	0.5	6
EOM Content	kaf	7	9.6	12.3	14.8	17.1	19.2	28	28	28	28	28	2	NA
EOM Elevation	ft	4,397.2	4,399.9	4,402.3	4,404.2	4,405.7	4,407.1	4,411.9	4,411.9	4,411.9	4,411.9	4,411.9	4,388	NA
Physical EOM Cont.	kaf	1,140.7	1,173	1,200	1,227.4	1,259.1	1,317.9	1,391.8	1,480.8	1,488.8	1,220.6	970.9	876.3	NA

Table A-6.—WY 2023 ownership operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
North Platte Pathfinder (initial ownership: 154.8 KAF)														
Net Accrual	kaf	21.5	21.7	20.6	20.6	23.4	49.2	78	117.7	35	0	0	0	387.7
Evaporation	kaf	1	0.7	0.5	0.5	0.5	1.2	2.5	3.8	7	7.6	4.6	1.5	31.4
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	177.7	214.6	66.4	458.7
EOM Ownership	kaf	176.3	198	218.6	239.2	262.6	311.8	389.8	507.5	542.5	357.2	138	70.1	NA
North Platte Guernsey (Initial ownership: 0 KAF)														
Net Accrual	kaf	0	0	8.1	8.5	10	13.2	0	6.1	0	0	0	0	45.9
Evaporation/Seepage	kaf	0	0	0.3	0.3	0.2	0.4	0.3	0.4	0.6	0.6	0	0	3.1
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	44.4	0	0	44.4
EOM Ownership	kaf	0	0	8.1	16.6	26.6	39.8	39.5	45.6	45	0	0	0	NA
Inland Lakes (Initial ownership: 0 KAF)														
Net Accrual	kaf	10.6	11.6	0	0	0	0	13.5	0	0	0	0	0	35.7
Evaporation/Seepage	kaf	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0	0	0	0	1.4
Transfer from Ownership	kaf	0	0	0	0	0	0	10	25.1	0	0	0	0	35.1
EOM Ownership	kaf	10.6	22.2	22.1	22	21.9	21.8	25.3	0	0	0	0	0	NA
Kendrick (Initial ownership: 832.0 KAF)														
Net Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	5.6	3.1	2	1.8	1.9	3.7	6.5	7.8	10.9	10.8	9.4	7.4	70.9
Deliver from Ownership	kaf	0	0	0	0	0	0	0	9.5	14.7	19.7	16.9	10.7	71.5
EOM Ownership	kaf	826.4	823.3	821.3	819.5	817.6	813.9	807.4	790.1	764.5	734	707.7	689.6	NA
Glendo Unit (Initial ownership: 118.3 KAF)														
Accrual	kaf	0	0	0	0	0	0	0	12.5	0	0	0	0	12.5
Evaporation	kaf	0.8	0.4	0.3	0.3	0.3	0.5	1	1.1	1.7	1.8	1.5	1.2	10.9
Deliver from Ownership	kaf	0	0	0	0	0	0	0	0	0	6	3.2	8	17.2
EOM Ownership	kaf	117.4	117	116.7	116.4	116.1	115.6	114.6	126	124.3	116.5	111.8	102.6	NA

Table A-6.—WY 2023 ownership operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Re-regulation (Initial ownership: 0 KAF)														
Accrual	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation/Seepage	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM total	kaf	0	0	0	0	0	0	0	0	0	0	0	0	NA
City of Cheyenne (Initial ownership: 7.2 KAF)														
Inflow	kaf	0.7	2.5	0.7	0.5	0.6	0.8	0.3	0.6	2.7	1.1	0.7	0.7	11.9
Evaporation	kaf	0.1	0	0	0	0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	1.2
Release	kaf	0	0	0	0	0	0	0	4	1.6	0.5	0	0	6.1
Ownership	kaf	7.9	10.4	11.1	11.6	12.2	12.9	13.1	9.5	10.4	10.8	11.3	11.9	NA
PacifiCorp (Initial ownership: 2 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Ownership	kaf	2	2	2	2	2	2	2	2	2	2	2	2	NA
Other (Initial ownership: 0.1 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Ownership	kaf	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	NA

Table A-7.—WY 2023 irrigation operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Kendrick (Casper Canal)														
Requested	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Delivered	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Kendrick (River)														
Requested	kaf	0	0	0	0	0	0	0	0	1.4	1.4	1.4	1.4	5.6
Delivered	kaf	0	0	0	0	0	0	0	0	1.4	1.4	1.4	1.4	5.6
Guernsey Deliveries														
North Platte Required	kaf	0	0	0	0	0	0	0	0	71.6	246.9	229.5	87.4	635.4
Glendo Required	kaf	0	0	0	0	0	0	0	0	2	6	3.2	8	19.2
Inland Lakes Required	kaf	0	0	0	0	0	0	10	25.1	0	0	0	0	35.1
Total Requirement	kaf	0	0	0	0	0	0	10	25.1	73.6	252.9	232.7	95.4	689.7
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Actual Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	10	25.1	73.6	252.9	232.7	95.4	691.3
Ownership EOM Cont.	kaf	0	0	0	0	0	0	0	0	71.6	246.9	229.5	87.4	635.4

Table A-8.—WY 2023 power generation operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Power Plant														
Turbine Release	kaf	0	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	601.6
Bypass	kaf	32.7	0	0	0	0	0	0	0	0	0	0	0	32.7
Maximum Generation	gwh	0	28.446	29.194	28.956	25.948	28.735	27.43	27.632	27.022	27.994	27.419	26.04	304.816
Actual Generation	gwh	0	4.841	4.975	4.955	4.443	4.928	17.73	17.926	12.183	7.914	4.724	4.505	89.124
Percent Max. Generation	NA	0	17	17	17	17	17	65	65	45	28	17	17	29
Average kwh/AF	NA	0	154	153	152	151	151	149	146	147	147	145	143	148
Kortes Power Plant														
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	119	123	83	53.8	32.6	31.5	634.2
Bypass	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Generation	gwh	28.346	26.712	27.606	27.606	24.94	27.606	26.712	27.606	26.712	27.606	27.606	26.712	325.77
Actual Generation	gwh	5.607	5.418	5.607	5.607	5.057	5.607	20.468	21.156	14.276	9.254	5.607	5.418	109.082
Percent Max. Generation	NA	20	20	20	20	20	20	77	77	53	34	20	20	33
Average kwh/AF	NA	172	172	172	172	172	172	172	172	172	172	172	172	172
Fremont Canyon														
Turbine Release	kaf	0.2	20.5	23.3	23.3	21	45	46.6	65.9	129.3	138.4	61.6	53.6	628.7
Bypass	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5	54.4
Maximum Generation	gwh	41.445	40.359	41.802	41.891	37.927	41.96	41.044	43.29	41.829	42.159	40.998	39.094	493.798
Actual Generation	gwh	0.049	5.057	5.76	5.772	5.216	11.166	11.691	16.87	33.059	34.505	14.935	12.808	156.888
Percent Max. Generation	NA	0	13	14	14	14	27	28	39	79	82	36	33	32
Average kwh/AF	NA	245	247	247	248	248	248	251	256	256	249	242	239	250
Alcova Power Plant														
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	60	119.1	123.1	49.3	47.7	610
Bypass	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Generation	gwh	27.229	26.473	27.472	27.472	24.82	27.472	26.275	27.552	26.656	27.552	27.552	26.656	323.181

Table A-8.—WY 2023 power generation operating plan for the minimum probable inflow scenario (339.3 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Actual Generation	gwh	3.819	3.65	3.767	3.767	3.4	6.691	3.698	8.4	16.674	17.234	6.902	6.678	84.68
Percent Max. Generation	NA	14	14	14	14	14	24	14	30	63	63	25	25	26
Average kwh/AF	NA	138	136	136	136	136	136	138	140	140	140	140	140	139
Glendo Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	17.7	22.3	74.7	227.3	221.4	66.5	629.9
Bypass	kaf	1.5	1.5	2	2	1.5	1.5	1.5	1.5	1.5	29.5	13.8	1.5	59.3
Maximum Generation	gwh	0	0	0	0	0	0	22.815	24.517	24.909	24.185	19.173	12.663	128.262
Actual Generation	gwh	0	0	0	0	0	0	1.853	2.393	8.259	24.185	19.173	4.23	60.093
Percent Max. Generation	NA	0	0	0	0	0	0	8	10	33	100	100	33	47
Average kwh/AF	NA	0	0	0	0	0	0	105	107	111	106	87	64	95
Guernsey Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	9.6	23.9	51.8	53.6	53.6	55.8	248.3
Bypass	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	21.8	199.3	179.1	39.6	443
Maximum Generation	gwh	0	0	0	0	0	0	3.585	3.795	3.667	3.795	3.795	3.404	22.041
Actual Generation	gwh	0	0	0	0	0	0	0.654	1.692	3.667	3.795	3.795	3.404	17.007
Percent Max. Generation	NA	0	0	0	0	0	0	18	45	100	100	100	100	77
Average kwh/AF	NA	0	0	0	0	0	0	68	71	71	71	71	61	68

Table A-9.—WY 2023 hydrologic operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Reservoir (Initial content: 498.3 KAF)														
Total Inflow	kaf	36.9	34.1	28.4	26.5	29	61	159.3	392.8	576.1	218.2	60.9	36.2	1,659.4
Total Inflow	cfs	600	573	462	431	522	992	2,677	6,388	9,682	3,549	990	608	NA
Turbine Release	kaf	0	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	180.4	145.3	31.5	1,196.8
Jet Flow Release	kaf	32.7	0	0	0	0	0	0	0	0	27.5	0	0	60.2
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	32.7	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	207.9	145.3	31.5	1,257
Total Release	cfs	532	529	530	530	1,500	1,921	3,000	3,001	3,000	3,381	2,363	529	NA
Evaporation	kaf	3.1	1.8	1	0.9	0.9	1.6	3	3.4	8.2	10.9	9	6.3	50.1
EOM Content	kaf	500.1	503.4	498.9	492.4	437.8	379.9	358	559.5	950	950	857.3	856.4	NA
EOM Elevation	ft	6,323.8	6,324.1	6,323.7	6,323.1	6,318.1	6,312.3	6,309.9	6,328.8	6,353.6	6,353.6	6,348.6	6,348.5	NA
Kortes Reservoir (Initial content: 4.7 KAF)														
Total Inflow	kaf	32.7	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	207.9	145.3	31.5	1,257
Total Inflow	cfs	532	529	530	530	1,500	1921	3,000	3,001	3,000	3,381	2,363	529	NA
Turbine Release	kaf	32.6	31.5	32.6	32.6	83.3	118.1	155.3	160.5	155.3	160.5	145.3	31.5	1,139.1
Spillway Release	kaf	0	0	0	0	0	0	23.2	24	23.2	47.4	0	0	117.8
Total Release	kaf	32.6	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	207.9	145.3	31.5	1,256.9
Total Release	cfs	530	529	530	530	1,500	1,921	3,000	3,001	3,000	3,381	2,363	529	NA
Min. Reservoir Release	cfs	530	530	530	530	529	529	3,000	3,000	3,000	3,000	530	530	NA
Max. Reservoir Release	cfs	530	530	530	530	1,500	2,600	3,100	3,100	3,100	3,600	3,600	530	NA

Table A-9.—WY 2023 hydrologic operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Pathfinder Reservoir (Initial content: 297.8 KAF)														
Sweetwater Inflow	kaf	3.4	3.6	2.7	2.5	2.7	6.4	19.1	45.3	44.7	13.3	4.8	3	151.5
Kortes-Path Gain	kaf	4.4	2.3	2.3	4.3	5.6	8.5	11	16.8	11.1	8.6	6.9	7.3	89.1
Inflow from Kortes	kaf	32.6	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	207.9	145.3	31.5	1,256.9
Total Inflow	kaf	40.4	37.4	37.6	39.4	91.6	133	208.6	246.6	234.3	229.8	157	41.8	1,497.5
Total Inflow	cfs	657	629	612	641	1,649	2,163	3,506	4,011	3,938	3,737	2,553	702	NA
Turbine Release	kaf	0.2	20.5	23.3	23.3	21	45	46.6	33.6	37.1	169.1	169.1	93.2	682
Jet Flow Release	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	72.3	69.3	4.5	186.8
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Release	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	38.2	41.6	241.4	238.4	97.7	868.8
Total Release	cfs	78	420	454	454	454	807	859	621	699	3926	3877	1642	NA
Evaporation	kaf	2.4	1.4	0.8	0.8	0.8	2.1	4.7	7.1	12.4	14.6	12.4	9	68.5
EOM Content	kaf	331	342	350.9	361.6	427.2	508.5	661.3	862.6	1,042.9	1,016.7	922.9	858	NA
EOM Elevation	ft	5,804	5,805.2	5,806.2	5,807.4	5,813.9	5,820.8	5,831.5	5,842.7	5,851.3	5,850.1	5,845.7	5,842.5	NA
Jet Flow Release	cfs	75	76	75	75	76	75	76	75	76	1,176	1,127	76	NA
Minimum Release	cfs	75	75	75	75	75	75	75	75	75	75	75	75	NA
Alcova Reservoir (Initial content: 181.5 KAF)														
Total Inflow	kaf	4.8	25	27.9	27.9	25.2	49.6	51.1	38.2	41.6	241.4	238.4	97.7	868.8
Total Inflow	cfs	78	420	454	454	454	807	859	621	699	3,926	3,877	1,642	NA
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	27.7	26.9	196.8	196.8	87.3	746.3
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	24.7	24.7	0	49.4
Casper Canal Release	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Total Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	37.2	40.2	239.8	237	96.6	861.6

Table A-9.—WY 2023 hydrologic operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Total Release	cfs	449	450	450	450	450	800	450	605	676	3,900	3,854	1,623	NA
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1	1.4	1.6	1.4	1.1	9.3
EOM Content	kaf	158	155.9	155.9	155.9	155.9	155.9	179.4	179.4	179.4	179.4	179.4	179.4	NA
EOM Elevation	ft	5,488.9	5,487.9	5,487.9	5,487.9	5,487.9	5,487.9	5,498	5,498	5,498	5,498	5,498	5,498	NA
Gray Reef Reservoir (Initial content: 1.2 KAF)														
Total Inflow	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	27.7	26.9	221.5	221.5	87.3	795.7
Total Inflow	cfs	449	450	450	450	450	800	450	450	452	3,602	3,602	1,467	NA
Total Release	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	27.7	26.8	221.4	221.4	87.2	795.4
Total Release	cfs	450	450	450	450	450	800	450	450	450	3,601	3,601	1,465	NA
Min. Reservoir Release	cfs	450	450	450	450	450	800	450	450	450	3600	3600	500	NA
Max. Reservoir Release	cfs	450	450	450	450	450	800	450	450	450	3600	3600	1466	NA
Glendo Reservoir (Initial content: 127.2 KAF)														
Alcova-Glendo Gain	kaf	17.1	17.1	8.2	15.7	14.4	20.4	61.3	184.8	71.5	7	6	12	435.5
Inflow from Gray Reef	kaf	27.7	26.8	27.7	27.7	25	49.2	26.8	27.7	26.8	221.4	221.4	87.2	795.4
Total Inflow	kaf	44.8	43.9	35.9	43.4	39.4	69.6	88.1	212.5	98.3	228.4	227.4	99.2	1,230.9
Total Inflow	cfs	729	738	584	706	709	1,132	1,481	3,456	1,652	3,715	3,698	1,667	NA
Turbine Release	kaf	0	0	0	0	0	0	26.1	160.6	94.8	232.4	221.4	210.2	945.5
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18
Spillway Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation Release	kaf	0	0	0	0	0	0	0	0	0	96.9	113.3	46.1	256.3
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	27.6	162.1	96.3	330.8	336.2	257.8	1,219.8
Total Release	cfs	24	25	24	24	27	24	464	2636	1618	5380	5468	4332	NA

Table A-9.—WY 2023 hydrologic operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.9	3.1	4.9	7	7.1	5.2	2.7	36.1
EOM Content	kaf	169.3	210.9	244.6	285.8	322.9	389.1	446.5	492	487	377.1	261.2	99.9	NA
EOM Elevation	ft	4,598	4,604.4	4,609.1	4,614.3	4,618.6	4,625.6	4,631.1	4,635	4,634.6	4,624.4	4,611.2	4,584	NA
Guernsey Reservoir (Initial content: 3.7 KAF)														
Glendo-Guernsey Gain	kaf	3.2	1.7	1.5	1.8	1.2	1	7.7	32.9	22.3	6.3	-0.3	4.3	83.6
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	27.6	162.1	96.3	330.8	336.2	257.8	1,219.8
Total Inflow	kaf	4.7	3.2	3	3.3	2.7	2.5	35.3	195	118.6	337.1	335.9	262.1	1,303.4
Total Inflow	cfs	76	54	49	54	49	41	593	3,171	1,993	5,482	5,463	4,405	NA
Turbine Release	kaf	0	0	0	0	0	0	24.6	53.3	51.7	53.6	53.6	55.8	292.6
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Spillway Release	kaf	0	0	0	0	0	0	0	139.7	64.9	279.3	278.9	231.5	994.3
Total Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	25	194.2	119.6	336	335	287.6	1,299
Total Release	cfs	5	3	5	5	4	5	420	3,158	2,010	5,465	5,448	4,833	NA
Evaporation	kaf	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.8	1	1.1	0.9	0.5	6.1
EOM Content	kaf	7.9	10.7	13.2	16	18.3	20.2	30	30	28	28	28	2	NA
EOM Elevation	ft	4,398.2	4,400.9	4,403	4,405	4,406.5	4,407.7	4,412.9	4,412.9	4,411.9	4,411.9	4,411.9	4,388	NA
Physical EOM Cont.	kaf	1,172.2	1,228.8	1,269.4	1,317.6	1,368	1,459.5	1,681.1	2,129.4	2,693.2	2,557.1	2,254.7	2,001.6	NA

Table A-10.—WY 2023 ownership operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
North Platte Pathfinder (initial ownership: 154.8 KAF)														
Net Accrual	kaf	43.7	39.3	32.8	32.7	36.6	74.4	185.9	448.8	21	0	0	0	915.2
Evaporation	kaf	1	0.7	0.6	0.6	0.7	1.5	3.5	6.1	14.8	14.1	12	8.1	63.7
Deliv from Ownership	kaf	0	0	0	0	0	0	0	0	0	0	112.4	216.8	329.2
EOM Ownership	kaf	198.5	237.8	270.6	303.3	339.9	414.3	600.2	1,049	1,070	1,055.9	931.5	706.6	NA
North Platte Guernsey (Initial ownership: 0 KAF)														
Net Accrual	kaf	0	0	9.4	17.2	15.3	3.7	0	0	0	0	0	0	45.6
Evaporation/Seepage	kaf	0	0	0.3	0.3	0.3	0.5	0.4	0.5	0.6	0.6	0.5	0	4
Deliv from Ownership	kaf	0	0	0	0	0	0	0	0	0	0	43	0	43
EOM Ownership	kaf	0	0	9.4	26.6	41.9	45.6	45.2	44.7	44.1	43.5	0	0	NA
Inland Lakes (Initial ownership: 0 KAF)														
Net Accrual	kaf	20	18.5	0	0	0	0	7.5	0	0	0	0	0	46
Evaporation/Seepage	kaf	0.3	0.3	0.1	0.1	0.1	0.1	0.3	0.2	0	0	0	0	1.5
Transfer from Ownership	kaf	0	0	0	0	0	0	25	20.4	0	0	0	0	45.4
EOM Ownership	kaf	20	38.5	38.4	38.3	38.2	38.1	20.6	0	0	0	0	0	NA
Kendrick (Initial ownership: 832.0 KAF)														
Net Accrual	kaf	0	0	0	0	0	0	0	0	412.4	0	0	0	412.4
Evaporation	kaf	5.7	3.2	1.9	1.8	1.8	3.8	6.7	8.3	11.2	15.8	13.4	10.1	83.7
Deliv from Ownership	kaf	0	0	0	0	0	0	0	9.5	0	0	15.5	9.3	34.3
EOM Ownership	kaf	826.3	823.1	821.2	819.4	817.6	813.8	807.1	789.3	1,201.7	1,185.9	1,157	1,137.6	NA
Glendo Unit (Initial ownership: 118.3 KAF)														
Accrual	kaf	0	0	0	0	0	17.2	36.3	0	0	0	0	0	53.5
Evaporation	kaf	0.8	0.5	0.3	0.3	0.2	0.6	1.1	1.7	2.3	2.1	1.8	1.4	13.1
Deliv from Ownership	kaf	0	0	0	0	0	0	0	0	0	0	5	8	13

Table A-10.—WY 2023 ownership operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
EOM Ownership	kaf	117.5	117	116.7	116.4	116.2	132.8	168	166.3	164	161.9	155.1	145.7	NA
Re-regulation (Initial ownership: 0 KAF)														
Accrual	kaf	0	0	0	0	0	0	24.9	43.9	133.4	0	0	0	202.2
Evaporation/Seepage	kaf	0	0	0	0	0	0	0	0.2	1	2.6	1.2	0	5
Release	kaf	0	0	0	0	0	0	0	0	0	100.9	96.3	0	197.2
EOM Total	kaf	0	0	0	0	0	0	24.9	68.6	201	97.5	0	0	NA
City of Cheyenne (Initial ownership: 7.2 KAF)														
Inflow	kaf	0.7	2.5	0.7	0.5	0.6	0.8	0.3	0.6	2.7	1.1	0.7	0.7	11.9
Evaporation	kaf	0.1	0	0	0	0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	1.1
Release	kaf	0	0	0	0	0	0	0	4	1.6	0.5	0	0	6.1
Ownership	kaf	7.8	10.3	11	11.5	12.1	12.8	13	9.4	10.3	10.7	11.3	11.9	NA
PacifiCorp (Initial ownership: 2 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Ownership	kaf	2	2	2	2	2	2	2	2	2	2	2	2	NA
Other (Initial ownership: 0.1 KAF)														
Inflow	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Evaporation	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Release	kaf	0	0	0	0	0	0	0	0	0	0.4	1.9	0	2.3
Ownership	kaf	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.3	-2.2	-2.2	NA

Table A-11.—WY 2023 irrigation operating plan for the maximum probable inflow scenario (1346.4 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Kendrick (Casper Canal)														
Requested	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Delivered	kaf	0	0	0	0	0	0	0	9.5	13.3	18.3	15.5	9.3	65.9
Kendrick (River)														
Requested	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Delivered	kaf	0	0	0	0	0	0	0	0	0	0	0	0	0
Guernsey Deliveries														
North Platte Require	kaf	0	0	0	0	0	0	0	173.8	117.6	330	330	279.6	1231
Glendo Require	kaf	0	0	0	0	0	0	0	0	2	6	5	8	21
Inland Lakes Require	kaf	0	0	0	0	0	0	25	20.4	0	0	0	0	45.4
Total Requirement	kaf	0	0	0	0	0	0	25	194.2	119.6	336	335	287.6	1,297.4
Seepage	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	1.2	3	3.1	2.5	0.3	12.1
Actual Release	kaf	0.3	0.2	0.3	0.3	0.2	0.3	25	194.2	119.6	336	335	287.6	1,299
Ownership EOM Cont.	kaf	0	0	0	0	0	0	0	173.8	117.6	330	330	279.6	1,231

Table A-12.—WY 2023 power generation operating plan for the maximum probable inflow scenario (1346 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Seminoe Power Plant														
Turbine Release	kaf	0	31.5	32.6	32.6	83.3	118.1	178.5	184.5	178.5	180.4	145.3	31.5	1,196.8
Bypass	kaf	32.7	0	0	0	0	0	0	0	0	27.5	0	0	60.2
Maximum Generation	gwh	0	28.828	29.782	29.677	26.29	28.062	26.148	28.986	32.405	32.37	32.752	31.962	327.262
Actual Generation	gwh	0	4.908	5.078	5.06	12.673	17.416	25.603	28.044	30.702	32.37	25.863	5.544	193.261
Percent Max. Generation	NA	0	17	17	17	48	62	98	97	95	100	79	17	59
Average kwh/AF	NA	0	156	156	155	152	147	143	152	172	179	178	176	161
Kortes Power Plant														
Turbine Release	kaf	32.6	31.5	32.6	32.6	83.3	118.1	155.3	160.5	155.3	160.5	145.3	31.5	1,139.1
Bypass	kaf	0	0	0	0	0	0	23.2	24	23.2	47.4	0	0	117.8
Maximum Generation	gwh	28.346	26.712	27.606	27.606	24.94	27.606	26.712	27.606	26.712	27.606	27.606	26.712	325.77
Actual Generation	gwh	5.607	5.418	5.607	5.607	14.328	20.313	26.712	27.606	26.712	27.606	24.992	5.418	195.926
Percent Max. Generation	NA	20	20	20	20	57	74	100	100	100	100	91	20	60
Average kwh/AF	NA	172	172	172	172	172	172	172	172	172	172	172	172	172
Fremont Canyon														
Turbine Release	kaf	0.2	20.5	23.3	23.3	21	45	46.6	33.6	37.1	169.1	169.1	93.2	682
Bypass	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	72.3	69.3	4.5	186.8
Maximum Generation	gwh	41.504	40.516	42.046	42.19	38.565	43.67	43.59	46.836	45.75	47.344	47.301	45.707	525.019
Actual Generation	gwh	0.049	5.077	5.793	5.813	5.304	11.621	12.416	9.306	10.375	47.344	47.301	26.039	186.438
Percent Max. Generation	NA	0	13	14	14	14	27	28	20	23	100	100	57	36
Average kwh/AF	NA	245	248	249	249	253	258	266	277	280	280	280	279	273

Table A-12.—WY 2023 power generation operating plan for the maximum probable inflow scenario (1346 KAF April - July inflow into Seminoe Reservoir)

Accounting Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Alcova Power Plant														
Turbine Release	kaf	27.6	26.8	27.7	27.7	25	49.2	26.8	27.7	26.9	196.8	196.8	87.3	746.3
Bypass	kaf	0	0	0	0	0	0	0	0	0	24.7	24.7	0	49.4
Maximum Generation	gwh	27.229	26.473	27.472	27.472	24.82	27.472	26.275	27.552	26.656	27.552	27.552	26.656	323.181
Actual Generation	gwh	3.819	3.65	3.767	3.767	3.4	6.691	3.698	3.878	3.766	27.552	27.552	12.222	103.762
Percent Max. Generation	NA	14	14	14	14	14	24	14	14	14	100	100	46	32
Average kwh/AF	NA	138	136	136	136	136	136	138	140	140	140	140	140	139
Glendo Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	26.1	160.6	94.8	232.4	221.4	210.2	945.5
Bypass	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	98.4	114.8	47.6	274.3
Maximum Generation	gwh	0	0	0	0	0	0	24.397	26.723	26.439	25.625	22.399	16.658	142.241
Actual Generation	gwh	0	0	0	0	0	0	2.849	18.17	10.874	25.625	22.399	16.658	96.575
Percent Max. Generation	NA	0	0	0	0	0	0	12	68	41	100	100	100	68
Average kwh/AF	NA	0	0	0	0	0	0	109	113	115	110	101	79	102
Guernsey Power Plant														
Turbine Release	kaf	0	0	0	0	0	0	24.6	53.3	51.7	53.6	53.6	55.8	292.6
Bypass	kaf	0.3	0.2	0.3	0.3	0.2	0.3	0.4	140.9	67.9	282.4	281.4	231.8	1,006.4
Maximum Generation	gwh	0	0	0	0	0	0	3.612	3.838	3.691	3.795	3.795	3.404	22.135
Actual Generation	gwh	0	0	0	0	0	0	1.699	3.838	3.691	3.795	3.795	3.404	20.222
Percent Max. Generation	NA	0	0	0	0	0	0	47	100	100	100	100	100	91
Average kwh/AF	NA	0	0	0	0	0	0	69	72	71	71	71	61	69

Appendix B

Glossary

Annual Operating Plan (AOP). —An annual publication prepared, reviewed, and presented to the public, with a summary of the actual operations and outlook for the coming water year.

Acre-Foot (AF). —A measure of volume of water equal to an area of one acre covered with water one foot deep (43,560 cubic feet).

Basin. —The watershed from which overland runoff flows into the North Platte River. When used alone in this report it refers to the North Platte River Drainage Basin upstream of Guernsey Dam.

Bypass. —That amount of water released from a reservoir other than through the powerplant for those reservoirs which have a powerplant connected to them.

Cubic foot per second (cfs). —The rate of discharge representing a volume of one cubic foot passing a given point during one second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute. The volume of water represented by a flow of one cubic foot per second for 24 hours is equivalent to 86,400 cubic feet, approximately 1.983 AF, or 646,272 gallons.

Evaporation pool. —A volume of water set aside in the accounting process from which reservoir evaporation is subtracted as it occurs (used in Glendo storage accounting).

Flood pool. —A physical space in the reservoir to be occupied only by water from flood events. In Glendo Reservoir, the volume between reservoir elevations 4635.0 feet and 4653.0 feet is reserved exclusively for flood control.

Gains. —Water which enters a river in a defined reach from a source other than an upstream release. When flow released into a reach is greater than the river flow exiting the lower end of the reach, the net gain is negative (loss of water in the reach).

Giga Watt hour (GWh). —A unit of power equal to one billion watt-hours.

Head - The difference in elevation between the reservoir water surface and the power generating turbines at a powerplant connected to a reservoir.

Hydromet. —Computer database software designed for the acquisition, processing, storage, and retrieval of hydrological and meteorological data gathered via satellite from remote sites.

Inflow. —As used in this report is any water which enters a reservoir irrespective of whether it originated in the reach or was released from an upstream storage reservoir.

Inland Lakes. —A series of four off-stream storage reservoirs on the Interstate Canal system in Nebraska which are used to store and re-release irrigation water (Lake Alice, Lake Minatare, Little Lake Alice, and Lake Winters Creek).

Megawatt (MW). —A unit of power equal to one million watts.

Natural flow. —River flow which has originated from a source other than reservoir storage.

NRCS. —The Natural Resources Conservation Service is a government agency under the Department of Agriculture.

Power pool. —That space in a reservoir which must be full in order to efficiently generate electrical power through an associated turbine generator.

Precipitation. —A deposit on the earth of hail, mist, rain, sleet, or snow.

Runoff. —That part of precipitation on the Basin which appears as flow in the North Platte River.

Silt Run. —The name given to the practice of flushing silt from Guernsey Reservoir into the North Platte River downstream where the silt laden water is diverted by irrigators. The silt tends to settle in the slower moving water of canals and laterals helping to seal the wetted perimeter and reduce seepage losses.

SNOTEL. —Snowpack telemetry network. A network of NRCS automated sites which continually monitor snowpack and weather conditions and transmit data to a data retrieval center in Portland, Oregon.

System. —As used in the report the System includes all storage, delivery, and power generating facilities on the mainstem of the North Platte River in Wyoming.

SWE.—Snow Water Equivalent is the amount of water in the snowpack expressed in inches.

Water Year (WY). —October 1 through September 30.

Appendix C

Historical Watershed Runoff

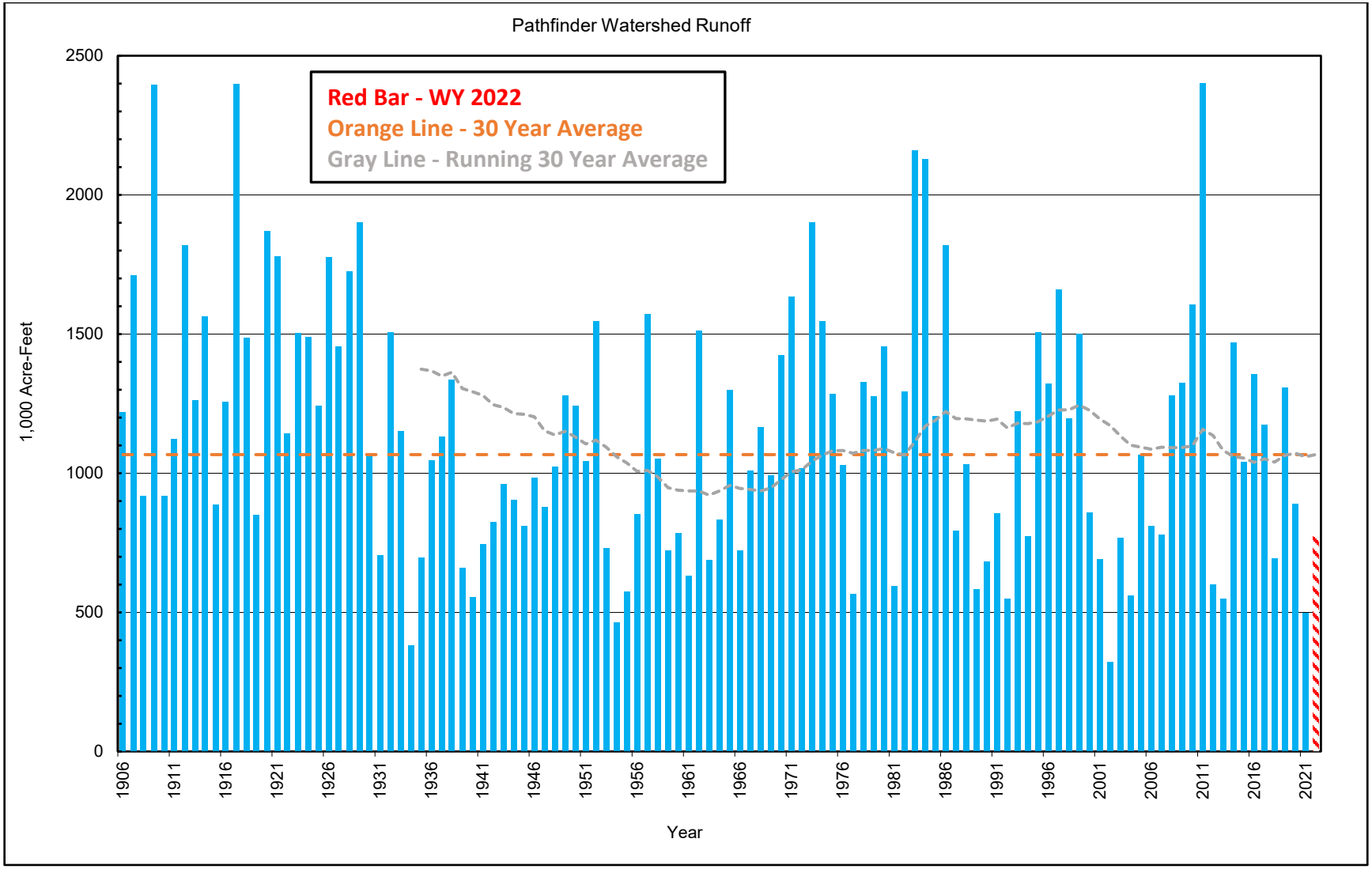

Figure C-1.—Pathfinder watershed runoff 1906-2022.

Appendix D

Reservoir Data Definition Sheets

General

Dam design and reservoir operation use reservoir capacity and water surface elevation data. To ensure uniformity in the establishment, use, and publication of this data the following standard definitions of water surface elevations and reservoir capacities shall be used.

Water Surface Elevation Definitions

Maximum Water Surface. —The highest acceptable water surface elevation with all factors affecting the safety of the structure considered. Normally it is the highest water surface elevation resulting from a computed routing of the inflow design flood through the reservoir on the basis of established operating criteria. It is the top of surcharge capacity.

Top of Exclusive Flood Control Capacity. —The reservoir water surface elevation at the top of the reservoir capacity allocated to exclusive use for the regulating of flood inflows to reduce damage downstream.

Maximum Controllable Water Surface Elevation. —The highest reservoir water surface elevation at which gravity flows from the reservoir can be completely shut off.

Top of Joint Use Capacity. —The reservoir water surface elevation at the top of the reservoir capacity allocated to joint use, i.e., flood control and conservation purposes.

Top of Active Conservation Capacity. —The reservoir water surface elevation at the top of the capacity allocated to the storage of water for conservation purposes only.

Top of Inactive Capacity. —The reservoir water surface elevation below which the reservoir will not be evacuated under normal conditions.

Top of Dead Capacity. —The lowest elevation in the reservoir from which water can be drawn by gravity.

Streambed at the Dam Axis. —The elevation of the lowest point in the streambed at the axis of the dam prior to construction. This elevation normally defines the zero for the area-capacity tables.

Capacity Definitions

Surcharge Capacity. —The reservoir capacity provided for use in passing the inflow design flood through the reservoir. It is the reservoir capacity between the maximum water surface elevation and the highest of the following elevations:

a) Top of exclusive flood control capacity
b) Top of joint use capacity
c) Top of active conservation capacity

Total Capacity. —The reservoir capacity below the highest of the elevations representing the top of exclusive flood control capacity, the top of joint use capacity, or the top of active conservation capacity. In the case of a natural lake which has been enlarged, the total capacity includes the dead capacity of the lake. Total capacity is used to express the total quantity of water which can be impounded and is exclusive of surcharge capacity.

Live Capacity. —The part of the total capacity from which water can be withdrawn by gravity. It is equal to the total capacity less the dead capacity.

Active Capacity. —The reservoir capacity normally usable for storage and regulation of reservoir inflows to meet established reservoir operating requirements. Active capacity extends from the highest of the top of exclusive flood control capacity, the top of joint use capacity, or the top of active conservation capacity to the top of inactive capacity. It is the total capacity less the sum of the inactive and dead capacities.

Exclusive Flood Control Capacity. —The reservoir capacity assigned to the sole purpose of regulating flood inflows to reduce flood damage downstream.

Joint Use Capacity. —The reservoir capacity assigned to flood control purposes during certain periods of the year and to conservation purposes during other periods of the year.

Active Conservation Capacity. —The reservoir capacity assigned to regulate reservoir inflow for irrigation, power, municipal, and industrial, fish and wildlife, navigation, recreation, water quality, and other purposes. It does not include exclusive flood control or joint use capacity. The active conservation capacity extends from the top of the active conservation capacity to the top of the inactive capacity.

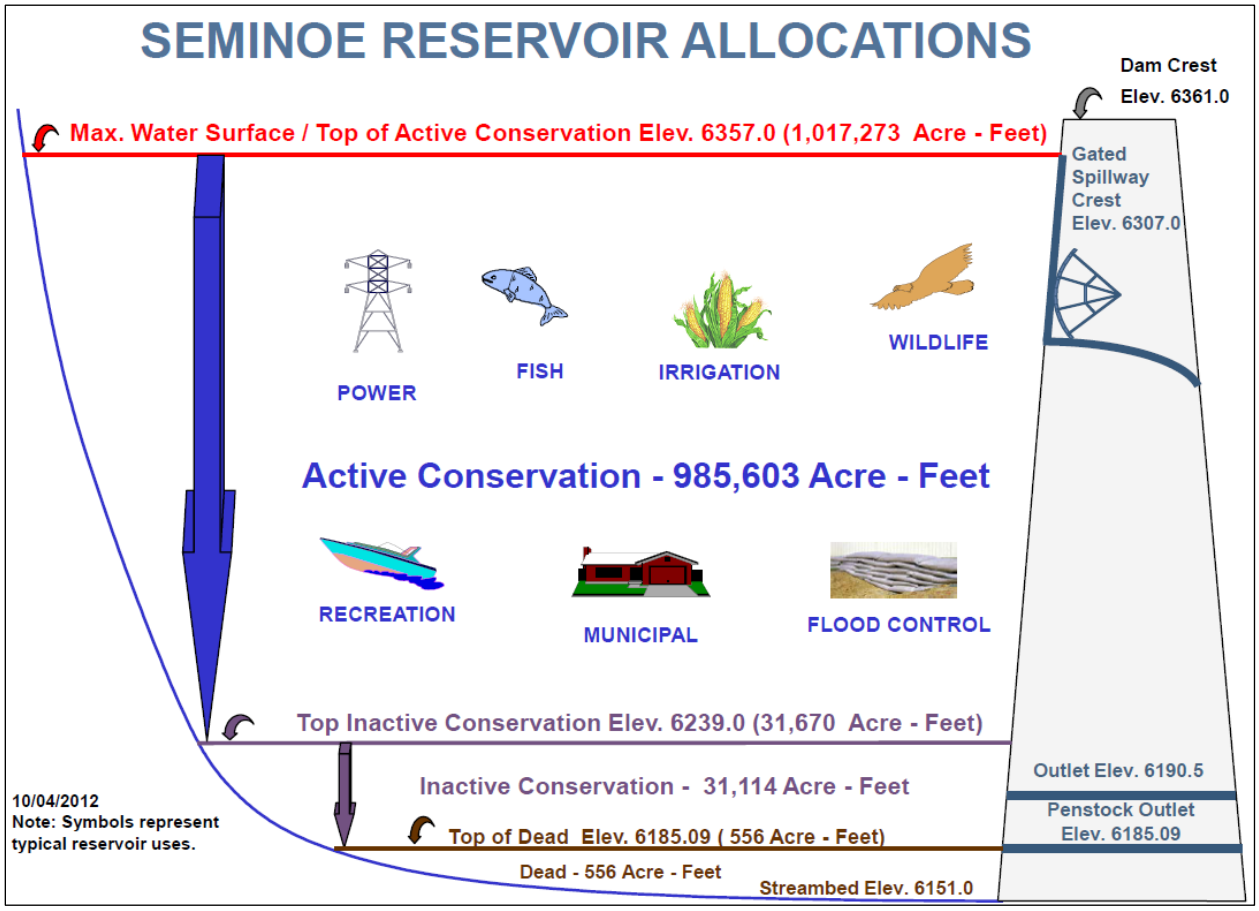

Figure D-1. —Seminoe Reservoir allocation.

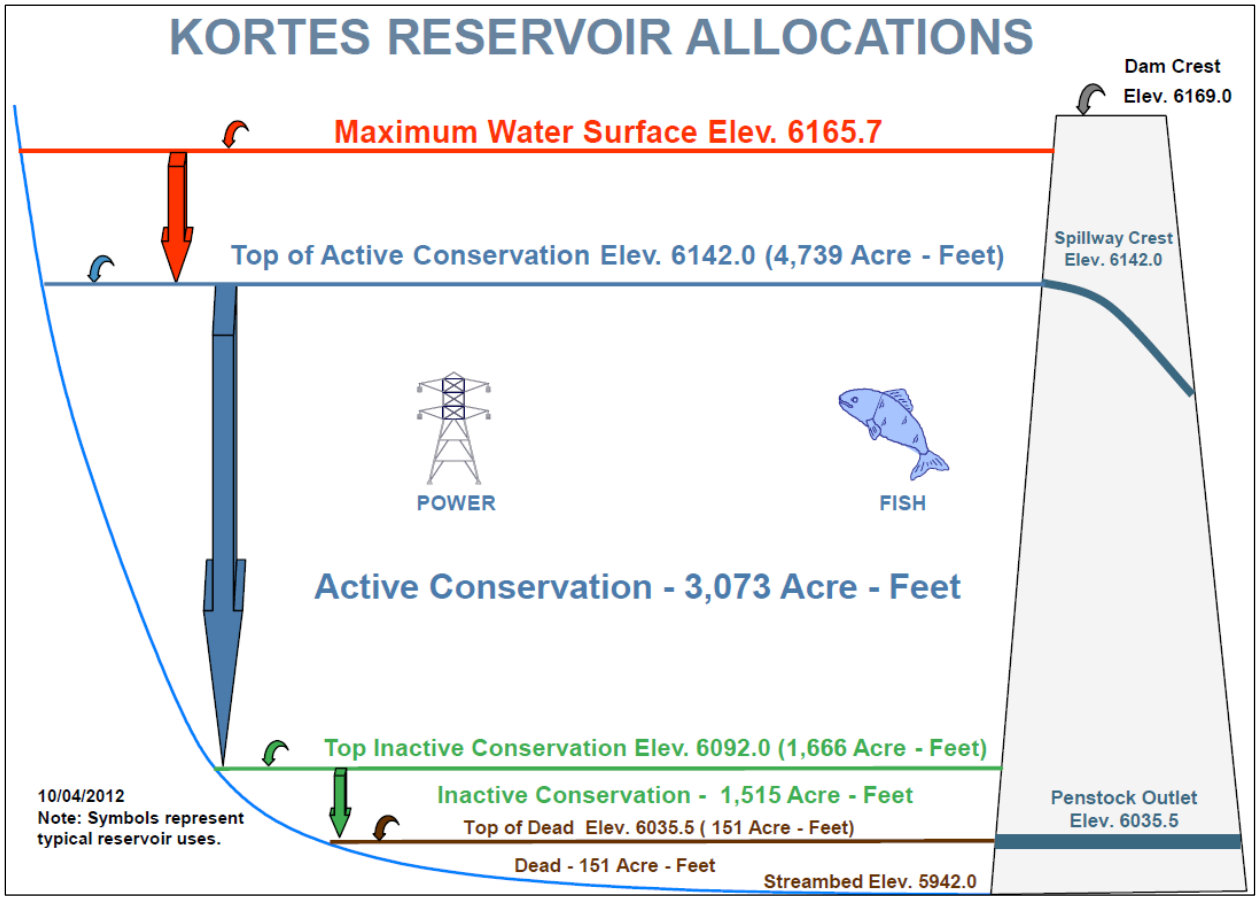

Figure D-2. —Kortes Reservoir allocation.

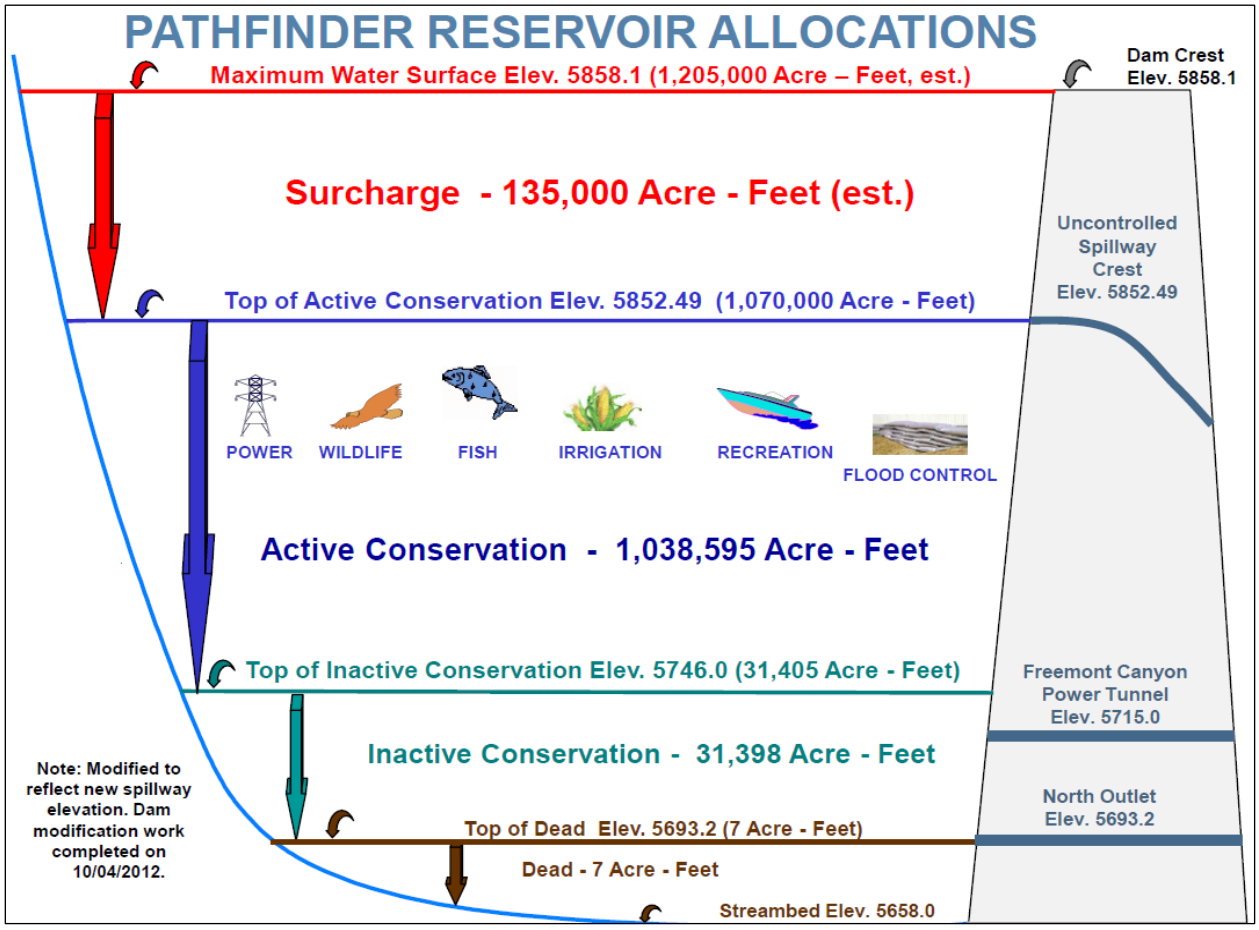

Figure D-3. —Pathfinder Reservoir allocation.

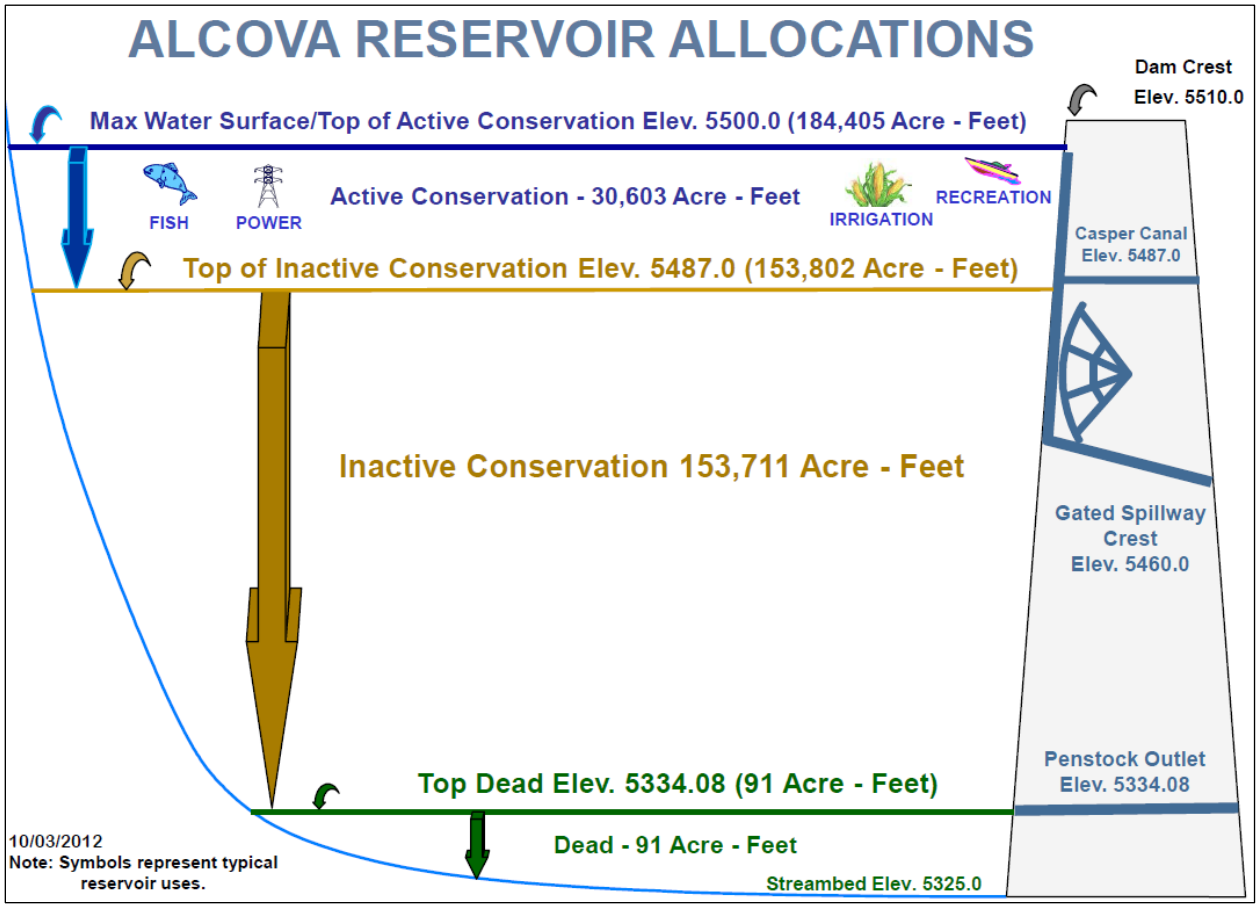

Figure D-4. —Alcova Reservoir allocation.

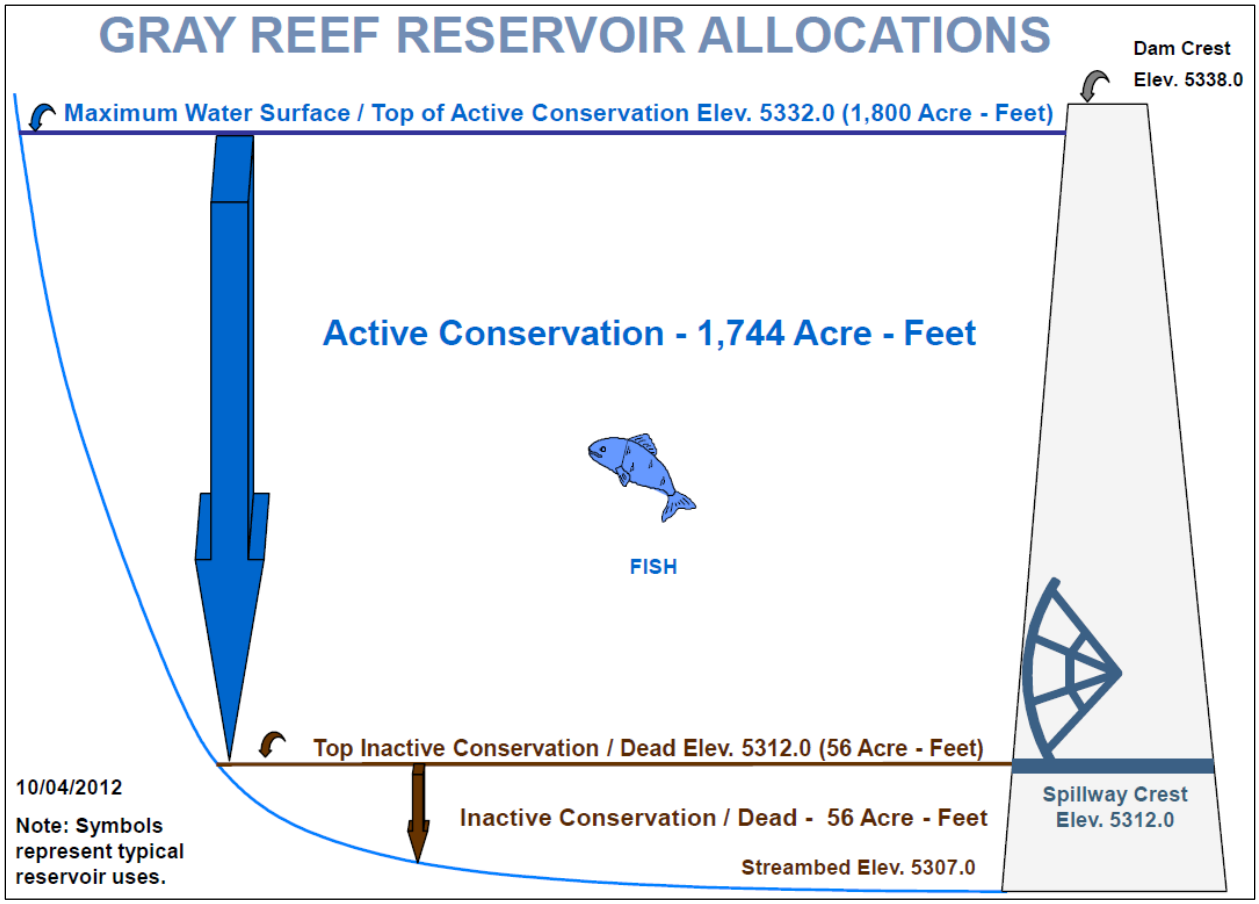

Figure D-5. —Gray Reef Reservoir allocation.

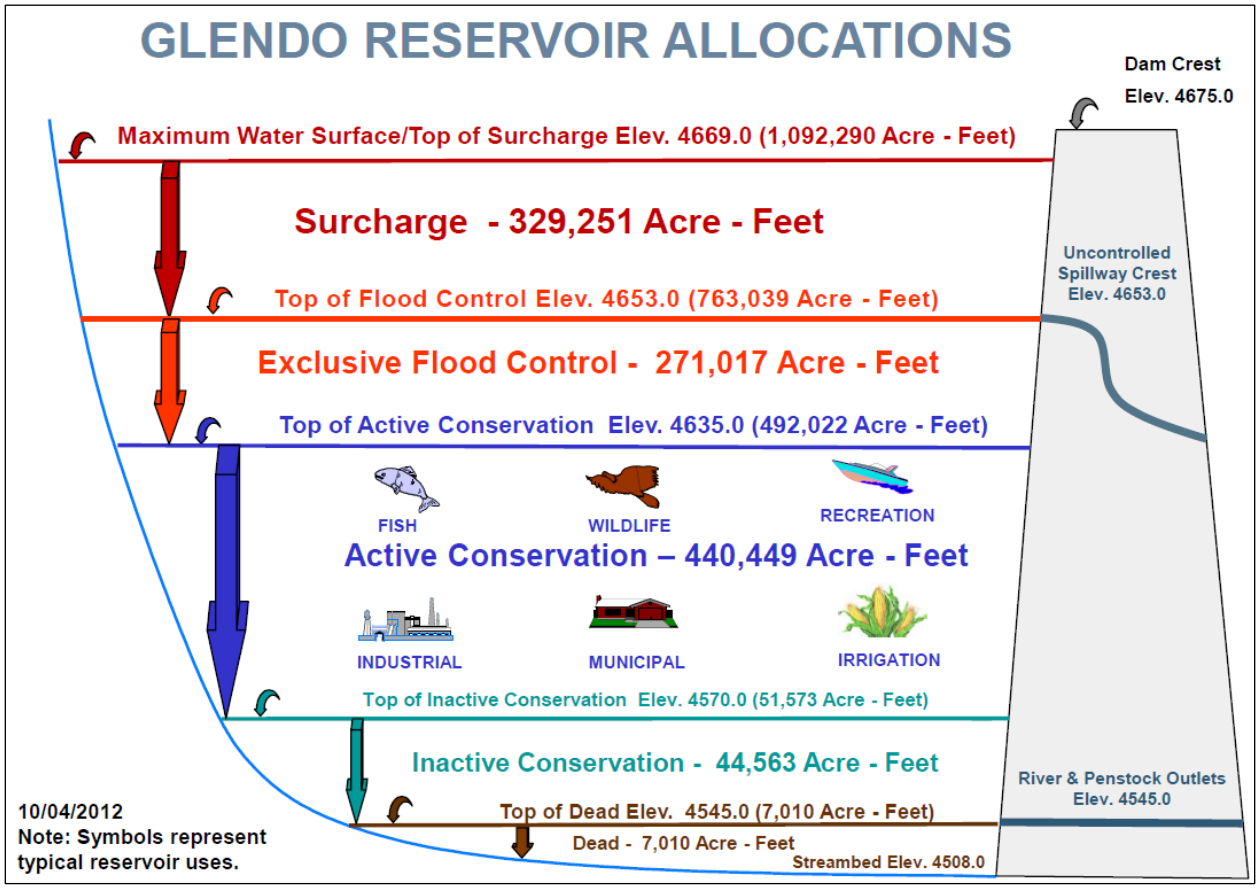

Figure D-6. —Glendo Reservoir allocation.

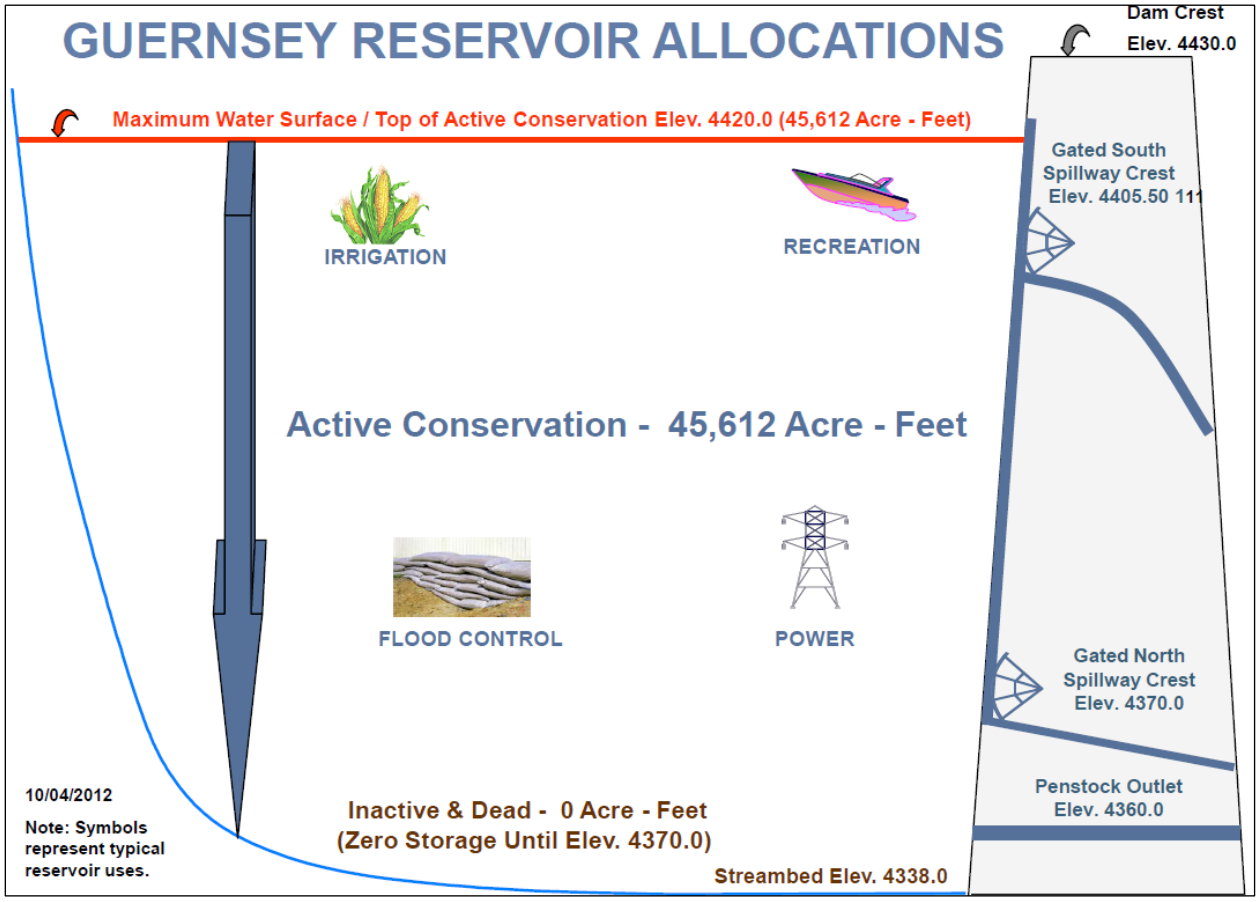

Figure D-7. —Guernsey Reservoir allocation.

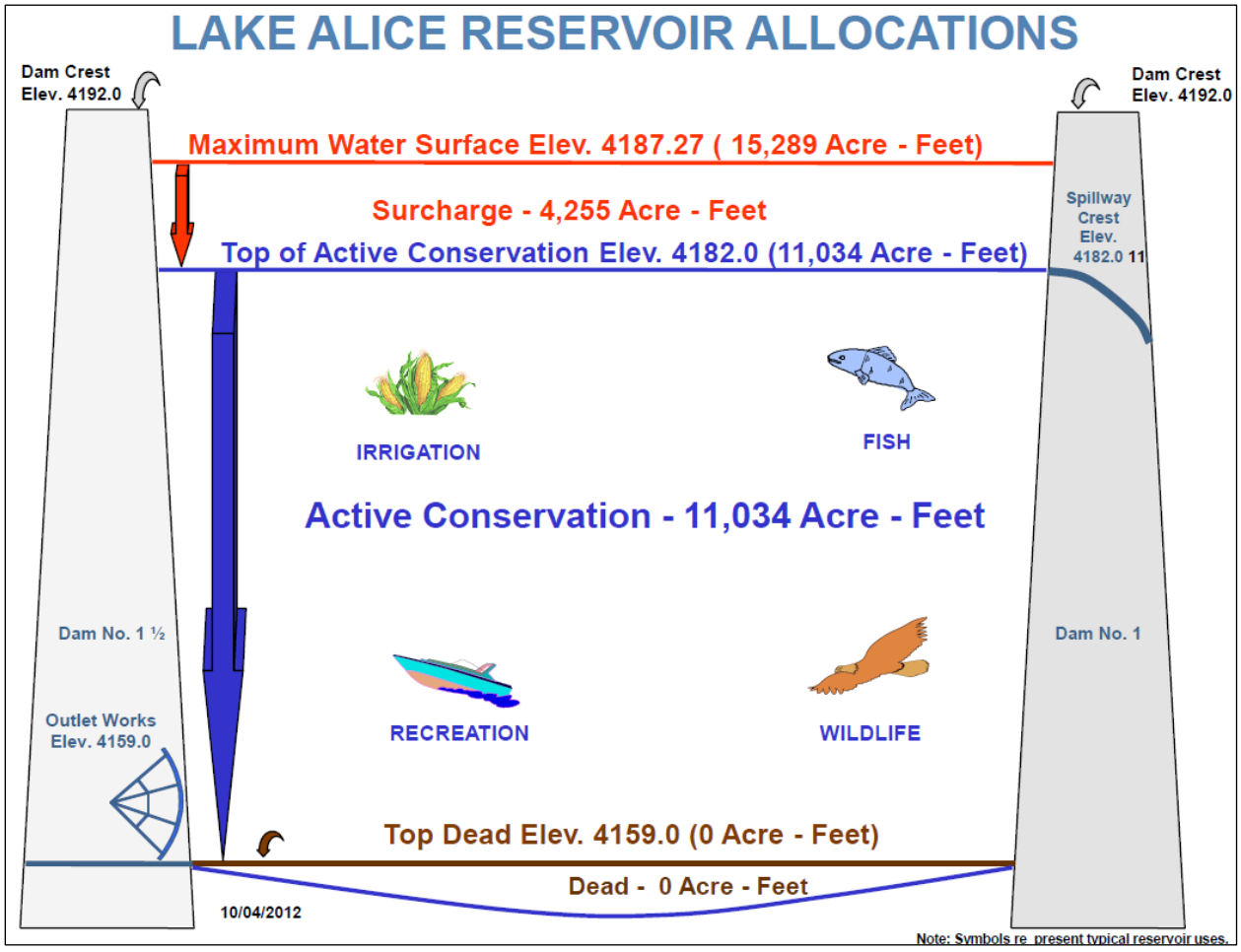

Figure D-8: —Lake Alice Reservoir allocation.

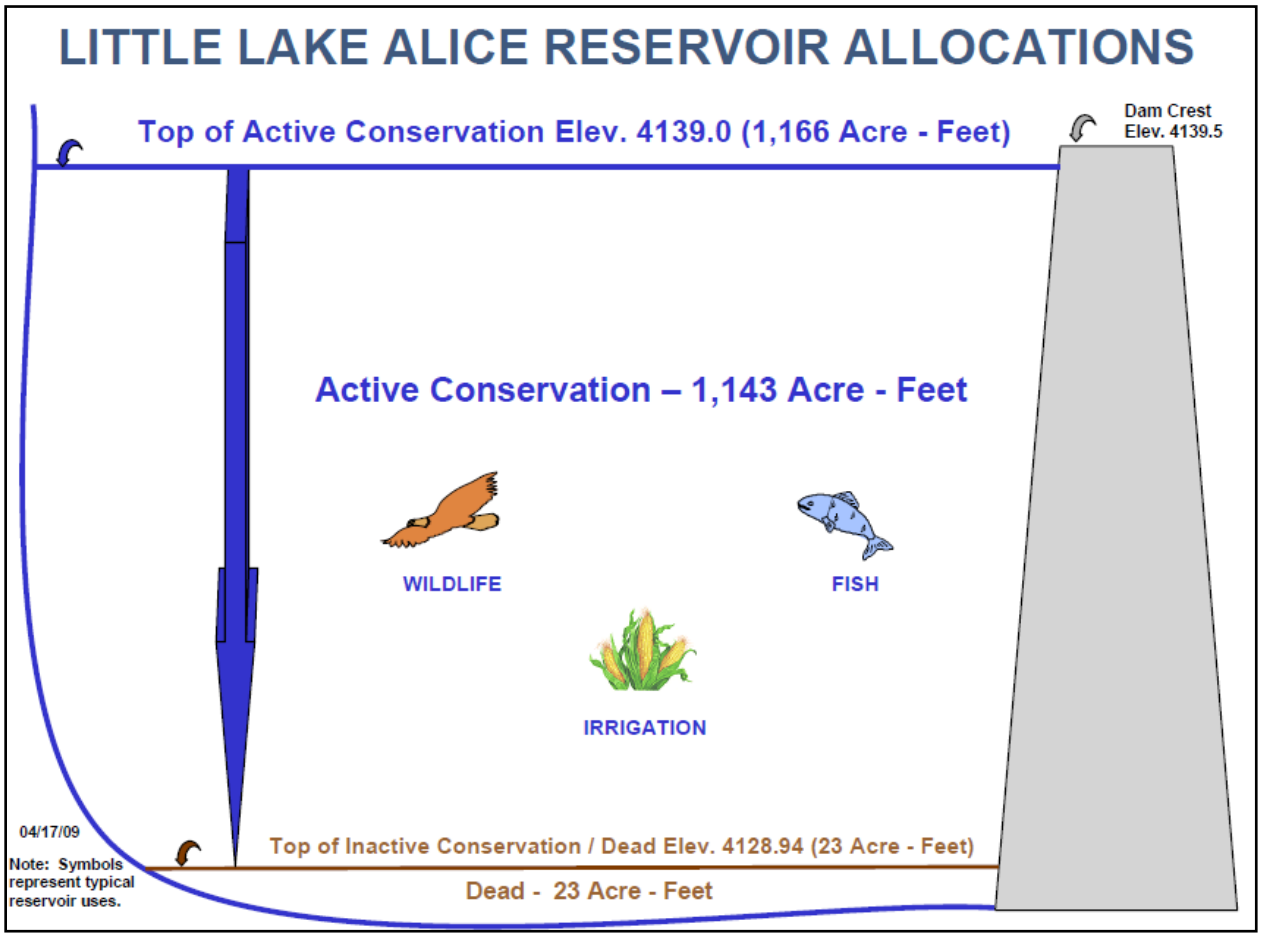

Figure D-9. —Little Lake Alice Reservoir allocation.

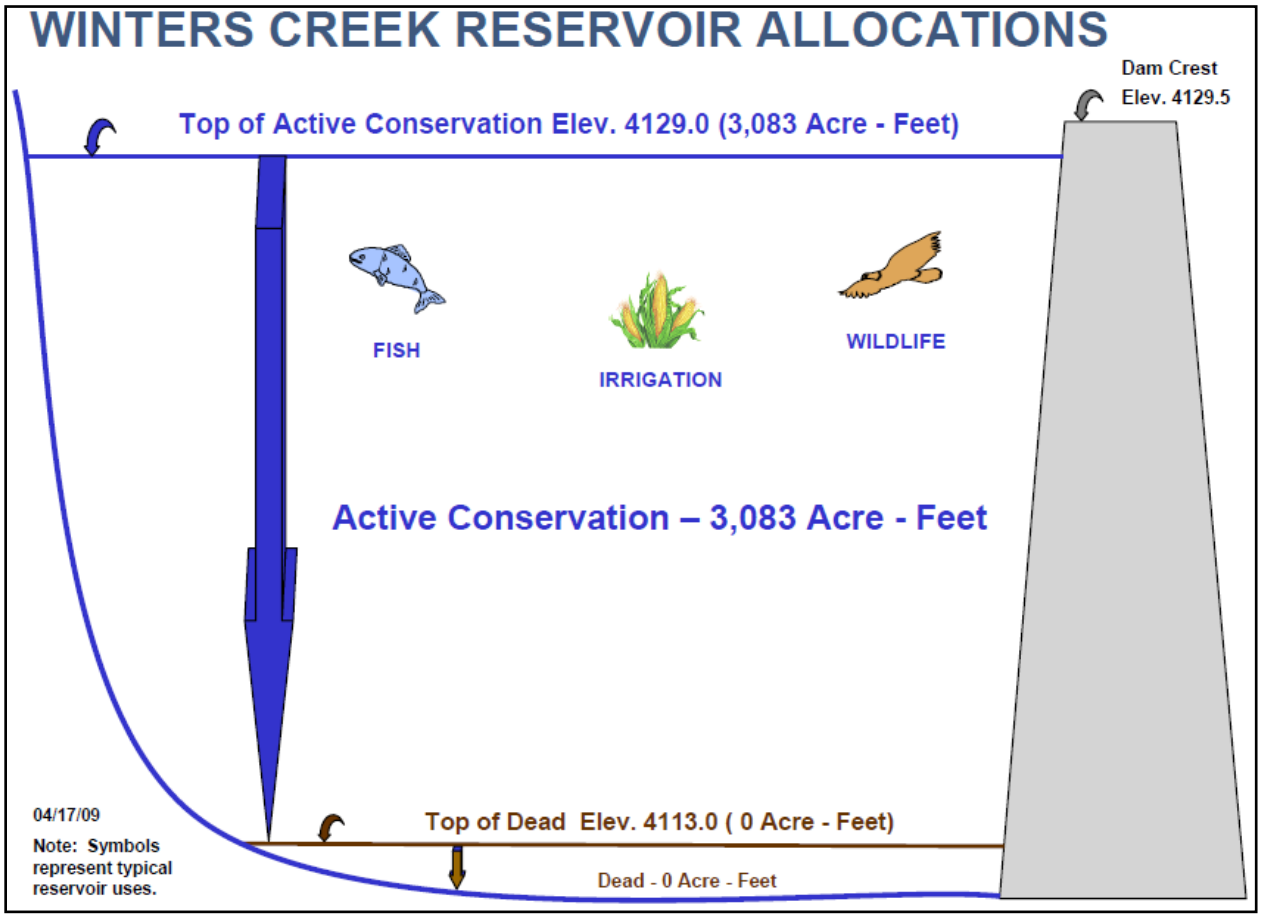

Figure D-10. —Winters Creek Reservoir allocation.

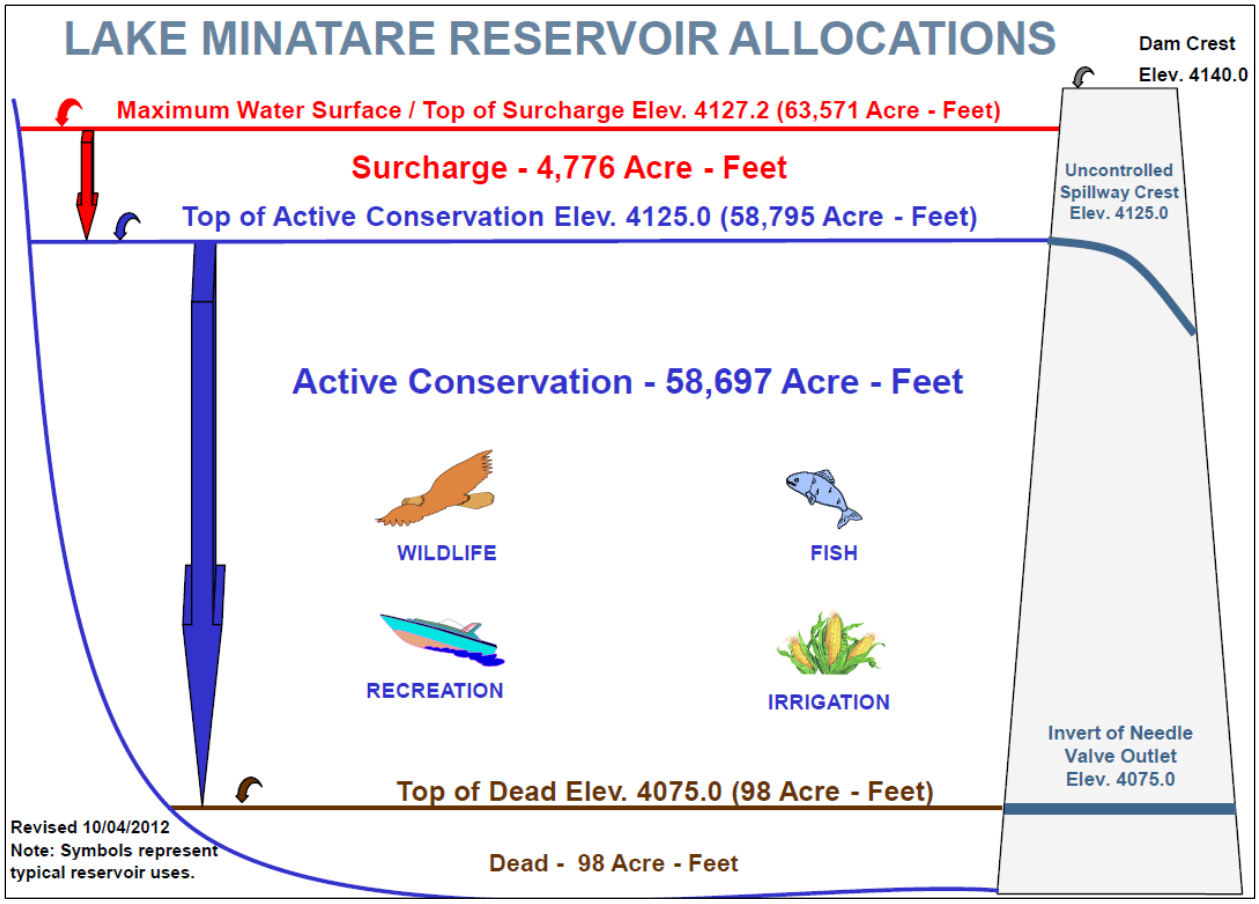

Figure D-11. —Lake Minatare Reservoir allocation.

Appendix E

Basin Map

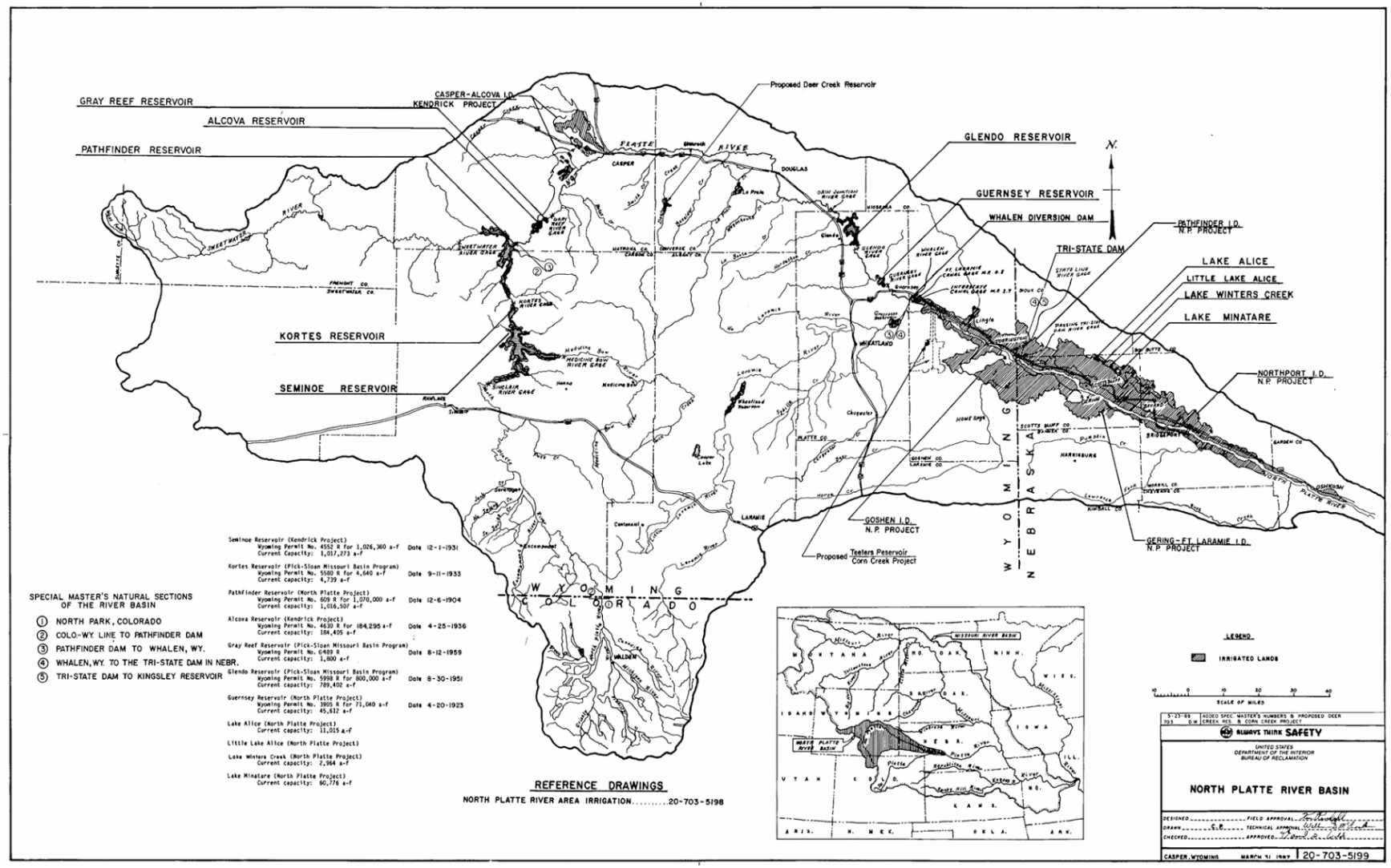

Figure E-1. —North Platte River Basin map.