



— BUREAU OF —
RECLAMATION

Fryingpan-Arkansas Project

Summary of Actual Operations

Water Year 2025

Annual Operating Plans



Eastern Colorado Area Office
Missouri Basin Region

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; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, 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.

Fryingpan-Arkansas Project

**Summary of Annual Operating Plans
Water Year 2025**

**Eastern Colorado Area Office
Missouri Basin Region**

This page intentionally left blank

Acronyms and Abbreviations

AF	acre-feet
AOP	annual operating plan
CBRFC	Colorado Basin River Forecast Center
CROS	Coordinated Reservoir Operations
ft ³ /s	cubic feet per second
kaf	thousand acre-feet
MWh	megawatt-hour(s)
O&M	operation and maintenance
Reclamation	Bureau of Reclamation
SECWCD	Southeastern Colorado Water Conservancy District
TLCC	Twin Lakes Canal Company
VFMP	Voluntary Flow Management Program
WAPA	Western Area Power Administration
WWSP	winter water storage program
WY	water year

Contents

	Page
Project Highlights	1
Annual Operating Plan Fryingpan-Arkansas Project Water Year 2025 Operation	4
General Overview	4
Project Features in Operation during WY2025	4
Hydrologic Conditions and Weather Events in WY2025	6
Report on Operations during WY2024	7
A. Ruedi Reservoir	7
B. West Slope Collection System and Project Diversions	10
C. Twin Lakes Reservoir and Canal Company/Fryingpan-Arkansas Project Exchange	11
D. Turquoise Lake	11
E. Mt. Elbert Conduit/Halfmoon Creek Diversion	11
F. Twin Lakes/Mt. Elbert Forebay and Mt. Elbert Pumped-Storage Power Plant	12
G. Pueblo Reservoir	13
H. Storage Contracts	13
I. Project Water Sales and Deliveries	13
J. Reservoir Storage Allocation Data	14
K. Reservoir Evaporation and Precipitation	14
L. Flood Control Benefits	14
 Appendix A	
Table A-1.—Ruedi Reservoir Operations WY2025 Fryingpan-Arkansas Project	A-1
Table A-2.—Ruedi Reservoir releases for contracts WY 2025	A-1
Table A-3.—Ruedi Reservoir releases for endangered fish April WY2025	A-2
Table A-4.—Fryingpan- Arkansas Project Transmountain Diversions WY2025	A-9
Table A-5.—Fryingpan-Arkansas Project Imports - Charles H. Boustead Tunnel Outlet	A-10
Table A-6.—Turquoise Lake Operations WY2025	A-12
Table A-7.—Twin Lakes/Mt. Elbert Forebay WY2025 Operations	A-13
Table A-8.—Mt. Elbert Pumped-Storage Power Plant WY2025 Operations	A-14
Table A-9.—Pueblo Reservoir WY2025 Operations	A-15
Table A-10.—Reservoir Storage Allocation Data	A-16
Table A-11.—Monthly Evaporation Factors	A-16
Table A-12.—Monthly Evaporation for Fryingpan-Arkansas Project	A-17
Table A-13.—Monthly precipitation data for Fryingpan-Arkansas Project	A-18
 Appendix B	
Figure B-1.—Combined Snow Water Equivalent of Fremont Pass, Independence Pass, Ivanhoe Lake and Nast SNOTEL sites.	B-1
Figure B-2.—Chapman SNOTEL Monthly Precipitation WY2025	B-2
Figure B-3.—Ruedi Reservoir Monthly Evaporation WY2025.	B-3
Figure B-4.—Ruedi Reservoir Actual Operations WY2025.	B-4
Figure B-5.—Fryingpan River near Thomasville Daily Discharge WY2025.	B-5

Figure B-6.—Boustead Tunnel Actual Operations WY2025.	B-6
Figure B-7.—Homestake Tunnel Actual Operations WY2025.	B-7
Figure B-8.—Busk-Ivanhoe Tunnel Actual Operations WY2025.	B-8
Figure B-9.—Turquoise Lake (Sugar Loaf Dam) Monthly Precipitation WY2025.....	B-9
Figure B-10.—Turquoise Lake (Sugar Loaf Dam) Monthly Evaporation WY2025.....	B-10
Figure B-11.—Turquoise Lake (Sugarloaf Dam) Actual Operations WY2025.	B-11
Figure B-12.—Mt. Elbert Conduit Inflow Actual Operations WY2025.	B-12
Figure B-13.—Twin Lakes Monthly Precipitation WY2025.	B-13
Figure B-14.—Twin Lakes Dam and Mt. Elbert Forebay Monthly Evaporation WY2025.	B-14
Figure B-15.—Twin Lakes/Mt. Elbert Forebay Actual Operations WY2025.....	B-15
Figure B-16.—Pueblo Dam Monthly Precipitation WY2025.	B-16
Figure B-17.—Pueblo Reservoir Winter Water WY2025.	B-17
Figure B-18.—Pueblo Dam Monthly Evaporation WY2025.	B-18
Figure B-19.—Pueblo Reservoir Actual Operations WY2025.	B-19
Figure B-20.—Releases of Fryingpan-Arkansas Project Water WY2025.	B-20

Appendix C

Twin Lakes Canal Company Exchange with Fryingpan-Arkansas Project Water WY2025.....	C-1
Table C-1.—Twin Lakes Canal Company Exchanges with Fryingpan-Arkansas Project Water	C-1

Appendix D

Carter Feeder Conduit near Norrie, CO.....	D-1
Table D-1.—WY2025 daily data for Carter Feeder Conduit near Norrie, CO.....	D-1
North Fryingpan River Feeder Conduit near Norrie, CO	D-2
Table D-2.—WY2024 daily data for North Fryingpan River Feeder Conduit near Norrie, CO.....	D-2
South Fork Fryingpan River Feeder Conduit near Norrie, CO.....	D-3
Table D-3.—WY2024 daily data for South Fork Fryingpan River Feeder Conduit near Norrie, CO.....	D-3
Mormon Creek Feeder Conduit near Norrie, CO	D-4
Table D-4.—WY2024 daily data for Mormon Creek Feeder Conduit near Norrie, CO	D-4
North Cunningham Feeder Conduit near Norrie, CO.....	D-5
Table D-5.—WY2024 daily data for North Cunningham Feeder Conduit near Norrie, CO.....	D-5
Middle Cunningham Feeder Conduit near Norrie, CO.....	D-6
Table D-6.—WY2024 daily data for Middle Cunningham Feeder Conduit near Norrie, CO.....	D-6
Ivanhoe Creek Feeder Conduit near Norrie, CO	D-7
Table D-7.—WY2024 daily data for Ivanhoe Creek Feeder Conduit near Norrie, CO	D-7
Lily Pad Creek Feeder Conduit near Norrie, CO.....	D-8
Table D-8.—WY2024 daily data for Lily Pad Creek Feeder Conduit near Norrie, CO	D-8
Granite Creek Feeder Conduit near Norrie, CO	D-9

Table D-9.—WY2024 daily data for Granite Creek Feeder Conduit near Norrie, CO	D-9
No Name Creek Feeder Conduit near Norrie, CO	D-10
Table D-10.—WY2024 daily data for No Name Creek Feeder Conduit near Norrie, CO.....	D-10
Midway Creek Feeder Conduit near Norrie, CO	D-11
Table D-11.—WY2024 daily data for Midway Creek Feeder Conduit near Norrie, CO	D-11
Hunter Creek Feeder Conduit near Norrie, CO	D-12
Table D-12.—WY2024 daily data for Hunter Creek Feeder Conduit near Norrie, CO	D-12
Sawyer Creek Feeder Conduit near Norrie, CO	D-13
Table D-13.—WY2024 daily data for Sawyer Creek Feeder Conduit near Norrie, CO	D-13
Chapman Gulch Feeder Conduit near Norrie, CO.....	D-14
Table D-14.—WY2024 daily data for Chapman Gulch Feeder Conduit near Norrie, CO.....	D-14
Fryingpan River Feeder Conduit near Norrie, CO.....	D-15
Table D-15.—WY2024 daily data for Fryingpan River Feeder Conduit near Norrie, CO.....	D-15
Appendix E	
Fryingpan-Arkansas Project Operating Principles.....	E-1

Project Highlights

Date	Event
August 16, 1962	Project authorized under Public Law 87-590.
August 1964	Construction began on Ruedi Dam.
November 2, 1965	Started excavating Charles H. Boustead Tunnel.
December 1965	Construction began on Sugar Loaf Dam.
April 15, 1968	Breached old Sugar Loaf Dam.
May 1968	Began storing water in Ruedi Reservoir.
June 15, 1969	Charles H. Boustead Tunnel "holed through".
July 1970	Construction began on Pueblo Dam - first contract.
May 16, 1972	Initial Project diversion from Chapman, South Fork, and Fryingpan diversion sites.
June 7, 1972	Initial diversion from Sawyer Creek.
July 1972	Construction began on Pueblo Dam - second contract.
July 1972	First sale of Project trans-mountain water.
January 9, 1974	Began storing water in Pueblo Reservoir.
May 6, 1974	Initial diversion from Lily Pad Creek.
May 4, 1976	Initial diversion from Ivanhoe Creek.
May 1977	First replacement water released from Ruedi Reservoir.
June 1977	First sale of water from Ruedi Reservoir.
November 22, 1977	Adopted the recommended bypass flow of 15 ft ³ /s or natural inflow, whichever is less on Lake Creek below Twin Lakes Dam.
June 1, 1979	Initial diversion from Middle Cunningham Creek.
June 4, 1979	Initial diversion from Mormon Creek.
June 14, 1979	Initial diversion from North Cunningham Creek.
May 8, 1980	Initial diversion from Hunter, Midway and No Name Creeks.
June 4, 1980	Initial diversion from North Fork and South Cunningham Creeks.
December 8, 1980	Federal Register notification of availability of water from Ruedi Reservoir.
April 28, 1981	Initial diversion from Carter Creek.
May 6, 1981	Initial diversion from Granite Creek.
June 1, 1981	Assume operation at Twin Lakes Dam.

**Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025**

June 23, 1981	Mt. Elbert Forebay filled.
September 29, 1981	Mt. Elbert Power Plant dedicated.
October 1, 1981	Mt. Elbert Unit #1 was made commercially available to Western Area Power Administration (WAPA) for their use.
May 5, 1982	Initial diversion from Halfmoon Creek.
July 29, 1982	Turquoise Lake filled for first time.
September 14, 1983	Initial diversion from south outlet works at Pueblo Dam for Pueblo West, CO.
August 9, 1984	Mt. Elbert Unit #2 was made commercially available to WAPA for their use.
May 24, 1985	Began storing water under Arkansas River Decree.
July 1, 1985	Initial diversion through Fountain Valley Conduit.
August 1985	Ruedi Hydroplant began operations.
November 27, 1985	Twin Lakes pipeline began operations.
May 7, 1986	Sugar Loaf Hydroplant began operations.
June 1986	Imports restricted due to high east slope storage.
November 10, 1987	Winter water storage decree was approved and signed.
November 17, 1989	Initial release from Twin Lakes Reservoir for recreational benefits on the Arkansas River.
August 14, 1990	Initial release from Ruedi Reservoir for endangered fish (conservation flows pursuant to the biological opinion) in the Colorado River's "15-mile reach" for the U.S. Fish & Wildlife Service from water leased by the Colorado Water Conservation Board.
September 28, 1990	Dedication of Pueblo Fish Hatchery and the completion of construction on the Fryingpan-Arkansas Project ceremony.
November 1990	Final winter storage decree was signed by court.
July 21, 1992	Dedication of Leadville Mine Drainage Tunnel Water Treatment Plant.
September 29, 1994	Transfer of Phase II of the Pueblo Fish Hatchery at Pueblo Reservoir to Colorado Division of Wildlife.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025

May 15, 1995	Final transfer of recreational facilities at Pueblo to the Department of Parks and Outdoor Recreation.
July 7, 1995	Began storing water under Arkansas River Decree.
July 18, 1995	All Project space was filled with Project water. Imports curtailed.
July 1997	Reservoir level at Pueblo Reservoir restricted after a routine risk assessment of Pueblo Dam was completed and raised concern about the foundation below the spillway section of the dam.
May 1999	Pueblo Reservoir restriction lifted.
July 2000	Risk Analysis Study for Pueblo Dam completed.
July 11, 2000	Long-term contract between U.S. Government and the Pueblo Board of Water Works executed.
September 11, 2001	As a result of the terrorist attacks on September 11, 2001, all Fryingpan- Arkansas Project facilities were closed to the public. The facilities remained closed until security measures to safeguard the federal investment were implemented. Reclamation has maintained a heightened level of security at Fry-Ark facilities since that time.
July 23, 2002	Initial release of water through Pueblo Board of Water Works South Outlet Works joint-use manifold.
September 12, 2007	Long-Term Contract between the U.S. Government and the city of Aurora executed.
May 2010	The upgrade to the control and monitoring system for the Fryingpan-Arkansas collection system was completed.
September 2012	Fiberoptic control of west slope systems from the east slope.
April 28, 2016	Southern Delivery System began water deliveries.
August 10, 2016	Lease of Power Privilege signed with SECWCD for the construction, operation, maintenance and replacement associated with hydropower at Pueblo Dam.
October 1, 2016	If and When Master Contract in effect.
May 14, 2019	Southeastern Colorado Conservancy District's James W. Broderick Hydropower Plant begins production of electricity at Pueblo Dam.

Annual Operating Plan Fryingpan-Arkansas Project Water Year 2025 Operation

General Overview

This is the 58th annual operating plan (AOP) for the Fryingpan-Arkansas Project. The project, completed in 1990, imports spring snowmelt runoff from Colorado's west slope to the semi-arid Arkansas River basin on Colorado's east slope. The project consists of federally owned dams, reservoirs, stream diversion structures, conduits, tunnels, pumping plants, a pumped-storage power plant, electric transmission lines, substations, and recreation facilities. These features are located in the Fryingpan River and Hunter Creek watersheds of the upper Colorado River Basin, and in the Arkansas River Basin in central and southeastern Colorado. The project provides water for irrigation, municipal and industrial use, hydroelectric power generation, recreation, and wildlife habitat. The project also provides for flood control.

The project was authorized under Public Law 87-590 on August 16, 1962. This law provides that the project will be operated under the operating principles adopted by the state of Colorado on April 30, 1959, as amended on December 30, 1959, and on December 9, 1960. These operating principles were published as House Document 130 (87th Congress, First Session), and are included in appendix E.

This annual operating plan is a summary of the actual project operation in water year 2025 (WY2025), running from October 1, 2024 through September 30, 2025. All tables can be found in appendix A and all figures can be found in appendix B.

Project Features in Operation during WY2025

Ruedi Dam and Reservoir are located on the Fryingpan River, a tributary of the Roaring Fork River, on Colorado's west slope about 13 miles east of Basalt, CO. Ruedi Reservoir has a total capacity of 102,373 acre-feet (AF) at a water surface elevation of 7,766.0 feet. The reservoir is operated on an annual cycle. Steady winter releases draft the reservoir such that it can be filled with the spring runoff while releases to the Fryingpan River are maintained below the safe channel capacity. The reservoir provides replacement water for out-of-priority depletions to the Colorado River by the project as well as water for west slope irrigation, municipal, and industrial uses on a contractual basis. The reservoir is also operated to provide for recreation and wildlife habitat.

The west slope collection system, located upstream of Ruedi Reservoir in the upper Fryingpan River and Hunter Creek watersheds, is a series of 16 stream diversion structures and 8 tunnels. The system collects spring snowmelt runoff for diversion, by gravity, to the inlet of the

Charles H. Boustead Tunnel. The Boustead Tunnel conveys water collected by the west slope collection system under the continental divide and into Turquoise Lake on the east slope. The tunnel is five miles long and has a water conveyance capacity of 945 cubic feet per second (ft³/s).

Sugarloaf Dam and Turquoise Lake are located on Lake Fork Creek, a tributary of the Arkansas River, about five miles west of Leadville, CO. The reservoir has a total capacity of 129,398 AF at a water surface elevation of 9,869.4 feet. The reservoir is operated to provide regulation of both project and non-project water imported from the west slope. Turquoise Lake is operated on an annual cycle. The lake is drafted through the Mt. Elbert Conduit during the winter to provide adequate space for the spring imports of west slope water. Most of the native inflow from Lake Fork Creek is impounded in the lake and returned to the Arkansas River via the Mt. Elbert Conduit, the Mt. Elbert Power Plant, and Twin Lakes. The reservoir is also operated to provide for recreation and wildlife habitat.

The Mt. Elbert Conduit conveys project, non-project, and native Lake Fork Creek water from Turquoise Lake to Twin Lakes. The conduit is 10.7 miles long and has a water conveyance capacity of 370 ft³/s. Native water from Halfmoon Creek is also added to the conduit and returned to the Arkansas River from Twin Lakes Dam. The Sugarloaf Powerplant, a privately-operated electrical generation station, runs when water is being conveyed from Sugarloaf Dam to the Mt. Elbert Conduit. All conduit flow reaching the Mt. Elbert Forebay is used to generate electricity at the Mt. Elbert Power Plant as it is delivered to Twin Lakes.

The Mt. Elbert Powerplant is a pumped-storage facility located on the shore of Twin Lakes. It has two 100-megawatt turbine generators, that can be reversed and used as 340,000 horsepower pumps. In addition to being used to generate energy with the Mt. Elbert Conduit flow, the plant is used to follow daily peak power loads. This load following is accomplished by pumping water to the Mt. Elbert Forebay, an 11,143 AF regulating pool at the terminus of the Mt. Elbert Conduit, from Twin Lakes during off-peak load hours using surplus or low-cost energy. That water is then returned to Twin Lakes through the turbines during peak load hours, along with the Mt. Elbert Conduit flow. The energy generated at the plant is transmitted and marketed by the Western Area Power Administration (WAPA), with the revenues applied to the repayment of the project.

Twin Lakes Dam and Twin Lakes are located on Lake Creek, a tributary of the Arkansas River, about 13 miles south of Leadville, CO. Twin Lakes has a surveyed capacity of 140,855 AF at a maximum water surface elevation of 9,200 feet. Water surface elevations are measured with respect to mean sea level. The morning glory spillway is slightly tilted which reduces the active storage space by 498 AF. During construction, the dead pool (the elevation below which water cannot physically be released) was determined to be 9,157.5 feet (54,955 AF).

The reservoir is operated to regulate both project and non-project water imported from the west slope. The project water stored in the reservoir is released to Lake Creek for storage in Pueblo Reservoir during the winter months in anticipation of spring imports from the west slope. Native inflows into Turquoise Lake, native flows diverted from Halfmoon Creek, and native inflows

into Twin Lakes, are all released to Lake Creek from the Twin Lakes Dam. The cities of Colorado Springs and Aurora take direct delivery of water from the reservoir through their Otero Pipeline. The operation of Twin Lakes also provides for recreation and wildlife habitat.

Pueblo Dam and Reservoir are located on the Arkansas River 6 miles west of the city of Pueblo, CO. The reservoir is the terminal storage facility for the Fryingpan-Arkansas Project and has a total storage capacity of 338,374 AF at a water surface elevation of 4,898.7 feet. The upper 26,990 AF of storage space are reserved exclusively for flood control, while an additional 66,011 AF of space are reserved for flood control seasonally from April 15 through November 1. Pueblo Reservoir is also operated to provide for recreation, wildlife habitat, and flood control.

Non-project water may be stored in the reservoir under contract with Reclamation. Native inflow can be stored when the project storage right is in priority or under the winter water storage program (WWSP). Under the WWSP, irrigators are permitted to store native Arkansas River water in Pueblo Reservoir during the winter months for an additional supply of irrigation water, on the condition that the water is used before May 1 of the next water year.

Most water deliveries are made from the reservoir. The Fountain Valley Authority, the Pueblo West Metropolitan District, and the Pueblo Board of Water Works can take direct delivery of municipal water through the south outlet works and joint-use manifold. The Southern Delivery System (SDS) in the north outlet works delivers water to the Fountain Valley Authority and Pueblo West. A direct irrigation delivery is made to the Bessemer Ditch. Releases from the fish hatchery outlet at Pueblo Dam support the Pueblo Fish Hatchery. Other project and contract deliveries are made as releases to the Arkansas River for diversion downstream.

Southeastern Colorado Water Conservancy District (SECWCD) signed a Lease of Power Privilege contract with the Bureau to construct, operate, maintain and replace the James W. Broderick Hydroelectric Power Plant below Pueblo Dam. The design uses an existing hydropower bifurcation at the North Outlet Works Southern Delivery System connection.

Hydrologic Conditions and Weather Events in WY2025

Annual precipitation in the Fryingpan River Basin was below average for nearly every month in WY2025. Precipitation began the year below average in October, increased in November, and then remained below average until late summer. Cumulative precipitation in October was 93 percent of average, and November reached 145 percent of average. December and January recorded 79 and 72 percent of average, respectively. February and March were close to average at 97 and 101 percent. April, May, June, and July were all below average at 52, 81, 73, and 66 percent of average, respectively. In August, monsoon precipitation increased, with cumulative

precipitation reaching 126 percent of average. Precipitation decreased slightly in September but remained above average at 118 percent. Overall, total annual precipitation in the Fryingpan River Basin finished at 91 percent of average for the year.

Snowpack accumulation in the watershed above Ruedi Reservoir followed a similar pattern to cumulative precipitation, remaining below historical levels for most of the season. Snow accumulation began above median in October and November but stayed below median from December through March. The basin saw only modest snowpack increases, with December at 79 percent of median and January at 83 percent. February brought a mid-month gain in snowpack, ending the month at 91 percent of median. March snow accumulation was below median at 74 percent. April showed the largest snowpack accumulation of the year at 223 percent of median, primarily because snow began melting earlier than the median melt rate for that month. In May, snow accumulation was again below median at 71 percent. In June, snowpack continued to melt and was 97 percent of median for the month.

These median snowpack values were measured at the Fryingpan River Basin group of SNOTEL sites: Fremont Pass, Independence Pass, Brumley, and Kiln. The June snowmelt rate was close to the median rate, with an average loss of about 0.17 inches of snow water equivalent per day. On average, all SNOTEL sites in the Fryingpan River Basin group reached melt-out on June 19, one day earlier than the median melt-out date.

Average monthly temperatures measured at the Fryingpan River Basin SNOTEL sites were above average for more than half of the months in WY2025. The basin began the year warmer than average in October, at 3.4 degrees above average. November cooled to 3.1 degrees below average, while December warmed again to 3.4 degrees above average. January was 6.8 degrees below average. February and March were 4.1 and 0.3 degrees above average, respectively. April and May were about 0.5 degrees below average. June warmed to 1.9 degrees above average, and July cooled slightly to 0.6 degrees below average. The year ended with August at 2 degrees above average and September at 0.8 degrees below average. By season, temperature deviations from average were as follows: autumn +0.1°F, winter +0.4°F, spring -0.2°F, and summer +0.6°F. Overall, the basin averaged 0.3°F above normal for the year.

Report on Operations during WY2025

A. Ruedi Reservoir

Ruedi Reservoir began WY2025 with a storage content of 82,298 AF, representing 96 percent of average. During the winter months, the reservoir was drawn down to its lowest storage content of the year—67,709 AF on April 11. In October, releases from Ruedi Reservoir were reduced to the winter flow target of 65 ft³/s and held at that rate until mid-January, at which point the release was increased to 80 ft³/s and maintained through the spring. All winter releases were made through the City of Aspen's hydroelectric powerplant.

**Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025**

In January, the first forecast of undepleted inflow to Ruedi Reservoir was computed by the Colorado Basin River Forecast Center (CBRFC). This forecast indicated that runoff from melting snowpack would be 98 percent of average, resulting in an April–July runoff volume of 132 thousand acre-feet (kaf). Reservoir storage was above average at the beginning of the month, and modeling based on the January undepleted inflow forecast suggested increasing releases to 80 ft³/s to fill the reservoir by early July while keeping all subsequent releases through the powerplant.

In February, Reclamation issued its first statistical forecast of undepleted inflow, which decreased from the CBRFC's previous forecast to 94 percent of average. This projected an undepleted inflow volume of 127 kaf for the April–July period. Reservoir storage remained above average, and releases were maintained at 80 ft³/s. Modeling based on this forecast indicated that the reservoir would fill by early July.

Reclamation's March 1 statistical forecast of undepleted inflow decreased further to 87 percent of average, with a predicted April–July undepleted inflow volume of 118 kaf. Reservoir releases were increased incrementally to 110 ft³/s on March 11, 137 ft³/s on March 18, and 162 ft³/s on March 25. Based on these higher releases and the revised forecast, reservoir modeling indicated that Ruedi Reservoir would still fill under the most probable conditions and that inflows in July, after filling, would remain below the downstream safe channel capacity of 850 ft³/s.

In April, the undepleted inflow forecast for the April–July period increased to 123 kaf (91 percent of average). This forecast projected that Ruedi Reservoir would fill under all three modeled hydrologic scenarios: most probable, minimum reasonable, and maximum reasonable. Releases were reduced to 111 ft³/s on April 23, and reservoir modeling showed no risk of exceeding the safe channel capacity once the reservoir filled in early July.

On April 17, Reclamation held its annual meeting as required under Stipulation 1.7.b of Case Nos. 02CW324 and 02CW365. The meeting included representatives from Reclamation, Southeastern Colorado Water Conservancy District, Division 5, and the Colorado River District. No consensus was reached that Ruedi Reservoir would fill, which prevented Reclamation from diverting the additional 45 ft³/s of Fryingpan River Basin water through the Boustead Tunnel under Stipulation 5 of the same case numbers.

The meeting was held on May 9, but consensus was again not reached because the forecast had decreased. On May 12, the Colorado River District placed its senior fill call, officially limiting Boustead Tunnel diversions and prohibiting the additional 45 ft³/s diversion. The group met again on May 23, but conditions were unchanged, and the senior call remained in effect.

Representatives present were:

- Bureau of Reclamation: Michael Holmberg, Terry Dawson, Tim Miller
- Southeastern Colorado Water Conservancy District: Leann Noga, Gordon Dillon
- Colorado Division of Water Resources: James Heath, Bill Blakeslee
- Colorado River District: Brendon Langenhuizen, Don Meyer

Since consensus was not reached, the Boustead Tunnel was allowed to divert up to the maximum rate of 900 ft³/s from the Fryingpan Basin, along with half the daily diversions from the Hunter Diversions.

Inflow to Ruedi increased in May as reservoir releases were maintained at the minimum required flow, and the reservoir began to fill. The most probable undepleted inflow forecast for May–July was 92 kaf (73 percent of average). This forecast indicated that the reservoir would fill under the maximum reasonable and most probable scenarios, but not under the minimum reasonable scenario. Based on this projection, it was determined that there would not be sufficient water to support Coordinated Reservoir Operations (CROS) releases for the 15-Mile Reach of the Colorado River.

The June forecast of remaining inflow was below average, with a June–July volume of 54 kaf (62 percent of average). This forecast indicated that Ruedi Reservoir would not fill under any of the three modeled scenarios. Releases were maintained at the minimum flow requirement for the entire month.

Ruedi Reservoir remained in priority and stored inflow from the beginning of the water year through July 13. On July 14, the Colorado Division of Water Resources, Division 5, placed the Cameo call at the Grand Valley Canal. This required Ruedi Reservoir to release inflow, make scheduled contract releases, and provide Boustead Tunnel replacement releases to the Colorado River. The Cameo call remained in effect until October 11. During this period, Ruedi Reservoir released 545 AF of water for out-of-priority Boustead Tunnel diversions and 4,166.97 AF for regular scheduled contracts.

Ruedi Reservoir did not participate in CROS operations for WY2025. Beginning in July, contracted water was released to support endangered fish recovery efforts in the 15-Mile Reach of the Colorado River. A total of 17,762.5 AF of water was released between July 3 and October 16 for this purpose. This total included:

- 2,000 AF leased from Ute Water
- 350 AF leased from Garfield County
- 300 AF leased from the Colorado River District
- 200 AF leased from the City of Palisade

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025

- 4,500 AF leased from QB Energy
- 10,412.5 AF from Ruedi's firm and mitigation fish pools (5,000 AF from the firm endangered fish pool and 5,412.5 AF from the mitigation fish pool)

The 5,000 AF from the "4-out-of-5" fish pool were not available in WY2025 because Ruedi Reservoir did not physically fill.

Depleted inflow (inflow remaining after upstream diversions) to Ruedi Reservoir was below average during the first four months of WY2025, above average from February through April, and below average again for the remainder of the year. Overall, depleted inflow was 84 percent of average for the year. The April–July runoff volume totaled 50,613 AF (60 percent of average)—the fifth smallest runoff volume in the period of record, which began in 1975.

Ruedi Reservoir reached its maximum storage content of 91,188.18 acre-feet on July 3, representing 89 percent of total capacity. The reservoir ended the water year at a water surface elevation of 7,728.12 feet, corresponding to 68,927.51 AF of storage, or 81 percent of average for September 30.

B. West Slope Collection System and Project Diversions

Runoff peaked in late May. A total of 41,550 AF of water diverted through the Boustead Tunnel and 38,474 AF of water was stored during the WY2025. The imports were 70 percent of average for the period from WY1972 to WY2025 and 84 percent of the May 2025 forecast.

The import of project water through the Boustead Tunnel began on April 24. The maximum mean daily import through Boustead Tunnel was 913 ft³/s on June 3. The diversion system was shut down in the first 2 weeks of July to aid repairs and maintenance at the Cunningham Tunnel. Boustead Tunnel seepage was recorded whenever the Fry-Ark Project water rights were in priority. There was 2,893 AF of Busk-Ivanhoe water conveyed through the Boustead Tunnel. The daily discharge record for the diversion structures is included as appendix D. An aggregated discharge record is shown on table A-4. The 54 years of accumulated imports total 2,836,781 AF, for an unimpeded average of 54,991 AF per year, shown on table A-5. A plot of the Boustead Tunnel imports during WY2025 is shown on table B-6.

Since Ruedi Reservoir was not forecast to fill this year imports through the Boustead Tunnel were allowed to a maximum of 900 ft³/s.

C. Twin Lakes Reservoir and Canal Company/Fryingpan-Arkansas Project Exchange

The Bureau of Reclamation is obligated to maintain minimum stream flows in the Roaring Fork River by authorizing legislation of the project. This is accomplished through an exchange of water with the Twin Lakes Reservoir and Canal Company (TLCC). The total amount of the TLCC exchange was 3,000 AF. The operating criteria and the monthly summary of the exchange are shown in appendix C.

D. Turquoise Lake

On September 30, 2024, there was 117,255 AF of water (elevation 9862.51 feet) stored in Turquoise Lake, 112 percent of average. The high point for storage was 117,169 AF of water (elevation 9862.46 feet) on October 1st. Releases made down Lake Fork Creek and to Twin Lakes drafted Turquoise Lake to 75,376 AF (9836.91 feet), the lowest storage of the water year, on March 9th. On September 30, 2025, there was 88,233 AF, an elevation 9845.15 feet, 84 percent of average.

Tables B-8 and B-9 show the precipitation and pan evaporation at Turquoise Lake. Table A-6 and table B-10 depict the monthly operation of Turquoise Lake during WY2025.

There was 22,954 AF imported through Homestake Tunnel to the account in Turquoise Reservoir.

Busk-Ivanhoe imported 1,890 AF through the Carlton Tunnel; AF, 1,801 AF stored by Aurora and 22 AF stored by Pueblo Water with the remainder considered developed water. Pueblo Water imported 2,893 AF from Ivanhoe Reservoir through the Boustead Tunnel.

Project water imports through the Boustead Tunnel totaled 38,474 AF.

Table B-6, table B-7, and table B-8 show the monthly imports through the Boustead, Homestake, and Busk- Ivanhoe Tunnels, respectively.

E. Mt. Elbert Conduit/Halfmoon Creek Diversion

Between October 1 and September 30 there was 108,872 AF of water released from Turquoise Lake through the Sugarloaf Powerplant and into Mt. Elbert Conduit. No water was diverted from Halfmoon Creek. An additional 3,909 AF of water were released into the conduit from Turquoise Lake for use by the Leadville Federal Fish Hatchery. The water was diverted from the conduit and delivered to the hatchery. It was then returned to the Arkansas River and stored in Pueblo Reservoir. The conduit operations are shown on table B-11.

F. Twin Lakes/Mt. Elbert Forebay and Mt. Elbert Pumped-Storage Power Plant

On September 30, 2024, Twin Lakes had 118,386 AF of water stored (elevation 9191.28 feet) and Mt. Elbert Forebay had 9,122 AF in storage (elevation 9638.15 feet). The Twin Lakes/Mt. Elbert Forebay combined water storage reached a low point of 103,932 AF on August 9th and was at its high point of 139,453 on June 25. The storage in Twin Lakes was 117,351 AF and in Mt. Elbert Forebay was 8,520 AF of water (Twin Lakes elevation 9,190.84 feet and Mt. Elbert Forebay elevation 9,635.82 feet) on September 30, 2025, 102 percent of average.

Twin Lakes releases to Lake Creek were made throughout the winter to pass the flow of the Mt. Elbert Conduit, and to transfer project water stored in Twin Lakes to Pueblo Reservoir.

The native inflow of 3,657 AF was stored in the TLCC storage space from November 15 through March 15 as winter water storage. A total of 29,379 AF of project water was released to Lake Creek during this time.

Table B-13 and table B-14 show the precipitation and pan evaporation at Twin Lakes. Table A-7 and table B-15 depict the monthly operation of Twin Lakes during WY2025.

The Bureau of Reclamation is not a party to the Voluntary Flow Management Program (VFMP) agreement between Southeastern Colorado Water Conservancy District (SECWCD); Colorado Parks and Wildlife (CPW); Chafee County; the Arkansas River Outfitters Association; and Trout Unlimited, where project water is made available when possible, to support the recreational and fishery flows. Water may be called for year-round to support fishery flows at 250 ft³/s. Recreational flows may be provided from July 1 to August 15 if the flow at Wellsville is below 700 ft³/s. The flows may be ramped down to prevent streambank erosion after August 15.

A total of 10,000 AF of Fry-Ark Project water was made available at the beginning of the season to the VFMP to augment flows at the gage Arkansas River at Wellsville. The runoff in WY2025 began earlier than usual and finished much earlier than usual. Flows going into the rafting season were much below average. It was apparent that the usual 10 KAF would not be enough to sustain rafting flows. CPW reduced its target flow from 700 ft³/s at Wellsville to 600 ft³/s. At the same time, SECWCD made an additional 7,000 AF of water available from project storage in Twin Lakes. A total of 16,366 AF was released to support recreational flows between June 1 and August 15.

A total of 96,499 megawatt hours of energy was generated at the power plant, with 263,541 AF of water: 109,557 AF came through the Mt. Elbert Conduit, and 166,686 AF were first pumped to the Mt. Elbert Forebay from Twin Lakes during off-peak electric demand hours. Table A-8 depicts the monthly power plant operation for WY2025.

G. Pueblo Reservoir

The water storage content of Pueblo Reservoir was 196,157 AF (elevation 4868.33 feet) on September 30, 2024, which is 119 percent of average. The reservoir reached a high point in storage of 258,993 AF (elevation 4883.36 feet) on March 12 and a low point on September 30, 2025, of 188,735 AF (elevation 4866.33 feet), which is 114 percent of average.

A total of 44,139 AF of native inflow was stored in the reservoir under the Pueblo Reservoir winter water storage program between November 15, 2024, and March 14, 2025, this program allows agricultural entities to store native flows during the winter to be used during irrigation season. On March 14, it was distributed to agricultural entities.

Table A-9 and table B-19 depict Pueblo Reservoir monthly operations during WY2025. The 2024–2025 winter water storage is shown on table B-16, and the winter water releases are shown on Exhibit 17. The precipitation and evaporation at the reservoir are shown on tables B-15 and B-18. Project water releases are shown on table B-20.

H. Storage Contracts

There were four long-term storage contracts for a total of 57,416 AF of non-project storage in Turquoise Lake, one for 54,452 AF in Twin Lakes and eight for 63,024 AF in Pueblo Reservoir.

There were five short-term if-and-when contracts totaling 6,490 AF for 1-year contracts in Pueblo Reservoir. Sixteen contracts totaling 7,765 AF under the Master Contract were used for “if-and-when” storage. Under “if and when” contracts, non-project water may be stored in project storage space if that storage space is not required for project water.

I. Project Water Sales and Deliveries

There was 40,062 AF of Fryingpan-Arkansas Project water made available to the SECWCD during WY2025 for allocation based on an expected import of 42,300 AF. Municipal and industrial accounts were allocated a total of 13,437 AF and agricultural accounts received 23,626 AF. Entities called for 29,942 AF of project and 4,737 AF of project carryover water during the year.

Evaporation reduced the project carryover water in storage by 8,758 AF. By the end of the water year, there was 16,154 AF of WY2025 allocated water and 119,069 AF of carryover water remaining in storage. The monthly release of project water from Pueblo Reservoir is shown on Exhibit 19.

J. Reservoir Storage Allocation Data

Table A-10 presents the reservoir storage allocations for the five project reservoirs.

K. Reservoir Evaporation and Precipitation

Table A-12 and table A-13 present the monthly average evaporation and precipitation at the four weather stations near project facilities. When an evaporation pan is not in service and a reservoir is not completely ice-covered, the daily water surface evaporation is computed using seasonal evaporation factors. Those factors are listed in table A-11. The assumption is that there is no evaporation from a reservoir water surface when ice completely covers the reservoir.

L. Flood Control Benefits

The gauge at ARKAVOCO did not exceed 6,000 ft³/s.

Table A-14 shows the historic flood control benefits provided by Pueblo and Ruedi Dams.

Appendix A

Tables

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-1.—Ruedi Reservoir operations WY2025 Fryingpan-Arkansas Project

Month	Inflow	Evaporation	Outflow	End of Month Content	Water Surface Elevation (feet)
Oct. 24	3.60	0.10	7.60	78.50	7,739.96
Nov. 24	3.00	0.00	3.50	77.90	7,739.30
Dec. 24	2.70	0.00	3.70	76.90	7,738.09
Jan. 25	2.40	0.00	4.30	75.00	7,735.75
Feb 25	2.20	0.00	4.40	72.70	7,732.98
Mar. 25	3.70	0.00	7.00	69.40	7,728.76
Apr. 25	8.50	0.00	8.60	69.30	7,728.56
May 25	15.30	0.20	7.00	77.40	7,738.69
Jun. 25	19.60	0.60	5.70	90.80	7,753.89
Jul. 25	7.50	0.50	12.40	85.20	7,747.79
Aug. 25	4.00	0.40	11.60	77.30	7,738.54
Sept. 25	3.40	0.20	11.60	68.90	7,728.12
Total* (acre-feet)	75,768	1,948	87,468		

(Units = 1,000 AF)

* Rounding may introduce discrepancies between monthly and yearly totals.

Table A-2.—Ruedi Reservoir releases for contracts WY2025

Month	Round 1: Non-Fish	Round 1: Fish	Round 2: Non-fish	Round 2: Fish
October				
November				
December				
January				
February				
March				
April				
May				
June				
July	286	32	380	5,412
August	473	4,968	1,810	956
September	450	3,264	1,765	1,894
October	90	1,236	293	0
TOTAL	1,298	9,500	4,248	8,263

* (Units = AF).

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-3.—Ruedi Reservoir releases for endangered fish April WY2025



FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
April

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW BELOW RUEDI w/o FISH REL (CFS)	REQUIRED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
TUE	4/1/2025	7,728.58	69,283	89	-	159	3	162	N	39	-	-
WED	4/2/2025	7,728.37	69,121	77	-	159	3	162	N	39	-	-
THU	4/3/2025	7,728.14	68,943	70	-	159	3	162	N	39	-	-
FRI	4/4/2025	7,727.89	68,750	62	-	159	3	162	N	39	-	-
SAT	4/5/2025	7,727.65	68,565	65	-	158	3	161	N	39	-	-
SUN	4/6/2025	7,727.40	68,374	68	-	157	3	160	N	39	-	-
MON	4/7/2025	7,727.16	68,190	72	-	158	3	160	N	39	-	-
TUE	4/8/2025	7,726.93	68,014	68	-	157	3	160	N	39	-	-
WED	4/9/2025	7,726.75	67,876	87	-	156	3	159	N	39	-	-
THU	4/10/2025	7,726.60	67,762	98	-	155	4	159	N	39	-	-
FRI	4/11/2025	7,726.53	67,709	129	-	156	4	159	N	39	-	-
SAT	4/12/2025	7,726.58	67,747	175	-	156	4	160	N	39	-	-
SUN	4/13/2025	7,726.69	67,831	199	-	156	4	160	N	39	-	-
MON	4/14/2025	7,726.79	67,907	195	-	156	5	161	N	39	-	-
TUE	4/15/2025	7,726.90	67,991	198	-	156	5	161	N	39	-	-
WED	4/16/2025	7,727.07	68,121	222	-	156	5	162	N	39	-	-
THU	4/17/2025	7,727.20	68,221	207	-	156	6	162	N	39	-	-
FRI	4/18/2025	7,727.37	68,351	221	-	156	6	162	N	39	-	-
SAT	4/19/2025	7,727.41	68,381	172	-	157	6	163	N	39	-	-
SUN	4/20/2025	7,727.39	68,366	149	-	157	6	163	N	39	-	-
MON	4/21/2025	7,727.35	68,335	141	-	156	6	163	N	39	-	-
TUE	4/22/2025	7,727.30	68,297	127	-	146	6	152	N	39	-	-
WED	4/23/2025	7,727.31	68,305	129	-	125	6	131	N	39	-	-
THU	4/24/2025	7,727.41	68,381	150	-	111	6	117	N	39	-	-
FRI	4/25/2025	7,727.53	68,473	158	-	112	6	118	N	39	-	-
SAT	4/26/2025	7,727.70	68,604	178	-	112	6	117	N	39	-	-
SUN	4/27/2025	7,727.99	68,827	224	-	112	6	118	N	39	-	-
MON	4/28/2025	7,728.29	69,059	228	-	112	6	118	N	39	-	-
TUE	4/29/2025	7,728.44	69,175	170	-	112	6	118	N	39	-	-
WED	4/30/2025	7,728.56	69,267	159	-	112	7	119	N	39	-	-
Averages		7,727.44	68,408	143	-	145	5	150		39	-	-
Totals (acft)				8,501	-	8,627	277	8,904		2,321	-	-

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
May

+	DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW/ (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW/ BELOW RUEDI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
	THU	5/1/2025	7,728.71	69,384	174	3	112	7	119	N	110	-	-
	FRI	5/2/2025	7,728.86	69,500	174	3	112	7	119	N	110	-	-
	SAT	5/3/2025	7,729.04	69,640	187	3	113	7	120	N	110	-	-
	SUN	5/4/2025	7,729.36	69,889	241	3	113	7	120	N	110	-	-
	MON	5/5/2025	7,729.60	70,076	210	3	113	7	119	N	110	-	-
	TUE	5/6/2025	7,729.91	70,318	238	3	113	7	120	N	110	-	-
	WED	5/7/2025	7,730.19	70,537	227	3	113	8	120	N	110	-	-
	THU	5/8/2025	7,730.40	70,702	199	3	113	8	121	N	110	-	-
	FRI	5/9/2025	7,730.62	70,875	204	3	113	8	121	N	110	-	-
	SAT	5/10/2025	7,730.92	71,111	236	3	113	8	121	N	110	-	-
	SUN	5/11/2025	7,731.24	71,364	244	3	113	9	122	N	110	-	-
	MON	5/12/2025	7,731.63	71,673	272	3	113	11	123	N	110	-	-
	TUE	5/13/2025	7,732.11	72,054	308	3	113	14	126	N	110	-	-
	WED	5/14/2025	7,732.60	72,445	314	3	113	16	129	N	110	-	-
	THU	5/15/2025	7,733.01	72,772	282	3	113	14	127	N	110	-	-
	FRI	5/16/2025	7,733.38	73,069	266	3	113	13	126	N	110	-	-
	SAT	5/17/2025	7,733.70	73,327	246	3	113	12	125	N	110	-	-
	SUN	5/18/2025	7,733.99	73,561	235	3	113	11	124	N	110	-	-
	MON	5/19/2025	7,734.35	73,851	264	3	114	11	124	N	110	-	-
	TUE	5/20/2025	7,734.63	74,078	232	4	114	10	124	N	110	-	-
	WED	5/21/2025	7,734.87	74,273	216	4	114	9	123	N	110	-	-
	THU	5/22/2025	7,735.13	74,484	224	4	114	10	123	N	110	-	-
	FRI	5/23/2025	7,735.39	74,696	224	4	114	11	125	N	110	-	-
	SAT	5/24/2025	7,735.74	74,982	261	4	114	13	127	N	110	-	-
	SUN	5/25/2025	7,736.10	75,276	266	4	114	15	129	N	110	-	-
	MON	5/26/2025	7,736.54	75,637	300	4	114	15	129	N	110	-	-
	TUE	5/27/2025	7,736.93	75,958	280	4	115	15	130	N	110	-	-
	WED	5/28/2025	7,737.32	76,280	281	4	115	16	131	N	110	-	-
	THU	5/29/2025	7,737.77	76,652	306	4	115	17	132	N	110	-	-
	FRI	5/30/2025	7,738.20	77,009	299	4	115	17	133	N	110	-	-
	SAT	5/31/2025	7,738.69	77,417	324	4	115	18	133	N	110	-	-
Averages			7,733.26	72,996	249	3	113	11	125		110	-	-
Totals (acft)					15,340	213	6,977	691	7,668		6,764	-	-

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
June

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW BELOW RUEDI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
SUN	6/1/2025	7,739.34	77,960	398	9	115	20	135	N	110	-	-
MON	6/2/2025	7,740.02	78,530	412	9	115	21	136	N	110	-	-
TUE	6/3/2025	7,740.97	79,332	526	9	113	28	141	N	110	-	-
WED	6/4/2025	7,741.79	80,029	469	9	109	31	141	N	110	-	-
THU	6/5/2025	7,742.34	80,498	355	9	110	30	139	N	110	-	-
FRI	6/6/2025	7,742.89	80,969	344	9	98	28	126	N	110	-	-
SAT	6/7/2025	7,743.42	81,425	322	9	83	27	110	N	110	-	-
SUN	6/8/2025	7,743.97	81,900	332	9	83	26	110	N	110	-	-
MON	6/9/2025	7,744.55	82,402	346	9	84	26	110	N	110	-	-
TUE	6/10/2025	7,745.16	82,933	361	9	84	25	110	N	110	-	-
WED	6/11/2025	7,745.75	83,448	353	9	84	25	109	N	110	-	-
THU	6/12/2025	7,746.34	83,965	355	9	85	24	109	N	110	-	-
FRI	6/13/2025	7,746.90	84,458	342	9	85	24	108	N	110	-	-
SAT	6/14/2025	7,747.45	84,944	339	9	84	23	107	N	110	-	-
SUN	6/15/2025	7,747.97	85,404	326	9	85	22	107	N	110	-	-
MON	6/16/2025	7,748.47	85,849	320	9	87	20	107	N	110	-	-
TUE	6/17/2025	7,748.96	86,285	320	9	90	19	109	N	110	-	-
WED	6/18/2025	7,749.42	86,696	307	9	91	18	109	N	110	-	-
THU	6/19/2025	7,749.88	87,108	308	10	91	17	108	N	110	-	-
FRI	6/20/2025	7,750.30	87,485	291	10	91	15	107	N	110	-	-
SAT	6/21/2025	7,750.72	87,864	292	10	92	14	106	N	110	-	-
SUN	6/22/2025	7,751.15	88,253	297	10	92	14	106	N	110	-	-
MON	6/23/2025	7,751.52	88,588	274	10	96	12	108	N	110	-	-
TUE	6/24/2025	7,751.89	88,924	279	10	100	11	110	N	110	-	-
WED	6/25/2025	7,752.27	89,270	285	10	101	9	110	N	110	-	-
THU	6/26/2025	7,752.62	89,589	273	10	102	8	110	N	110	-	-
FRI	6/27/2025	7,752.94	89,882	259	10	102	7	110	N	110	-	-
SAT	6/28/2025	7,753.29	90,203	274	10	102	7	109	N	110	-	-
SUN	6/29/2025	7,753.60	90,488	256	10	102	7	109	N	110	-	-
MON	6/30/2025	7,753.89	90,755	247	10	103	6	109	N	110	-	-
Averages		7,747.66	85,181	329	9	95	19	114		110	-	-
Totals (acft)				19,566	559	5,669	1,125	6,794		6,546	-	-

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
July

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW/ BELOW RUEDI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
TUE	7/1/2025	7,754.09	90,939	204	9	102	6	108	N	110	-	-
WED	7/2/2025	7,754.20	91,041	163	9	103	6	109	N	110	-	-
THU	7/3/2025	7,754.36	91,188	211	9	128	6	133	N	110	-	24
FRI	7/4/2025	7,754.36	91,188	159	9	150	6	156	N	110	-	50
SAT	7/5/2025	7,754.36	91,188	159	9	151	5	156	N	110	-	50
SUN	7/6/2025	7,754.35	91,179	155	9	151	5	156	N	110	-	50
MON	7/7/2025	7,754.29	91,124	153	9	172	5	178	N	110	-	71
TUE	7/8/2025	7,754.17	91,013	150	9	197	5	203	N	110	-	100
WED	7/9/2025	7,754.04	90,893	147	9	199	5	204	N	110	-	100
THU	7/10/2025	7,753.91	90,773	147	9	199	7	205	N	110	-	100
FRI	7/11/2025	7,753.79	90,663	149	9	196	8	204	N	110	-	100
SAT	7/12/2025	7,753.64	90,525	133	9	194	10	204	N	110	-	100
SUN	7/13/2025	7,753.47	90,368	121	9	191	12	204	N	110	-	100
MON	7/14/2025	7,753.26	90,175	117	9	206	15	221	Y	132	34	100
TUE	7/15/2025	7,753.00	89,937	110	9	221	21	242	Y	130	67	100
WED	7/16/2025	7,752.72	89,681	96	9	217	25	241	Y	121	101	100
THU	7/17/2025	7,752.43	89,416	104	9	228	13	241	Y	116	135	100
FRI	7/18/2025	7,752.13	89,142	106	9	236	6	241	Y	112	168	100
SAT	7/19/2025	7,751.82	88,860	101	9	234	7	241	Y	108	202	100
SUN	7/20/2025	7,751.49	88,561	92	9	234	7	241	Y	99	235	100
MON	7/21/2025	7,751.17	88,271	96	9	234	8	241	Y	104	270	100
TUE	7/22/2025	7,750.86	87,990	104	9	237	5	241	Y	109	305	100
WED	7/23/2025	7,750.53	87,693	99	9	240	3	243	Y	102	340	100
THU	7/24/2025	7,750.21	87,405	104	9	240	3	243	Y	107	375	100
FRI	7/25/2025	7,749.88	87,108	99	9	240	3	243	Y	102	410	100
SAT	7/26/2025	7,749.53	86,794	90	9	240	3	243	Y	94	444	100
SUN	7/27/2025	7,749.15	86,455	78	9	241	3	244	Y	81	479	100
MON	7/28/2025	7,748.77	86,116	78	9	241	3	244	Y	81	514	100
TUE	7/29/2025	7,748.39	85,777	78	8	240	3	243	Y	81	549	100
WED	7/30/2025	7,748.05	85,475	79	8	223	3	225	Y	81	584	100
THU	7/31/2025	7,747.79	85,245	93	8	201	3	204	Y	96	619	100
Averages		7,752.07	89,103	122	9	203	7	210		106	188	88
Totals (acft)				7,492	534	12,467	433	12,900		6,517	11,565	5,246

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
August

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW BELOW RUEDI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
FRI	8/1/2025	7,747.52	85,006	86	6	201	3	204	Y	89	666	100
SAT	8/2/2025	7,747.24	84,758	82	6	200	3	203	Y	85	713	100
SUN	8/3/2025	7,746.97	84,520	87	6	201	3	204	Y	90	760	100
MON	8/4/2025	7,746.66	84,247	70	6	202	3	205	Y	73	807	100
TUE	8/5/2025	7,746.34	83,965	67	6	203	3	205	Y	69	872	100
WED	8/6/2025	7,746.01	83,676	63	6	203	2	205	Y	65	937	100
THU	8/7/2025	7,745.69	83,396	67	6	203	2	205	Y	70	989	100
FRI	8/8/2025	7,745.35	83,099	69	6	213	2	215	Y	71	1,041	111
SAT	8/9/2025	7,744.96	82,759	60	6	225	2	228	Y	62	1,094	125
SUN	8/10/2025	7,744.56	82,411	56	6	225	2	227	Y	58	1,146	125
MON	8/11/2025	7,744.16	82,064	50	6	219	2	221	Y	52	1,199	125
TUE	8/12/2025	7,743.79	81,744	55	6	210	2	212	Y	57	1,252	125
WED	8/13/2025	7,743.46	81,459	53	6	191	2	193	Y	55	1,304	108
THU	8/14/2025	7,743.21	81,244	55	6	158	2	160	Y	57	1,357	80
FRI	8/15/2025	7,742.96	81,029	55	6	158	2	160	Y	57	1,409	80
SAT	8/16/2025	7,742.73	80,832	64	6	158	2	160	Y	66	1,462	80
SUN	8/17/2025	7,742.48	80,618	55	6	157	2	159	Y	57	1,515	80
MON	8/18/2025	7,742.22	80,395	51	6	157	2	159	Y	53	1,567	80
TUE	8/19/2025	7,741.96	80,173	50	6	157	2	158	Y	52	1,620	80
WED	8/20/2025	7,741.73	79,977	63	6	156	2	158	Y	65	1,722	80
THU	8/21/2025	7,741.47	79,756	61	6	167	2	169	Y	63	1,824	80
FRI	8/22/2025	7,741.14	79,476	45	6	181	2	183	Y	47	1,926	80
SAT	8/23/2025	7,740.83	79,214	54	6	181	2	183	Y	56	2,028	80
SUN	8/24/2025	7,740.51	78,943	50	6	180	2	182	Y	51	2,131	80
MON	8/25/2025	7,740.21	78,690	64	6	186	3	189	Y	68	2,233	88
TUE	8/26/2025	7,739.90	78,429	70	6	196	4	200	Y	74	2,335	100
WED	8/27/2025	7,739.69	78,253	111	6	194	6	200	Y	117	2,437	100
THU	8/28/2025	7,739.40	78,010	75	6	192	8	200	Y	83	2,539	100
FRI	8/29/2025	7,739.10	77,759	71	6	192	8	200	Y	79	2,641	100
SAT	8/30/2025	7,738.81	77,517	74	6	191	9	200	Y	84	2,744	100
SUN	8/31/2025	7,738.54	77,292	83	6	191	9	200	Y	92	2,846	100
Averages		7,742.89	80,991	65	6	189	3	192		68	1,584	96
Totals (acft)				4,005	362	11,596	200	11,796		4,205	97,422	5,925

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUELI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
September

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUELI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW/ BELOW RUELI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
MON	9/1/2025	7,738.23	77,034	64	3	190	10	200	Y	73	2,949	100
TUE	9/2/2025	7,737.88	76,743	54	3	197	10	207	Y	64	3,052	100
WED	9/3/2025	7,737.47	76,404	47	3	214	6	220	Y	53	3,155	100
THU	9/4/2025	7,737.05	76,057	46	3	217	2	219	Y	48	3,258	100
FRI	9/5/2025	7,736.64	75,719	51	3	218	2	220	Y	53	3,361	100
SAT	9/6/2025	7,736.26	75,407	61	3	215	2	217	Y	63	3,464	100
SUN	9/7/2025	7,735.86	75,080	52	3	214	2	216	Y	54	3,568	100
MON	9/8/2025	7,735.46	74,753	53	3	214	2	216	Y	55	3,671	100
TUE	9/9/2025	7,735.04	74,411	46	3	215	2	217	Y	48	3,774	100
WED	9/10/2025	7,734.62	74,070	46	3	215	2	217	Y	48	3,873	100
THU	9/11/2025	7,734.21	73,738	51	3	215	2	217	Y	53	3,972	100
FRI	9/12/2025	7,733.84	73,439	68	3	215	2	217	Y	70	4,071	100
SAT	9/13/2025	7,733.44	73,117	56	3	215	2	217	Y	58	4,170	100
SUN	9/14/2025	7,733.08	72,829	73	3	215	2	218	Y	75	4,265	100
MON	9/15/2025	7,732.67	72,500	53	3	215	2	217	Y	55	4,366	100
TUE	9/16/2025	7,732.26	72,173	53	3	215	2	217	Y	55	4,430	75
WED	9/17/2025	7,731.86	71,855	57	3	214	2	217	Y	60	4,479	75
THU	9/18/2025	7,731.49	71,562	50	3	194	2	197	Y	52	4,529	75
FRI	9/19/2025	7,731.21	71,340	59	3	167	2	169	Y	61	4,578	75
SAT	9/20/2025	7,730.91	71,104	51	3	167	2	169	Y	53	4,627	75
SUN	9/21/2025	7,730.63	70,883	60	3	168	2	170	Y	62	4,677	75
MON	9/22/2025	7,730.34	70,655	56	3	168	2	170	Y	58	4,726	75
TUE	9/23/2025	7,730.10	70,467	76	3	168	2	170	Y	78	4,775	75
WED	9/24/2025	7,729.84	70,263	68	3	168	2	170	Y	70	4,825	75
THU	9/25/2025	7,729.56	70,045	60	3	167	2	169	Y	63	4,874	75
FRI	9/26/2025	7,729.27	69,819	57	3	167	2	170	Y	59	4,924	75
SAT	9/27/2025	7,728.98	69,593	57	3	168	2	170	Y	59	4,973	75
SUN	9/28/2025	7,728.70	69,376	61	3	168	2	170	Y	64	5,022	75
MON	9/29/2025	7,728.41	69,151	58	3	168	2	170	Y	60	5,072	75
TUE	9/30/2025	7,728.12	68,928	58	3	168	2	170	Y	60	5,121	75
Averages		7,732.78	72,617	57	3	194	3	197		59	4,220	88
Totals (acft)				3,373	198	11,538	163	11,701		3,535	251,108	5,207

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2025
October

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAM (CFS)	RUEDI CALLED OUT? (Y= YES) (N= NO)	REQUIRED MIN FLOW BELOW RUEDI w/o FISH REL (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)
WED	10/1/2025	7,727.84	68,712	60	1	167	2	170	Y	62	5,163	75
THU	10/2/2025	7,727.50	68,450	25	1	155	2	157	Y	27	5,206	65
FRI	10/3/2025	7,727.27	68,274	51	1	138	2	140	Y	53	5,249	50
SAT	10/4/2025	7,727.09	68,136	70	1	138	2	140	Y	71	5,291	50
SUN	10/5/2025	7,726.87	67,968	55	1	138	2	140	Y	56	5,334	50
MON	10/6/2025	7,726.65	67,800	54	1	138	2	140	Y	56	5,376	50
TUE	10/7/2025	7,726.42	67,625	51	1	138	2	140	Y	53	5,419	50
WED	10/8/2025	7,726.18	67,443	48	1	138	2	140	Y	49	5,461	50
THU	10/9/2025	7,725.95	67,268	51	1	138	2	139	Y	53	5,504	50
FRI	10/10/2025	7,725.77	67,132	59	1	127	2	129	Y	61	5,546	41
SAT	10/11/2025	7,725.63	67,026	64	1	117	2	118	N	66	5,546	28
SUN	10/12/2025	7,725.55	66,965	87	1	116	2	118	N	89	5,546	28
MON	10/13/2025	7,725.42	66,867	67	1	115	2	117	N	69	5,546	28
TUE	10/14/2025	7,725.34	66,807	79	1	108	2	110	N	81	5,546	28
WED	10/15/2025	7,725.25	66,739	66	1	99	2	101	N	68	5,546	28
THU	10/16/2025	7,725.18	66,687	74	1	99	2	101	N	76	5,546	28
FRI	10/17/2025	7,725.11	66,634	59	1	85	2	87	N	61	5,546	-
SAT	10/18/2025	7,725.09	66,619	55	1	62	2	63	N	57	5,546	-
SUN	10/19/2025	7,725.07	66,604	55	1	61	2	63	N	57	5,546	-
MON	10/20/2025	7,725.04	66,581	47	1	57	2	59	N	49	5,546	-
TUE	10/21/2025	7,725.04	66,581	53	1	51	2	53	N	55	5,546	-
WED	10/22/2025	7,725.03	66,573	49	1	51	2	53	N	51	5,546	-
THU	10/23/2025	7,725.03	66,573	52	1	51	2	53	N	55	5,546	-
FRI	10/24/2025	7,725.03	66,573	52	1	51	3	53	N	54	5,546	-
SAT	10/25/2025	7,725.02	66,566	48	1	50	3	53	N	50	5,546	-
SUN	10/26/2025	7,725.00	66,551	44	1	51	3	53	N	47	5,546	-
MON	10/27/2025	7,724.99	66,544	44	1	46	3	49	N	46	5,546	-
TUE	10/28/2025	7,724.99	66,544	41	1	40	3	42	N	43	5,546	-
WED	10/29/2025	7,724.97	66,529	34	1	40	2	42	N	36	5,546	-
THU	10/30/2025	7,724.98	66,536	45	1	40	2	42	N	47	5,546	-
FRI	10/31/2025	7,724.98	66,536	41	1	40	2	42	N	44	5,546	-
Averages		7,725.65	67,047	54	1	92	2	94		56	5,484	21
Totals (acft)				3,331	72	5,650	124	5,774		3,455	337,231	1,385

NOTES: Releases of water to support 15-Mile Reach target started July 3rd and ceased October 16th. A total of 17,763 acre-feet was released to support Recovery Program target flows.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-4.—Fryingpan- Arkansas Project transmountain diversions WY2025

	April	May	June	July	August	September	Total
South Fork	100	1,858	3,310	193			5,461
No Name	0	488	1,156	0			1,644
Hunter	0	849	2,682	66			3,597
Midway	29	980	2,360	134			3,503
Sawyer	15	321	1,009	170			1,515
Chapman (NOT incl Mid NoN Hunt)	138	1,225	2,049	0			3,412
Subtotal	282	5,721	12,566	563			19,132
Carter	14	756	1,389	164			2,323
North Fork	2	196	558	66			823
Mormon	64	795	1,539	49			2,446
North Cunningham	6	518	861	19			1,405
Middle Cunningham	2	468	1,160	31			1,661
Ivanhoe ⁴	132	2,034	3,337	368			5,871
Granite	6	387	949	170			1,513
Fryingpan	69	2,095	4,761	339			7,265
Lily Pad	0	0	250	132			382
Subtotal	296	7,250	14,804	1,339			23,690
Total	578	12,971	27,370	1,902			42,821
Boustead Tunnel^{3,4}	Oct.– Apr. 1,159	12,680	27,197	1,520	165	138	42,181

(Units = AF)

¹ Does not include No Name, Hunter, Sawyer and Midway

² Includes South Cunningham

³ The difference between the west slope diversion and Charles H. Boustead Tunnel diversion results from the accuracy limitations of the measurement, rounding and seepage

⁴ This includes 2,893 AF of water conveyed from Ivanhoe Lake

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-5.—Fryingpan-Arkansas Project imports - Charles H. Boustead Tunnel Outlet

Water Year	Imports	Accumulated Imports	Twin Lakes Exchange	Available to SECWCD
1972	32	32	0	0
1973	36.8	68.8	0	16
1974	34.1	102.9	0	18.6
1975	37.2	140.1	0	25
1976	26.9	167	0	24
1977	11.4	178.4	0	25
1978	49.2	227.6	0	25
1979	53.7	281.3	0	25.6
1980	55.7	337	0	70
1981	34.6	371.6	0	25
1982	75.2	446.8	2.7	68
1983	90.8	537.6	0.3	125
1984	110.1	647.7	1.9	210
1985 ¹	70.2	717.9	1.7	289.9
1986 ¹	30.3	748.2	1.5	300.3
1987 ¹	2.2	750.4	1.1	288
1988 ¹	13.4	763.8	2	247.8
1989	36.2	800	1.7	197.6
1990	46.6	846.6	1.7	142.1
1991	59.1	905.7	1.5	58.7
1992	54.8	960.5	1.2	32.9
1993	86.6	1,047.1	2.3	70.1
1994	52.2	1,099.3	1.3	51.7
1995	90.5	1,189.8	2.3	55
1996 ¹	36.9	1,226.7	1.8	110
1997	78.6	1,305.3	1.8	116
1998	51.3	1,356.6	2.6	102
1999 ¹	40.8	1,397.4	2.1	127.5
2000	44.8	1,442.2	1.7	171.6
2001	45.3	1,487.5	2.1	67.5
2002	13.2	1,500.7	1.5	8.5
2003	54.9	1,555.6	2.4	37.5

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Water Year	Imports	Accumulated Imports	Twin Lakes Exchange	Available to SECWCD
2004	27.4	1,583	1.3	15.3
2005	54.6	1,637.6	3	40.8
2006	61.2	1,698.8	3	49.2
2007	54.2	1,753	3	40.4
2008	90	1,843	3	83
2009	82.7	1,925.7	3	78
2010	56.5	1,982.2	3	44
2011	98.9	2,081.1	2.3	75
2012	13.4	2,094.5	1.5	9.9
2013	46.7	2,141.2	2.8	37.6
2014	80.3	2,221.5	3	56
2015	72.2	2,293.7	1.9	67.9
2016	59.2	2,353	2.5	39.1
2017	67	2,420	2	46.3
2018	39.2	2,459.2	3	41.3
2019	95.8	2,555	0.1	42.6
2020	51	2,606	2.7	62.9
2024	31.9	2,637.9	3	25.8
2022	47.2	2,685.1	3	32.8
2024	63.2	2,739.7	3	45.3
2025	38.5	2,778.2	3	40.1

(Units = 1,000 AF)

¹ Imports impeded

Restriction: Not to exceed 120 KAF in 1 year

Not to exceed 2,352.8 KAF acre-feet in 34 consecutive years. The imports between 1991 and 2025 are 1872.5 KAF

1983 includes 3,120 acre-feet imported through the Twin Lakes Tunnel

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-6.—Turquoise Lake Operations WY2025

Month	Busk - Ivanhoe Imports through Carlton Tunnel	Busk- Ivanhoe Imports through Boustead Tunnel	Imports through Homestake Tunnel	Project Imports	Native Inflow	Evaporation	Total Outflow	End of Month Content	Water Surface Elevation (feet)
Oct. 2024	0.0	0.0	0.0	0.0	0.4	0.4	5.4	111.4	9,859.1
Nov. 2024	0.0	0.0	0.0	0.1	0.8	0.2	7.6	104.2	9,854.9
Dec. 2024	0.0	0.0	0.0	0.1	0.8	0.0	19.3	85.2	9,843.3
Jan. 2025	0.0	0.0	0.0	0.1	0.5	0.0	9.3	76.0	9,837.3
Feb. 2025	0.0	0.0	0.0	0.1	0.7	0.0	1.0	75.5	9,837.0
Mar. 2025	0.0	0.0	8.5	0.0	1.8	0.0	5.8	80.2	9,840.0
Apr. 2025	0.2	0.0	11.3	0.4	3.7	0.0	16.3	79.4	9,839.5
May 2025	0.8	0.5	3.2	12.4	6.4	0.4	17.2	84.5	9,842.8
Jun. 2025	0.8	2.1	0.0	27.1	7.7	0.7	5.8	113.5	9,860.4
Jul. 2025	0.0	0.2	0.0	1.2	1.9	0.6	1.5	114.4	9,860.9
Aug. 2025	0.0	0.0	0.0	0.0	1.4	0.6	9.3	105.8	9,855.8
Sep. 2025	0.0	0.0	0.0	0.0	1.6	0.3	18.9	88.2	9,845.2
Total* (acre-feet)	1,823	2,893	22,954	38,474	27,545	3,137	117,371		

(Units = 1,000 AF)

* Rounding may introduce discrepancies between monthly and yearly totals

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-7.—Twin Lakes/Mt. Elbert Forebay WY2025 operations

	Twin Lakes Canal Company			Mt. Elbert Conduit				Twin Lakes					
Date	Imports	Winter Water	Priority/ Native	Leadville Fish Hatchery ⁴	Halfmoon	Sugarloaf Bypass	Sugarloaf Powerplant/ Sleeve Valve	Native Inflow	Total Inflow	Evaporation ²	Total Outflow	End of Month Content ²	Water Elevation ³ (feet)
Oct. 24	0.4	0.0	0.0	0.3	0.0	4.8	0.0	2.0	7.2	0.7	1.6	132.5	9,193.58
Nov. 24	0.5	0.0	0.0	0.3	0.0	3.4	3.7	0.5	8.1	0.3	13.1	127.2	9,193.41
Dec. 24	0.6	0.5	0.0	0.3	0.0	0.1	18.7	0.5	20.0	0.0	17.5	129.7	9,192.19
Jan. 25	0.5	1.4	0.0	0.3	0.0	0.0	8.8	0.9	10.2	0.0	16.6	123.3	9,190.58
Feb. 25	0.3	0.7	0.0	0.3	0.0	0.5	0.0	0.8	1.7	0.0	8.3	116.7	9,187.49
Mar. 25	0.4	0.7	0.3	0.3	0.0	0.6	4.6	0.8	6.3	0.0	12.0	111.0	9,184.49
Apr. 25	1.4	0.0	2.7	0.3	0.0	0.6	15.1	1.0	18.0	0.3	16.7	112.0	9,184.98
May. 25	9.0	0.0	2.0	0.3	0.0	0.6	15.4	8.1	33.1	0.8	15.6	128.7	9,191.77
Jun. 25	17.3	0.0	0.0	0.3	0.0	0.6	3.9	21.5	43.3	1.2	32.0	138.8	9,196.21
Jul. 25	1.5	0.4	0.0	0.3	0.0	0.5	0.0	6.8	8.9	0.9	26.4	120.4	9,188.43
Aug. 25	0.0	0.0	1.0	0.3	0.0	0.6	8.1	3.1	11.9	0.8	23.7	108.0	9,182.60
Sept. 25	0.0	0.0	0.5	0.3	0.0	0.5	17.9	0.9	19.5	0.4	1.1	125.9	9,190.84
TOTAL¹ (acre- feet)	31,992	3,657	6,455	3,909	0	12,691	96,181	46,892	188,351	5,272	184,717		

(Units = 1,000 Acre-feet)

¹ Rounding may introduce discrepancies between monthly and yearly totals

² Both Twin Lakes and Mt. Elbert Forebay

³ Elevation of Twin Lakes

⁴ Leadville Fish Hatchery diverts from Mt Elbert Conduit

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-8.—Mt. Elbert pumped-storage power plant WY2025 operations

Month	Year	Net Generation (MWh)	Gross Generation (MWh)	Inflow to Mt. Elbert (KAF)	Water Through Generator (KAF)	Water Pumped from Twin Lakes to Forebay (KAF)
October	2024	7,526.0	7,745.6	4.7	21.6	16.9
November	2024	10,802.0	11,058.8	7.0	31.1	19.8
December	2024	4,178.0	4,437.4	20.2	13.2	1.5
January	2025	3,504.0	3,629.8	9.5	11.0	0.0
February	2025	0.0	0.0	0.5	0.0	0.0
March	2025	1,064.0	1,132.5	5.4	2.7	0.0
April	2025	5,797.0	6,020.0	15.5	18.6	4.0
May	2025	7,096.0	7,280.3	15.6	21.0	8.4
June	2025	10,253.0	10,407.6	4.2	28.8	24.6
July	2025	7,759.0	7,864.2	0.6	20.7	21.1
August	2025	18,061.0	18,216.2	8.5	45.6	38.4
September	2025	18,496.0	18,707.6	17.8	49.3	32.1
	TOTALS	94,536.0	96,499.9	109.6	263.5	166.7

MWh = megawatt-hour

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-9.—Pueblo Reservoir WY2025 operations

Month	Inflow				Evaporation	Total Outflow	End of Month Content	Water Surface Elevation (feet)
	Project	Contract	Native ²	Total				
October 24	.3	2.1	28	30.4	1.7	30.8	194	4,867.76
November 24	4.4	3.9	34.5	42.8	0.6	28.9	207.3	4,871.24
December 24	8.3	3	25.2	36.5	0.5	14.3	228.9	4,876.58
January 25	7.9	2.5	21.4	31.8	0.5	14.6	245.6	4,880.44
February 25	1	2.5	20.5	24	0.6	13	256.1	4,882.73
March 25	1.3	2.9	28.1	32.3	1.6	33.4	253.3	4,882.14
April 25	4.2	3.8	57.4	65.4	2.4	85.2	231.1	4,877.10
May 25	.8	5.2	60.6	66.6	2.1	69.6	226	4,875.88
June 25	.3	10.7	146.3	157.3	2.9	152.9	227.5	4,876.23
July 25	7.6	8.9	62.5	79	3.4	93.9	209.1	4,871.71
August 25	7.9	8.7	40.8	57.4	2.6	68.3	195.1	4,868.05
September 25	.3	3.4	30.4	34.1	1.5	39	188.7	4,866.33
Total¹ (acre-feet)	44,358	10,1780	51,1385	65,7523	20,528	643,928		

(Units = 1,000 AF)

¹ Rounding may introduce discrepancies

² Native inflows are the total inflows less the account and project inflow. If the result is negative because of exchanges, 0 is recorded.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-10.—Reservoir storage allocation data

Reservoir	Dead	Inactive	Active Conservation	Joint Use	Exclusive Flood Control	Total Capacity Storage
Ruedi ¹	63	1,095	101,278	0	0	102,373
Turquoise ¹	2,810	8,920	120,478	0	0	129,398
Twin Lakes ¹	63,324	72,938	67,917	0	0	140,855 ²
Mt. Elbert ¹ Forebay	561	3,825	3,493	0	0	11,143
Pueblo ³	1,895	25,601	219,772	66,011	26,990	469,878

(Unit = Acre-feet).

¹ Area Capacity Table from 1984

² The top of the active conservation pool at Twin Lakes corresponds to 140,855 acre-feet. A tilted morning glory spillway reduces the actual storage available to 140,357 acre-feet

³ Area Capacity Table from 2012 Note: Inactive includes dead storage

Table A-11.—Monthly evaporation factors

Month	Ruedi	Turquoise	Twin Lakes	Pueblo
October	0.0530	0.1217	0.1217	0.1366
November	0	0.0566	0.0566	0.0886
December	0	0.0171	0.0171	0.0735
January	0	0.0274	0.0274	0.07078
February	0	0.0497	0.0497	0.10592
March	0	0.0771	0.0771	0.1548
April	0	0.1337	0.1337	0.1760
May	0.1470	0.2006	0.2006	---
June	0.3605	0.2554	0.2554	---
July	0.3244	0.2246	0.2246	---
August	0.2332	0.1766	0.1766	---
September	0.1419	0.1663	0.1663	---

Note: These factors are used only when the pan is frozen or unavailable. Ruedi doesn't have a pan. Factor is derived from $(\text{the average monthly evaporation volume} \times 12) / (0.7) / (\text{no. days in month})$ Evaporation in acre-feet=monthly factor*surface area of the lake*(1-% ice cover)

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-12.—Monthly evaporation for Fryingpan-Arkansas Project

Month	Ruedi		Turquoise		Twin Lakes		Pueblo	
	Average	WY2025	Average	WY2025	Average	WY2025	Average	WY2025
October 2024	59	81	363	426	527	602	1,166	1,675
November 2024	0	0	161	168	230	244	597	618
December 2024	0	0	16	29	26	33	461	540
January 2025	0	0	0	0	2	0	427	494
February 2025	0	0	0	0	3	0	610	635
March 2025	0	0	0	0	20	0	1,287	1,575
April 2025	5	0	9	0	182	261	1,813	2,358
May 2025	168	213	262	413	812	737	2,187	2,142
June 2025	486	559	700	681	1,164	1,055	2,742	2,914
July 2025	520	534	616	604	959	778	2,637	3,427
August 2025	327	362	495	553	759	673	2,220	2,619
September 2025	181	198	428	263	691	370	1,777	1,530

Average between 1996 and 2025

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

Table A-13.—Monthly precipitation data for Fryingpan-Arkansas Project (unit = inches)

Month	Chapman 1 Near Ruedi		Turquoise		Twin Lakes		Pueblo	
	Average	WY2025	Average	WY2025	Average	WY2025	Average	WY2025
October 24	2.5	1.4	1.14	0.87	0.87	0.63	0.80	0.70
November 24	2.3	3.9	1.17	0.11	0.47	0.08	0.37	2.36
December 24	3.1	1.9	1.32	0.76	0.45	0.53	0.28	0.15
January 25	3.0	1.7	1.66	0.53	0.53	0.14	0.38	1.25
February 25	2.7	2.6	1.55	1.25	0.54	0.42	0.42	0.19
March 25	3.1	2.4	1.49	2.01	0.60	0.10	0.89	0.01
April 25	3.7	2.1	1.59	0.15	0.82	0.17	1.61	0.83
May 25	3.1	1.1	1.49	0.82	0.93	0.72	1.70	2.76
June 25	1.1	0.8	0.82	0.81	0.77	1.22	1.06	1.74
July 25	2.7	1.2	1.91	1.47	1.75	0.55	1.96	1.95
August 25	2.5	1.8	2.09	1.67	1.56	1.35	2.06	2.10
September 25	1.8	1.7	1.39	1.48	1.12	1.69	1.08	9.99
Total	31.6	22.6	9.52	1.00	17.62	11.93	10.41	7.60
Maximum Annual	40.9	(2011)	25.95	(1957)	17.27	(1952)	20.32	(2007)

¹ The weather station at Ruedi was out of service for WY2025. The precipitation averages and totals from the Chapman SNOTEL have been substituted. The SNOTEL has been in operation since 2008.

Table 14.—Flood Control Benefits of the Fryingpan-Arkansas Project

WY	Ruedi Benefits	Ruedi Benefits Cumulative	Pueblo Benefits	Pueblo Benefits Cumulative
1976			\$320,000	\$320,000
1979			\$90,000	\$410,000
1980			\$86,000	\$496,000
1981			\$111,000	\$607,000
1982			\$836,000	\$1,443,000
1983	\$80,000	\$80,000	\$47,000	\$1,490,000
1984	\$330,000	\$410,000	\$1,039,000	\$2,529,000
1985	\$91,000	\$501,000	\$234,000	\$2,763,000
1986	\$70,000	\$571,000	\$0	\$2,763,000
1987	\$0	\$571,000	\$90,000	\$2,853,000
1988	\$0	\$571,000	\$0	\$2,853,000
1989	\$0	\$571,000	\$0	\$2,853,000
1990	\$0	\$571,000	\$0	\$2,853,000
1991	\$0	\$571,000	\$482,000	\$3,335,000
1992	\$0	\$571,000	\$266,000	\$3,601,000
1993	\$4,000	\$575,000	\$496,000	\$4,097,000
1994	\$280,000	\$855,000	\$290,000	\$4,387,000
1995	\$1,770,000	\$2,625,000	\$832,000	\$5,219,000
1996	\$1,550,000	\$4,175,000	\$0	\$5,219,000
1997	\$1,207,000	\$5,382,000	\$320,200	\$6,539,200
1998	\$0	\$5,382,000	\$0	\$6,539,200
1999	\$116,000	\$5,498,000	\$4,778,000	\$11,317,200
2000	\$1,061,000	\$6,559,000	\$0	\$11,317,200

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix A

WY	Ruedi Benefits	Ruedi Benefits Cumulative	Pueblo Benefits	Pueblo Benefits Cumulative
2001	\$0	\$6,559,000	\$0	\$11,317,200
2002	\$0	\$6,559,000	\$0	\$11,317,200
2003	\$1,515,100	\$8,074,100	\$0	\$11,317,200
2004	\$0	\$8,074,100	\$0	\$11,317,200
2005	\$970,200	\$9,044,300	\$0	\$11,317,200
2006	\$799,000	\$9,843,300	\$20,159,000	\$31,476,200
2007	\$103,000	\$9,946,300	\$0	\$31,476,200
2008	\$1,635,000	\$11,581,300	\$0	\$31,476,200
2009	\$740,100	\$12,321,400	\$0	\$31,476,200
2010	\$2,993,000	\$15,314,400	\$0	\$31,476,200
2011	\$3,002,000	\$18,316,400	\$0	\$31,476,200
2012	\$0	\$18,316,400	\$0	\$31,476,200
2013	\$0	\$18,316,400	\$383,900	\$31,860,100
2014	\$0	\$18,316,400	\$431,900	\$32,292,000
2015	\$1,402,300	\$19,718,700	\$4,493,000	\$36,785,000
2016	\$0	\$19,718,700	\$0	\$36,785,000
2017	\$0	\$19,718,700	\$0	\$36,785,000
2018	\$0	\$19,718,700	\$0	\$36,785,000
2019	\$0	\$19,718,700	\$189,100	\$36,974,100
2020	\$0	\$19,718,700	\$0	\$36,974,100
2021	\$0	\$19,718,700	\$0	\$36,974,100
2022	\$0	\$19,718,700	\$0	\$36,974,100
2023	\$1,237,900	\$20,956,600	\$163,260	\$37,137,360
2024	\$0	\$20,956,600	\$0	\$37,137,360

Appendix B

Figures

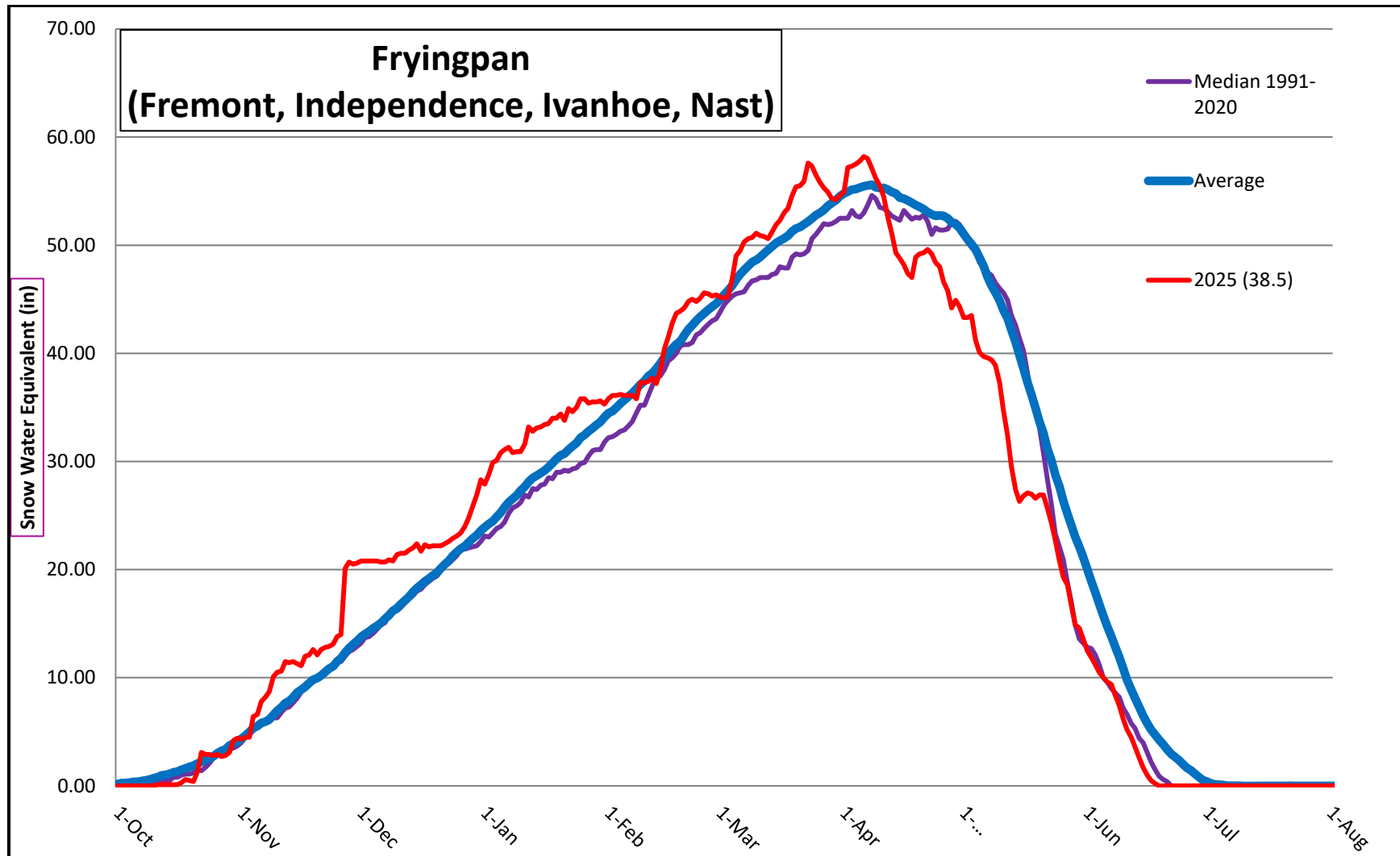


Figure B-1.—Combined snow water equivalent of Fremont Pass, Independence Pass, Ivanhoe Lake and Nast SNOTEL sites.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

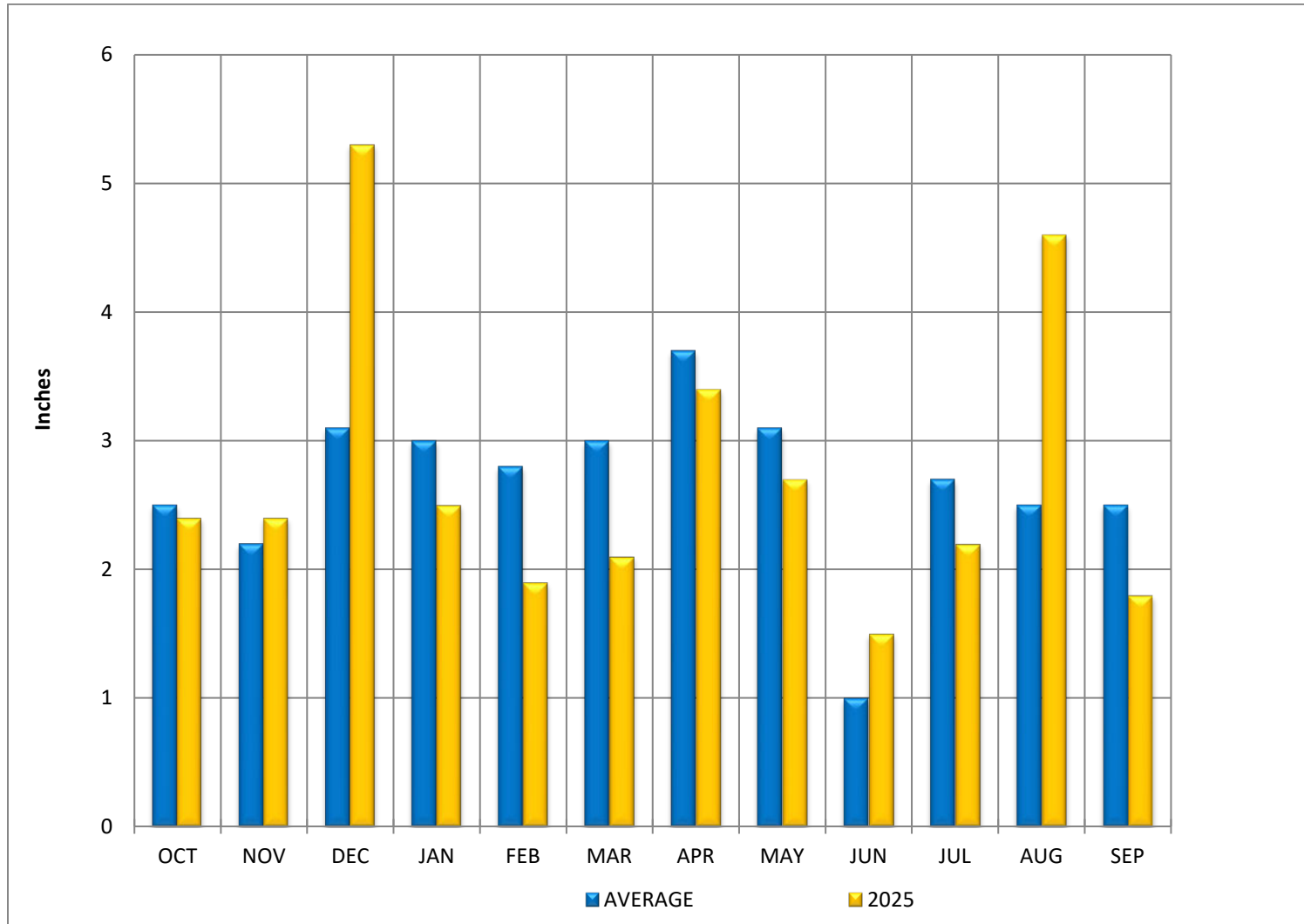


Figure B-2.—Chapman SNOTEL monthly precipitation WY2025.
The weather station at Ruedi was out of service for the year. These precipitation values are from the Chapman SNOTEL gage.

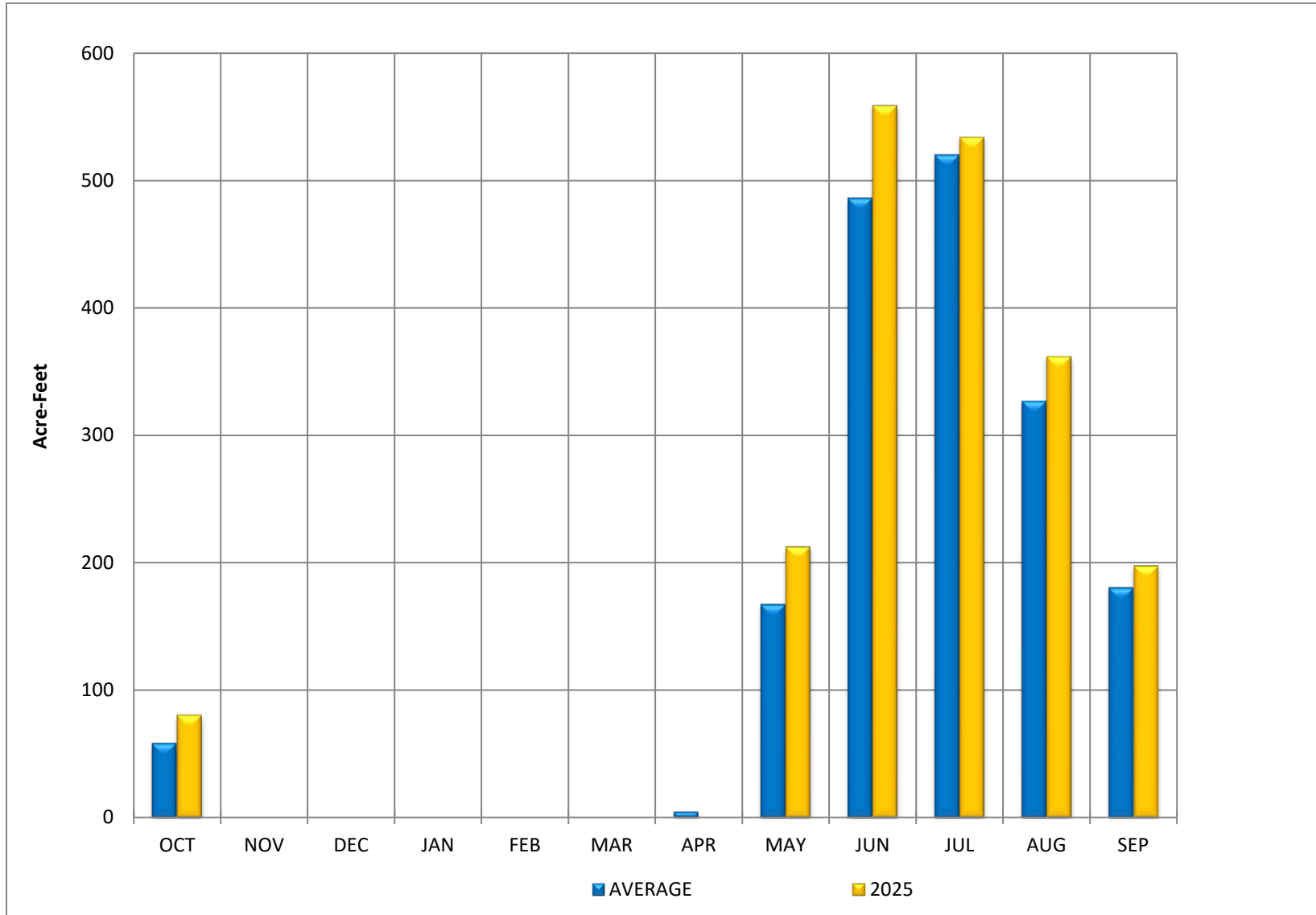


Figure B-3.—Ruedi Reservoir monthly evaporation WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

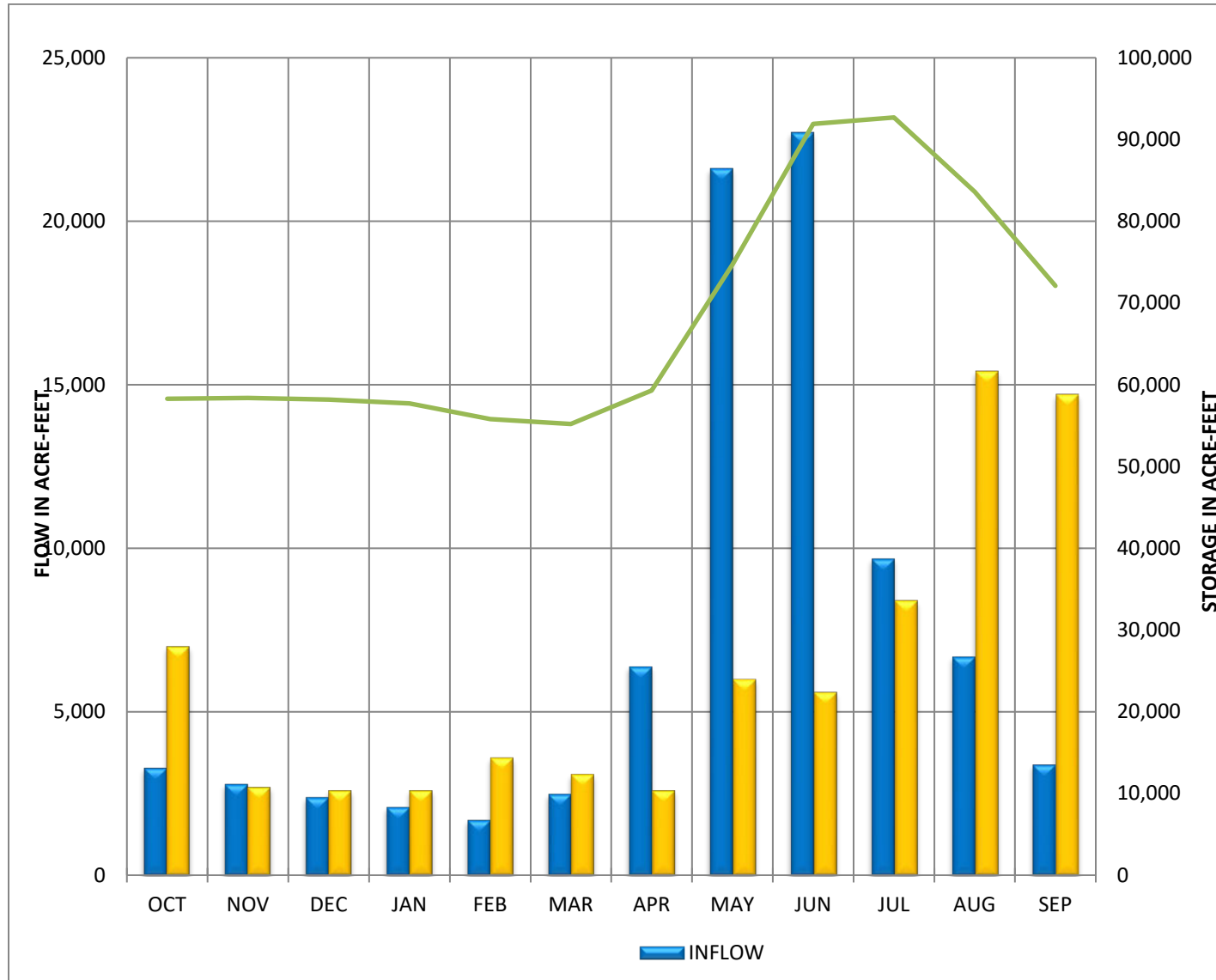


Figure B-4.—Ruedi Reservoir actual operations WY2025.

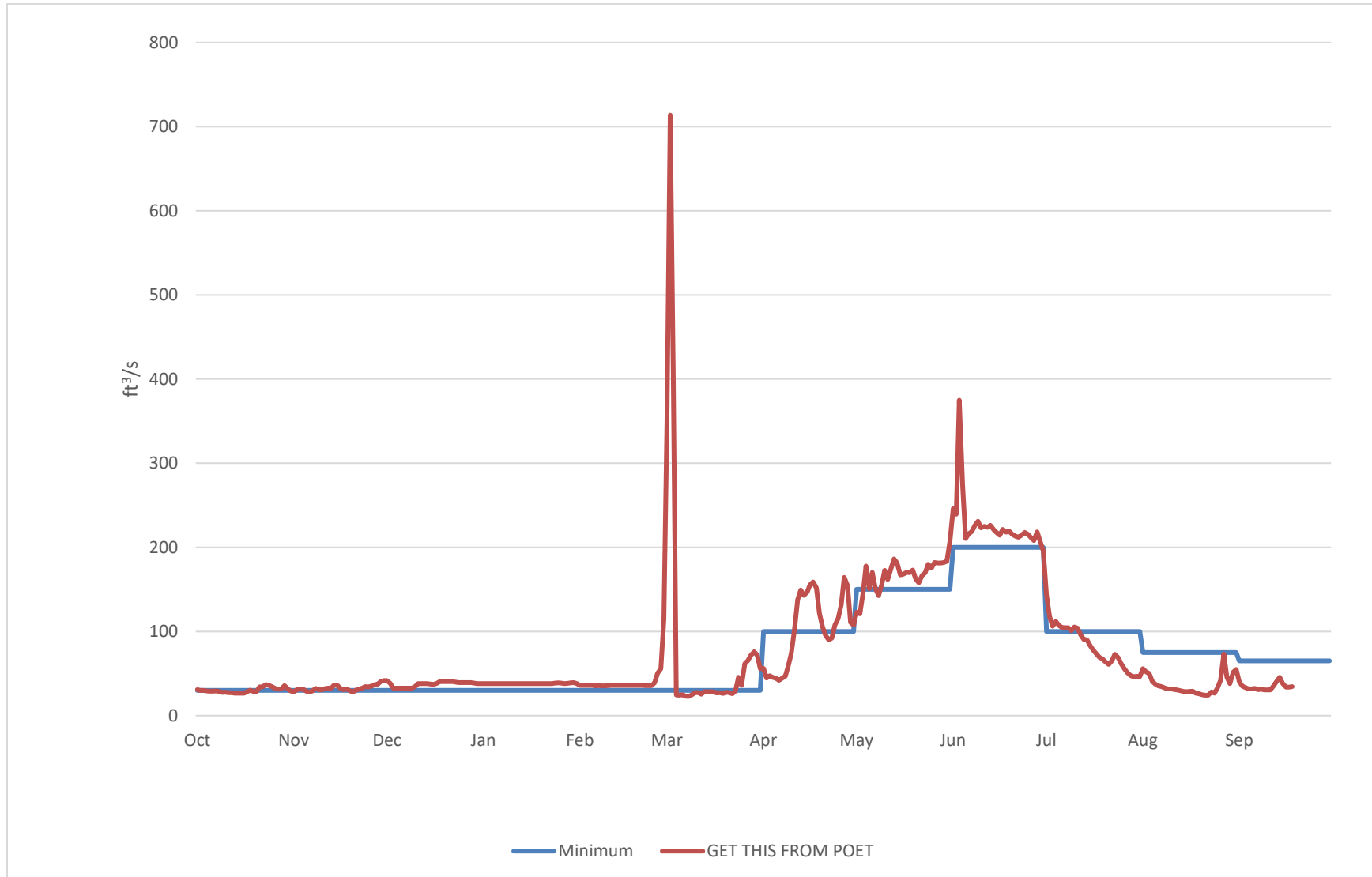


Figure B-5.—Fryingpan River near Thomasville daily discharge WY2025.

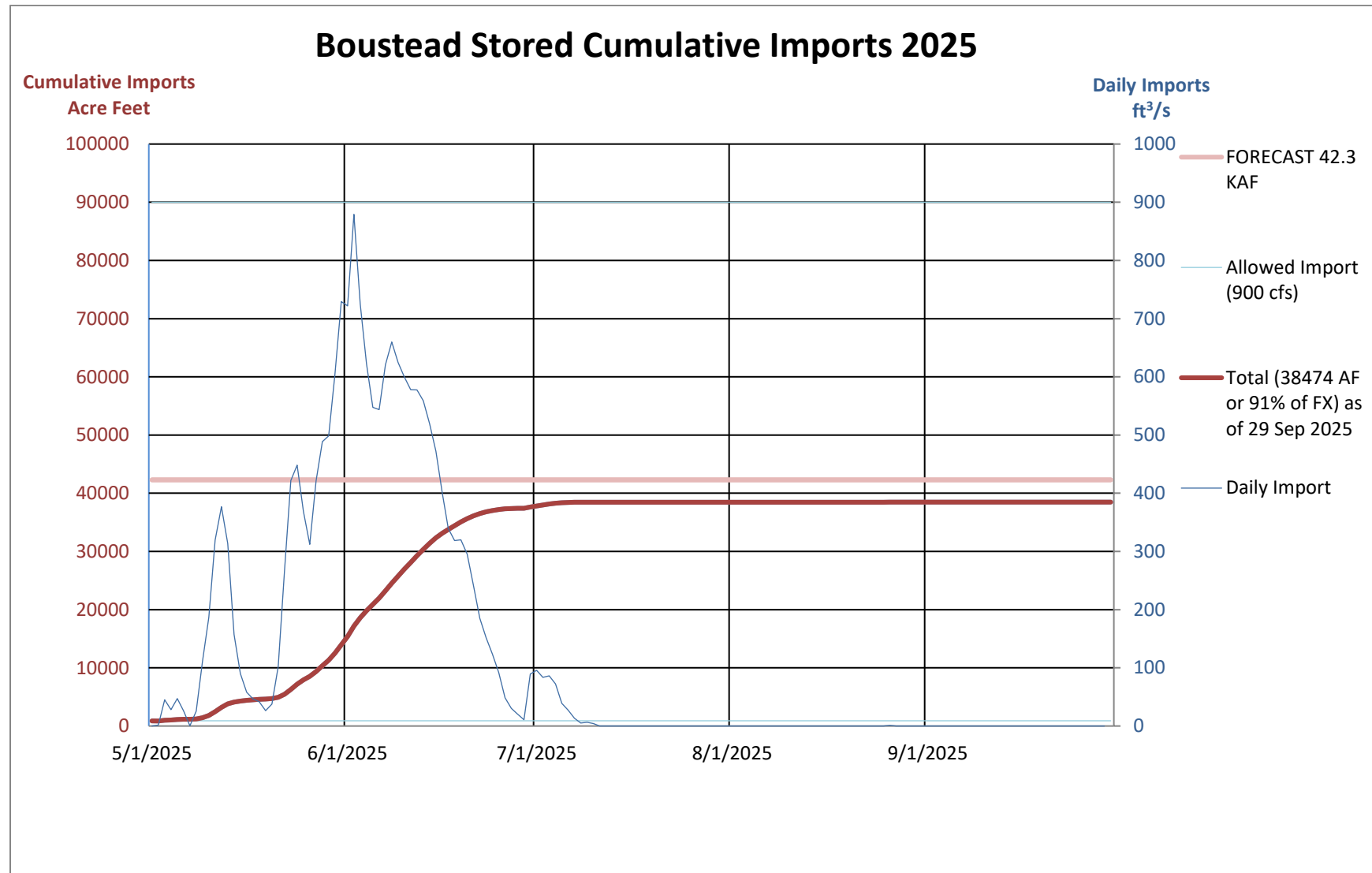


Figure B-6.—Boustead Tunnel actual operations WY2025.

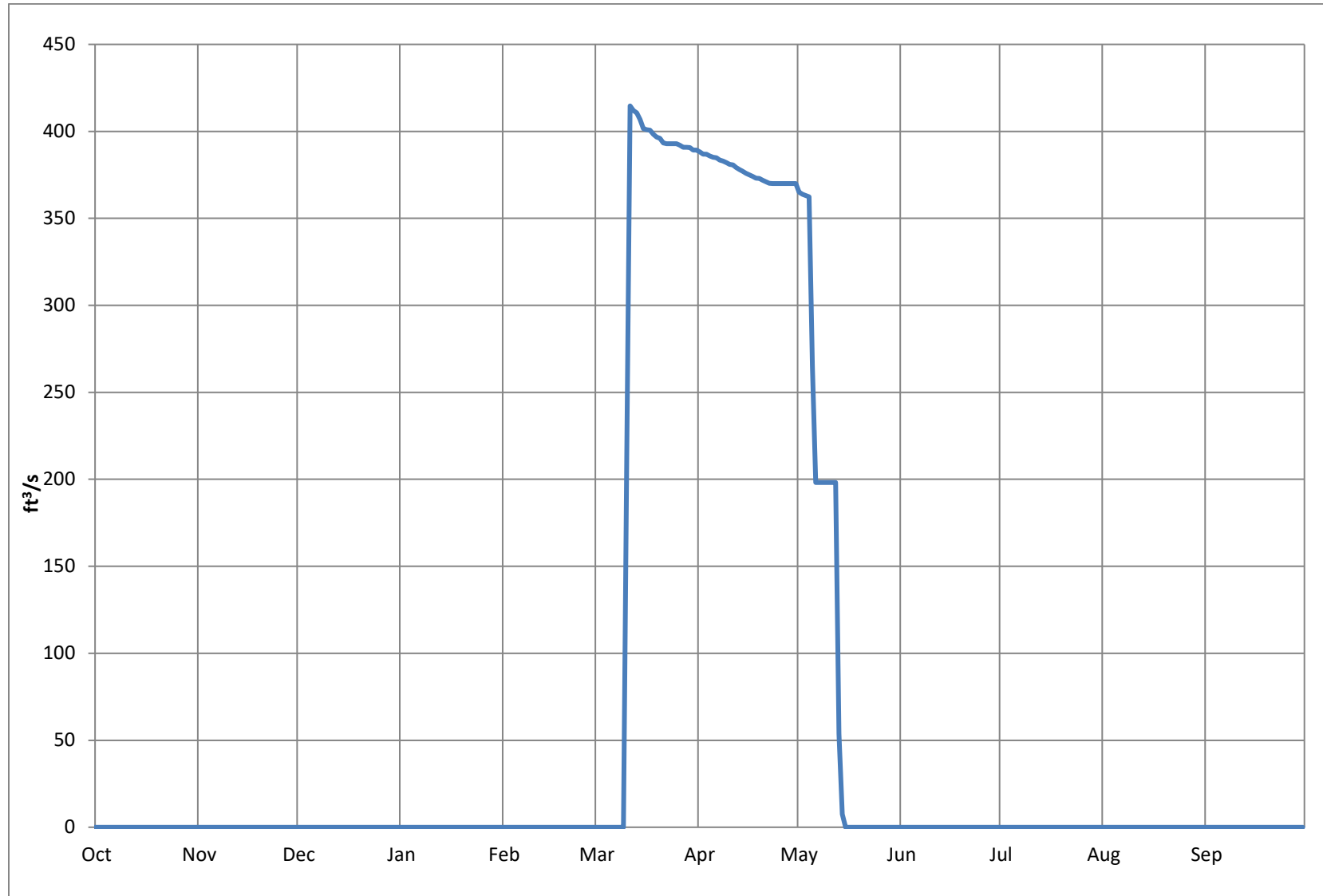


Figure B-7.—Homestake Tunnel actual operations WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

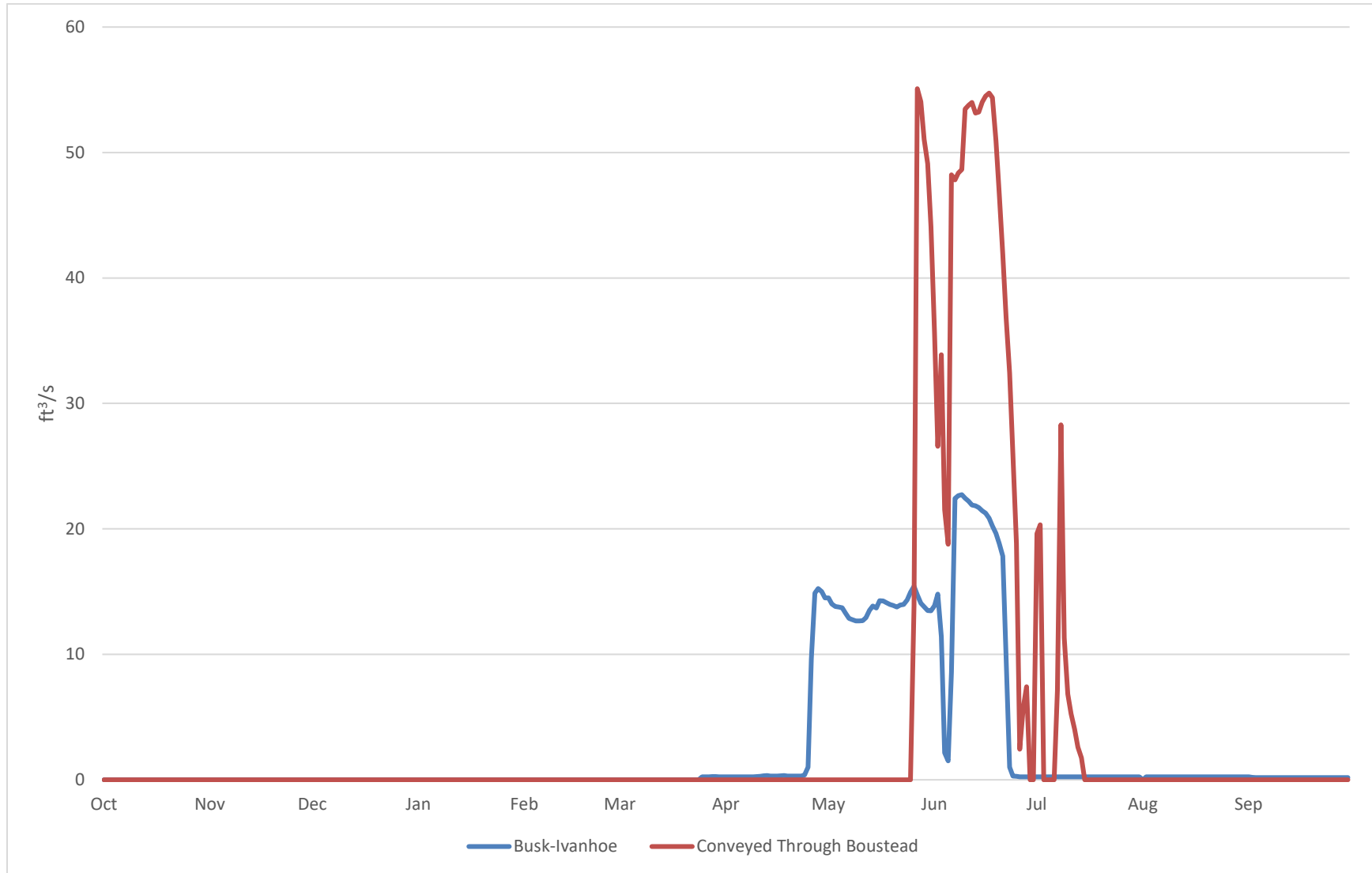


Figure B-8.—Busk-Ivanhoe Tunnel actual operations WY2025.

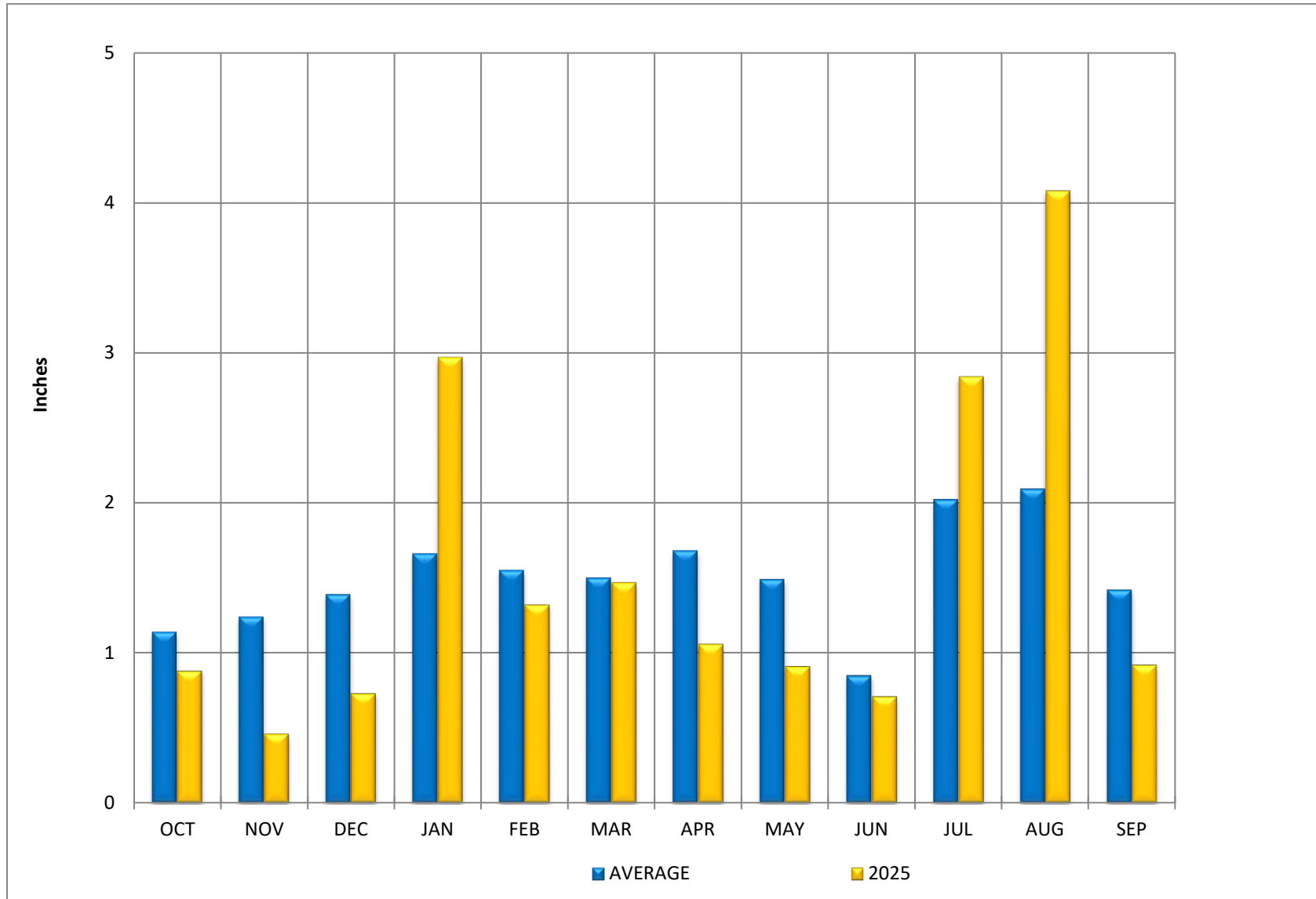


Figure B-9.—Turquoise Lake (Sugar Loaf Dam) monthly precipitation WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

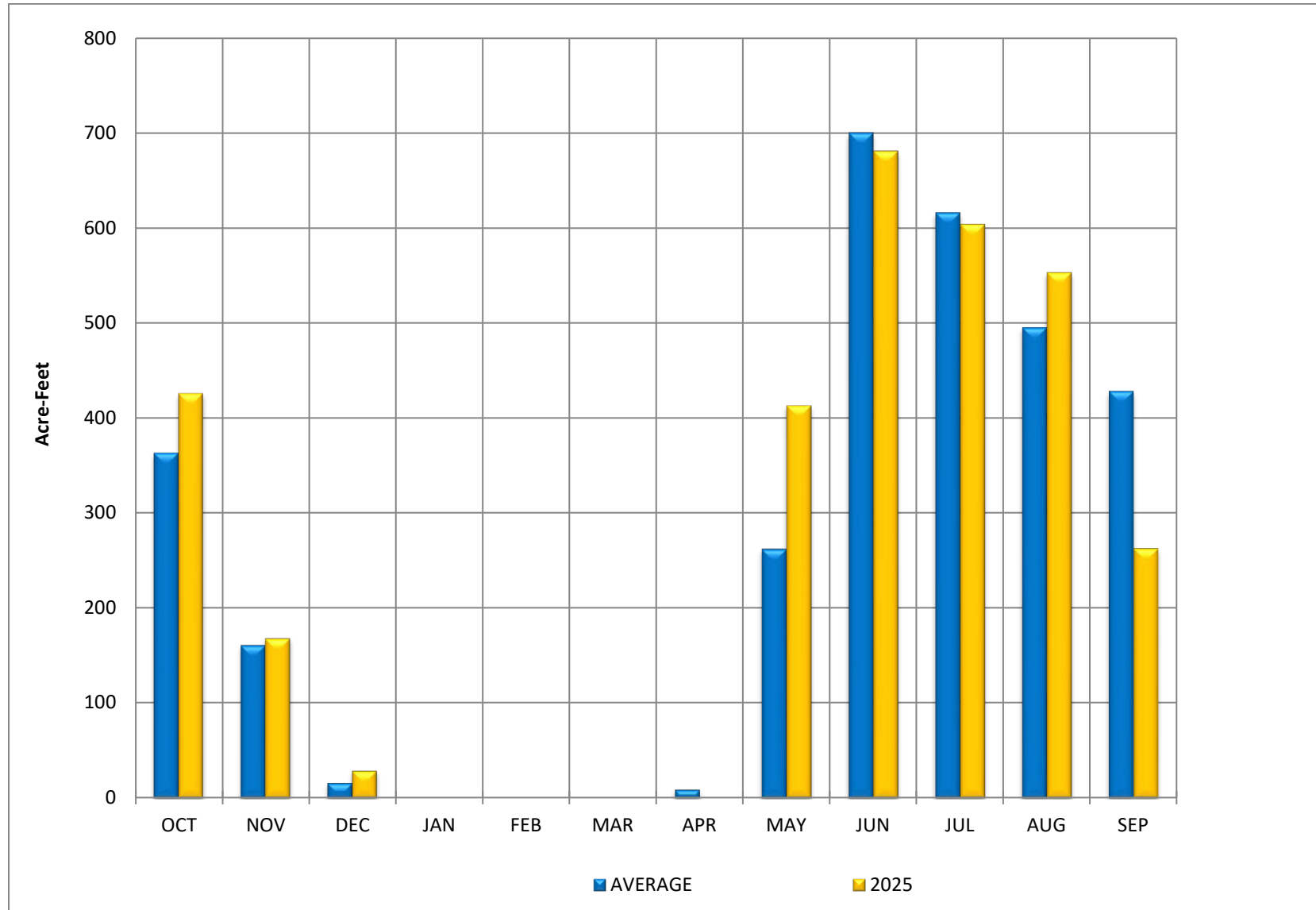


Figure B-10.—Turquoise Lake (Sugar Loaf Dam) monthly evaporation WY2025.

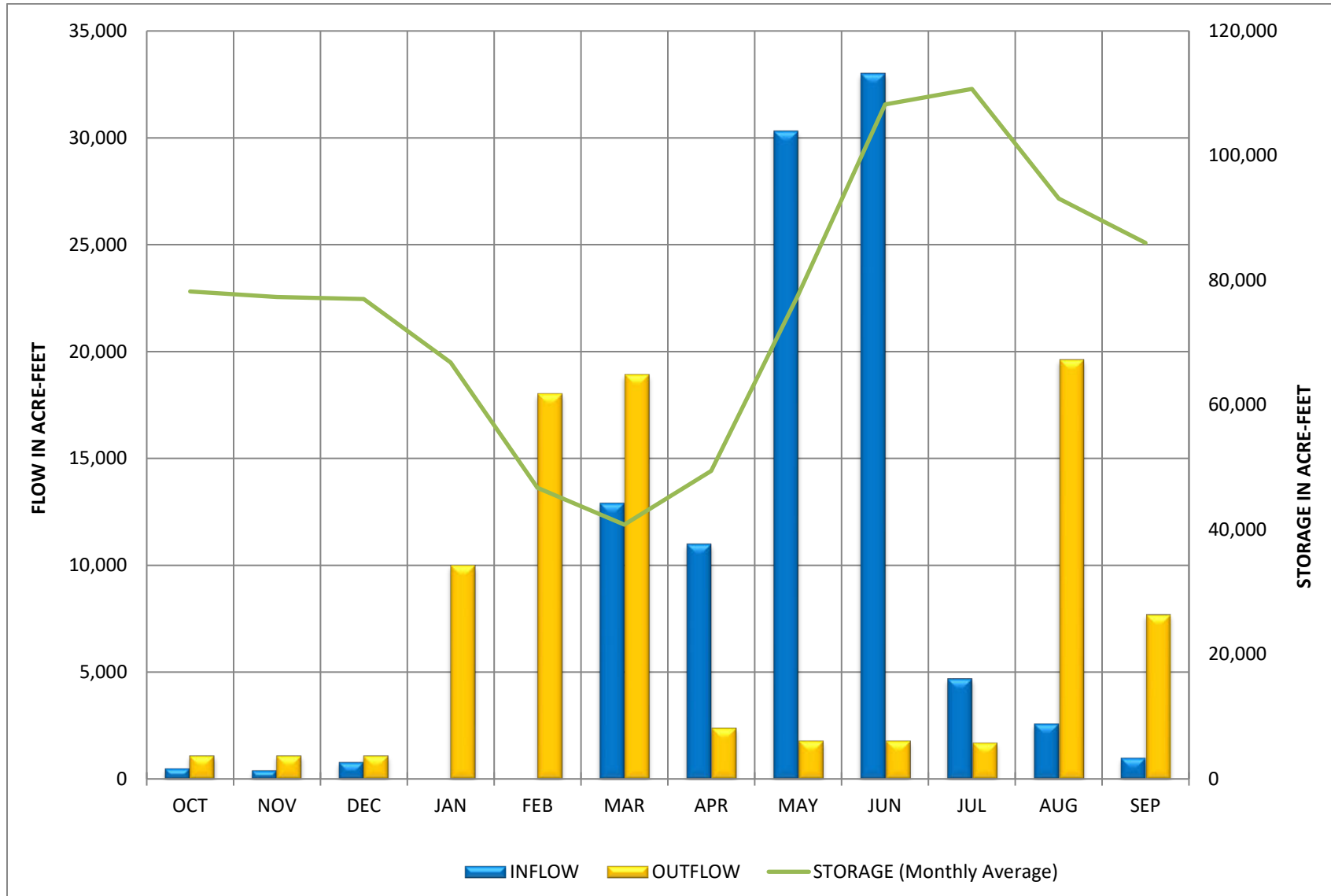


Figure B-11.—Turquoise Lake (Sugarloaf Dam) actual operations WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

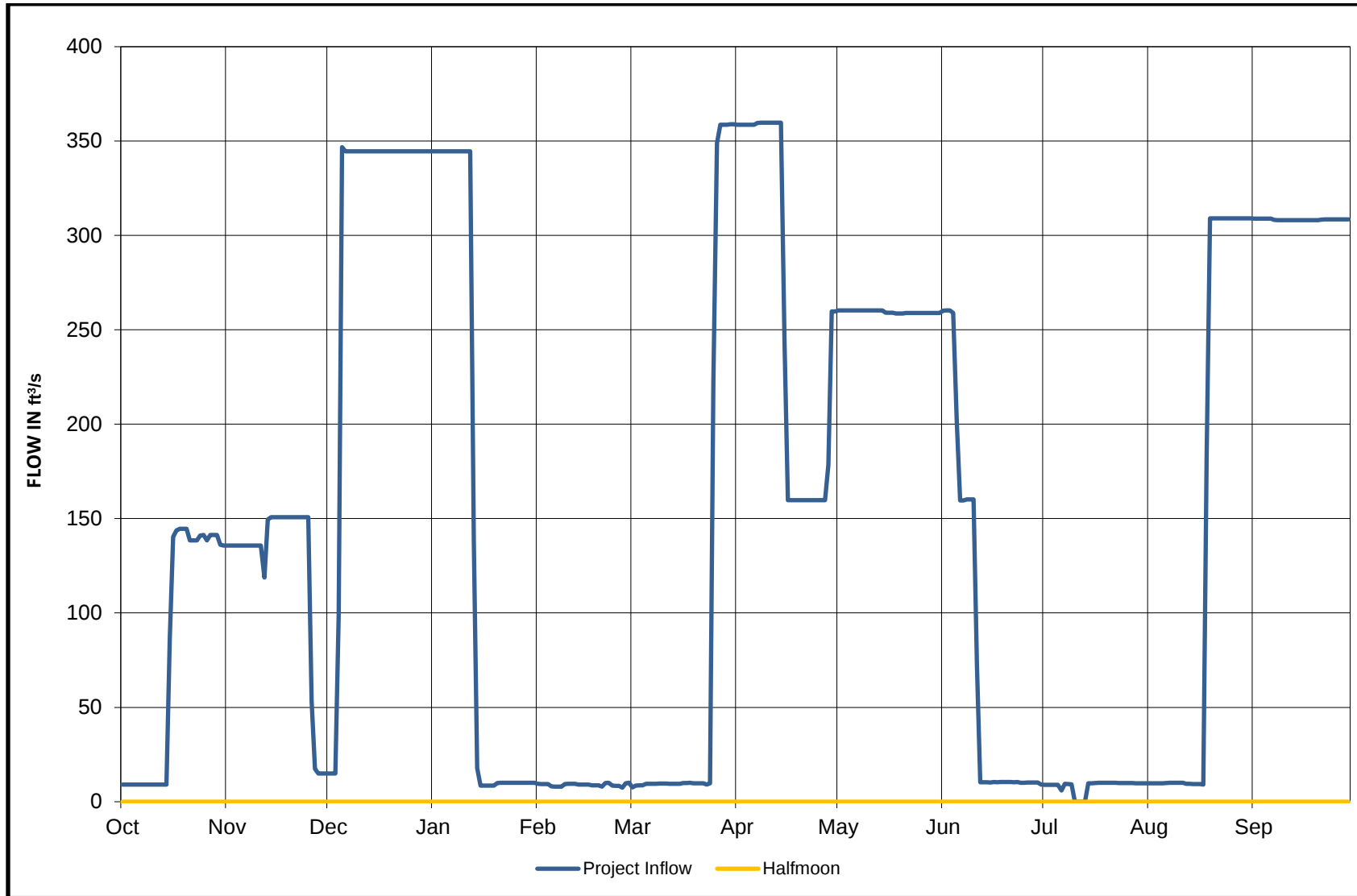


Figure B-12.—Mt. Elbert conduit inflow actual operations WY2025.

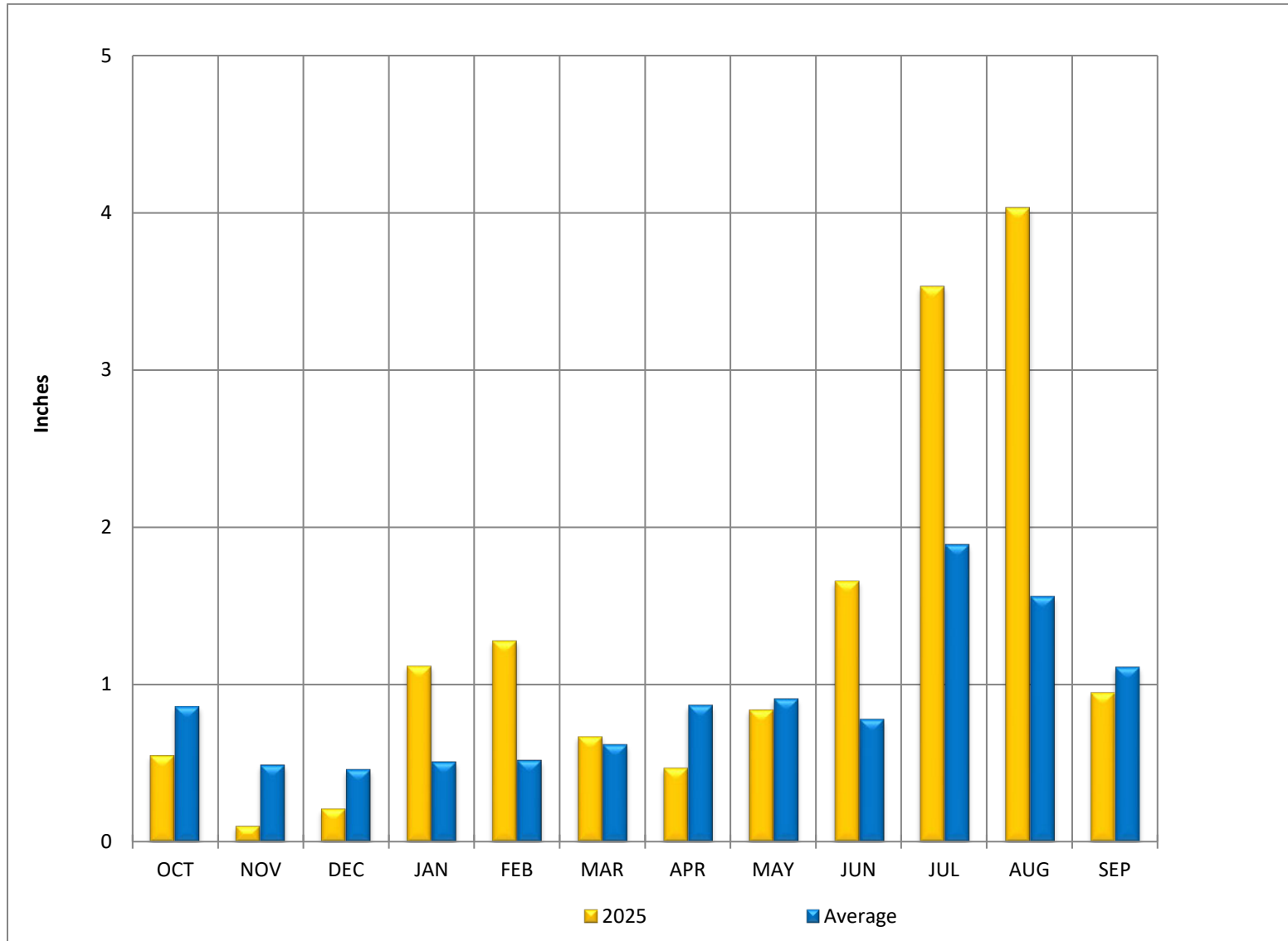


Figure B-13.—Twin Lakes monthly precipitation WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

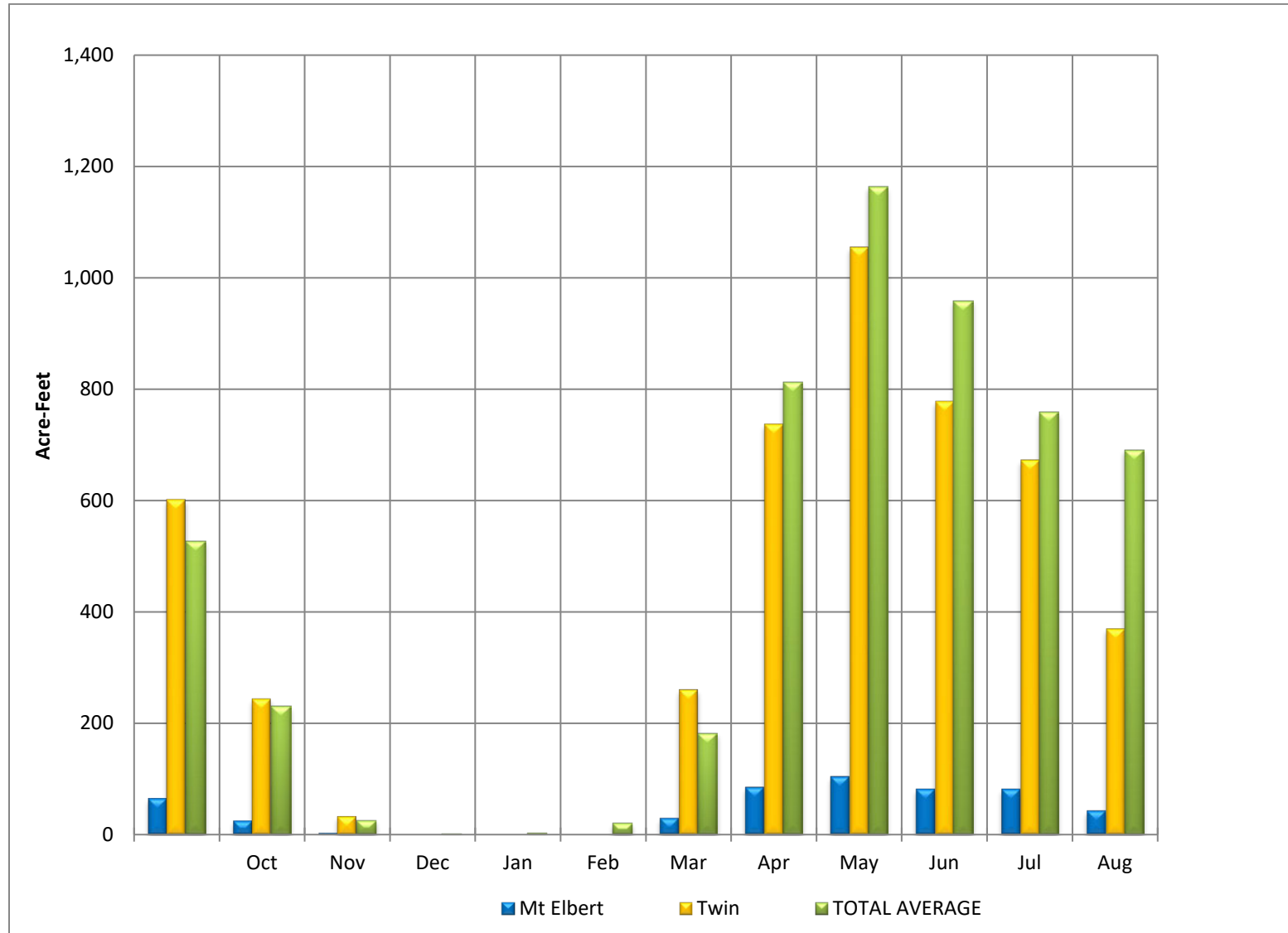


Figure B-14.—Twin Lakes Dam and Mt. Elbert Forebay monthly evaporation WY2025.

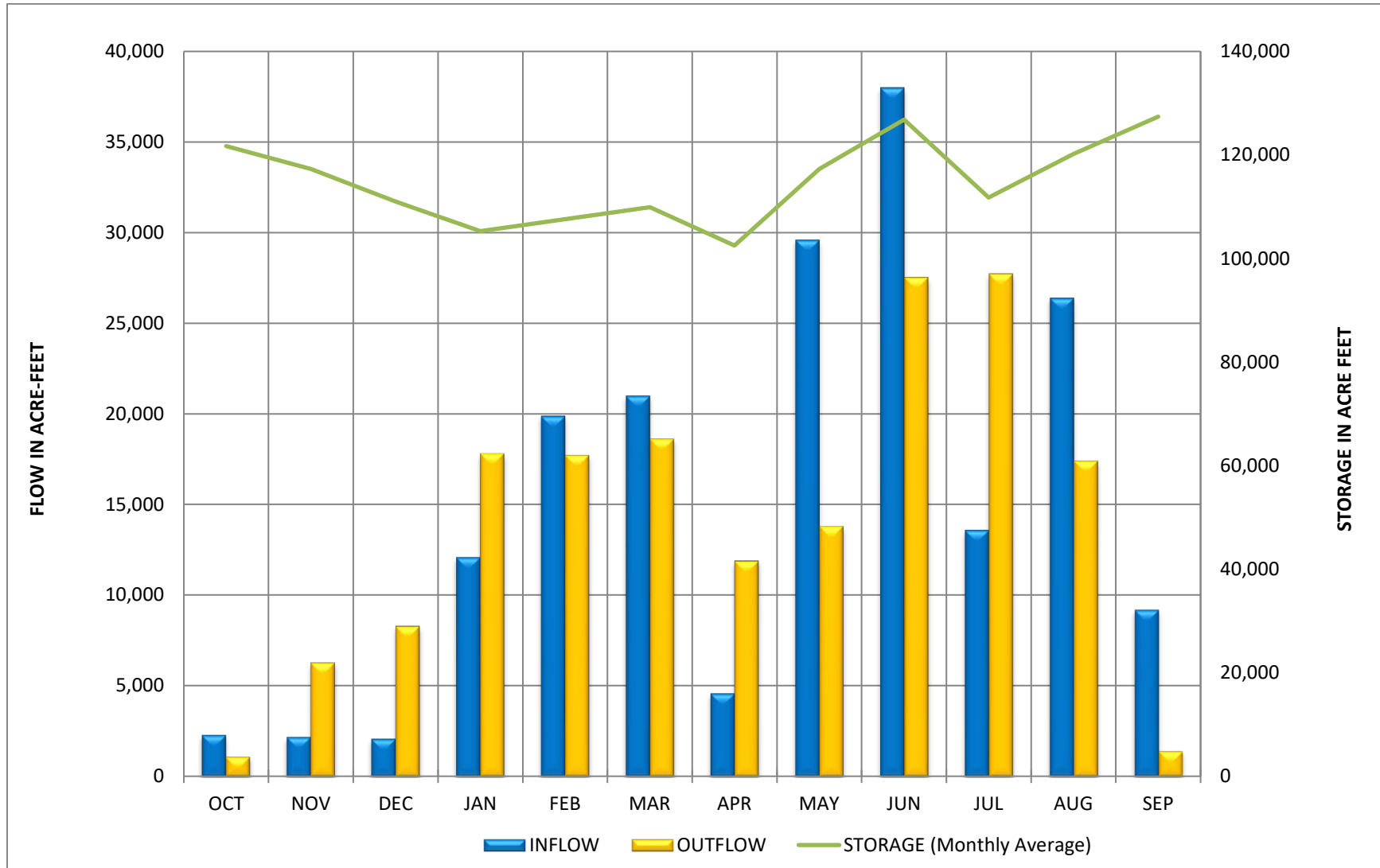


Figure B-15.—Twin Lakes/Mt. Elbert Forebay actual operations WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

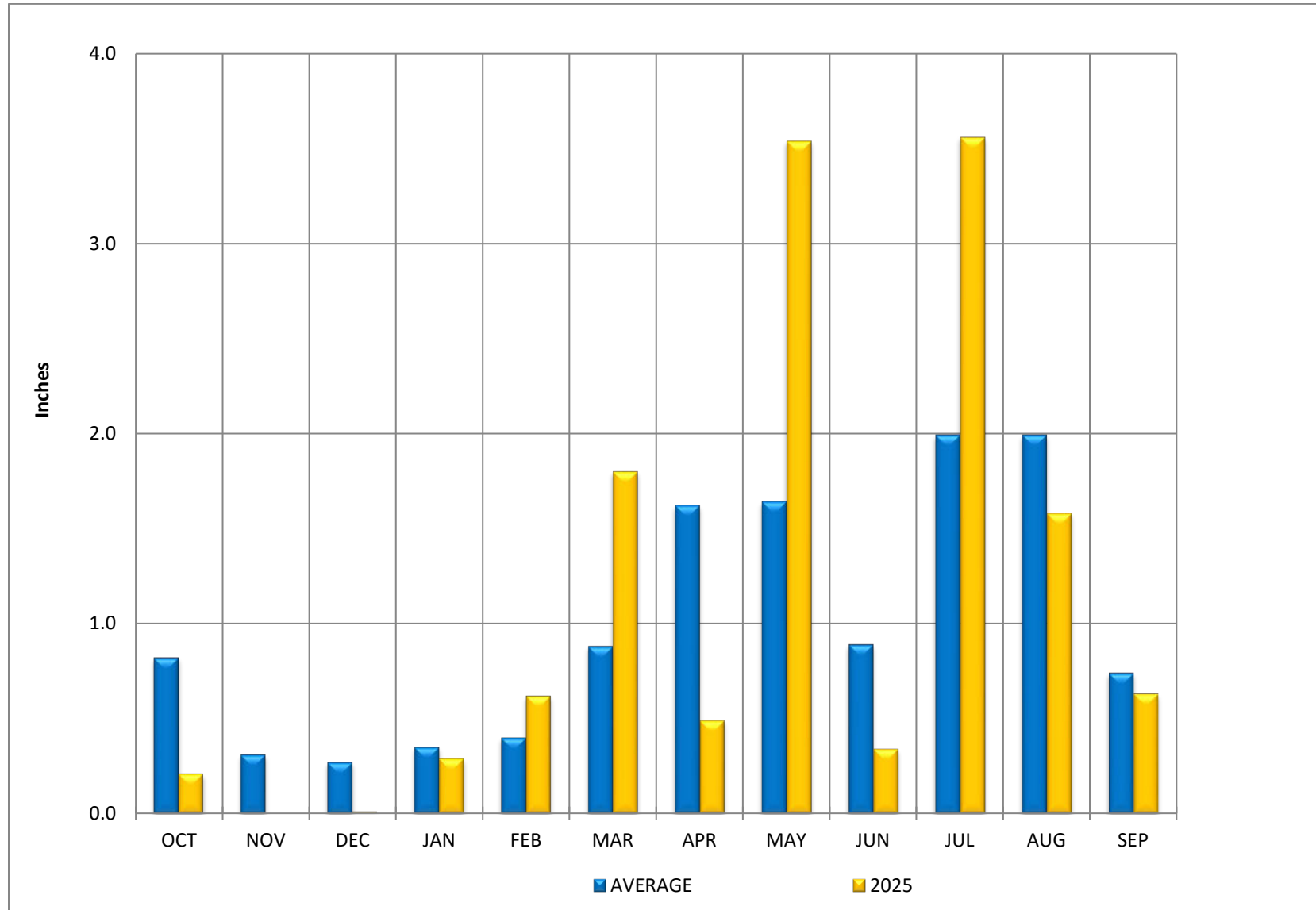


Figure B-16.—Pueblo Dam monthly precipitation WY2025.

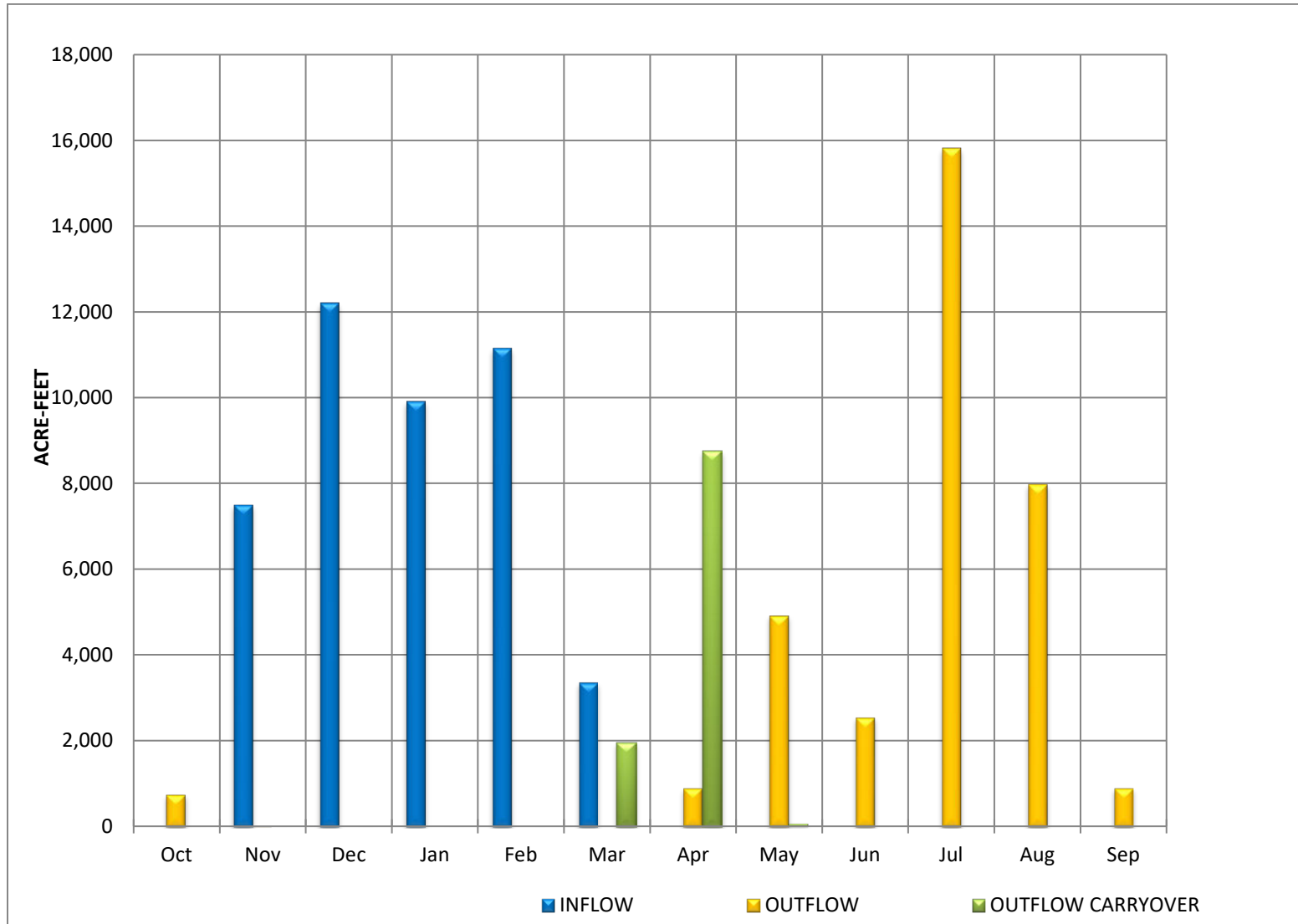


Figure B-17.—Pueblo Reservoir winter water WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

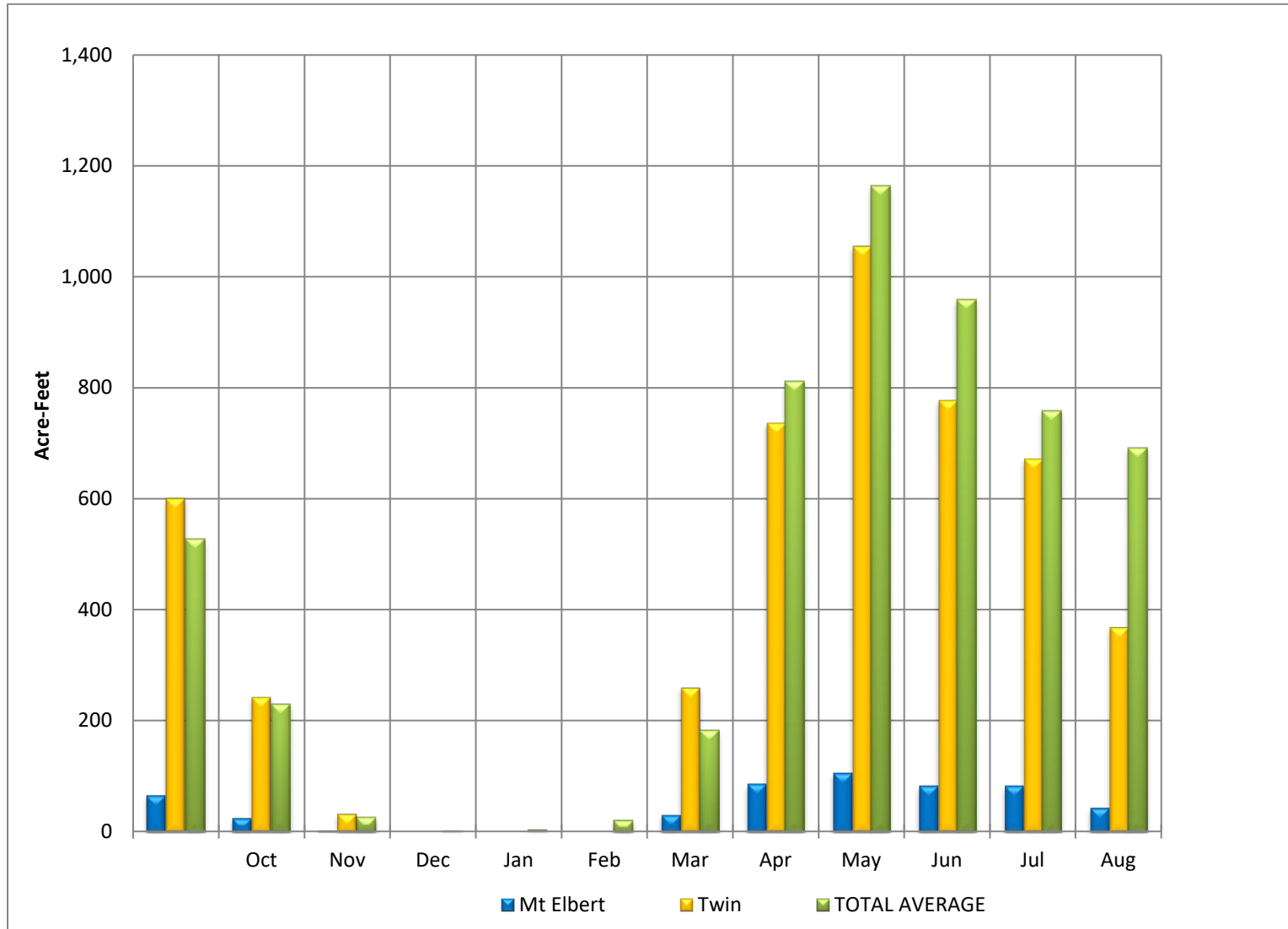


Figure B-18.—Pueblo Dam monthly evaporation WY2025.

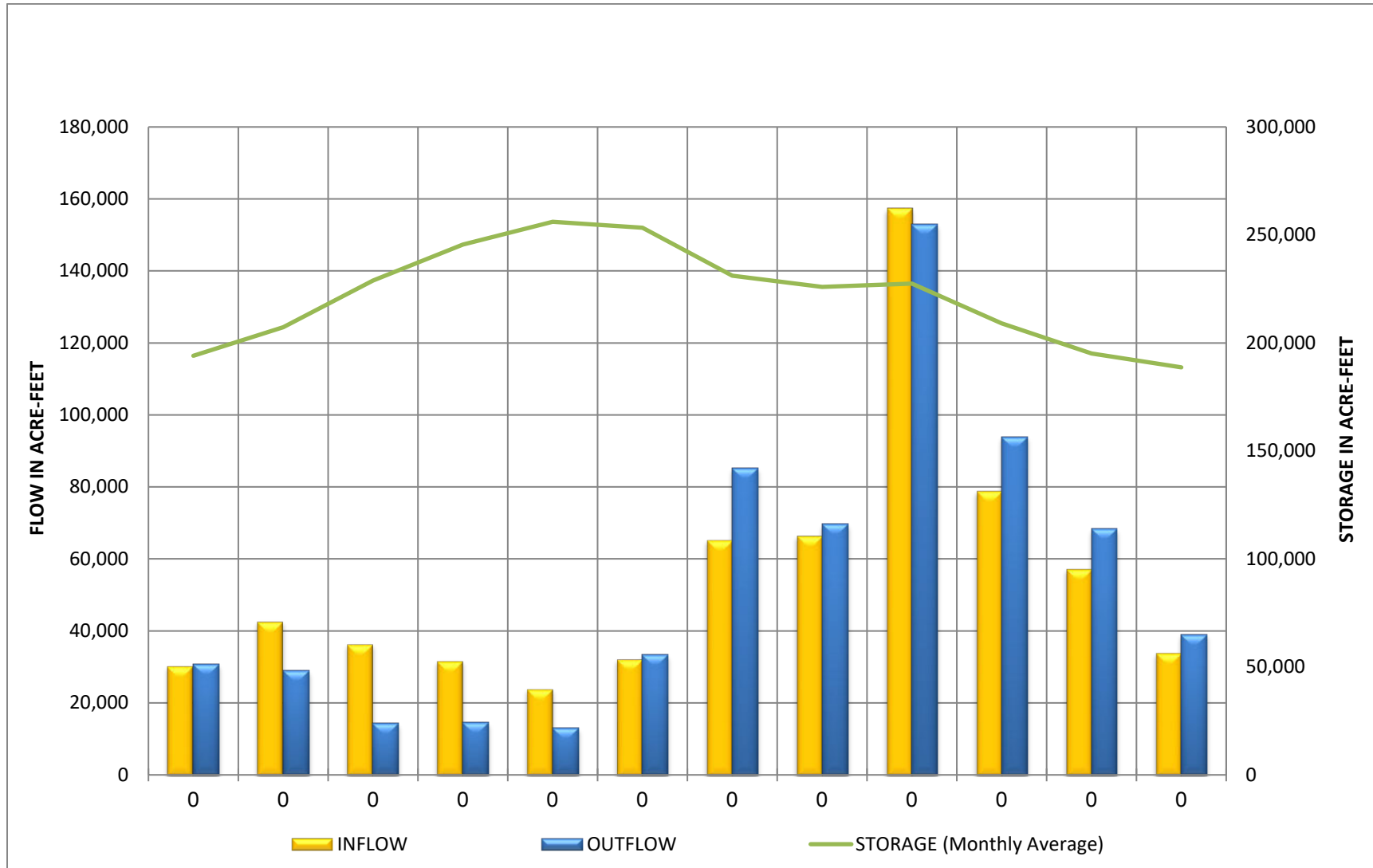


Figure B-19.—Pueblo Reservoir actual operations WY2025.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix B

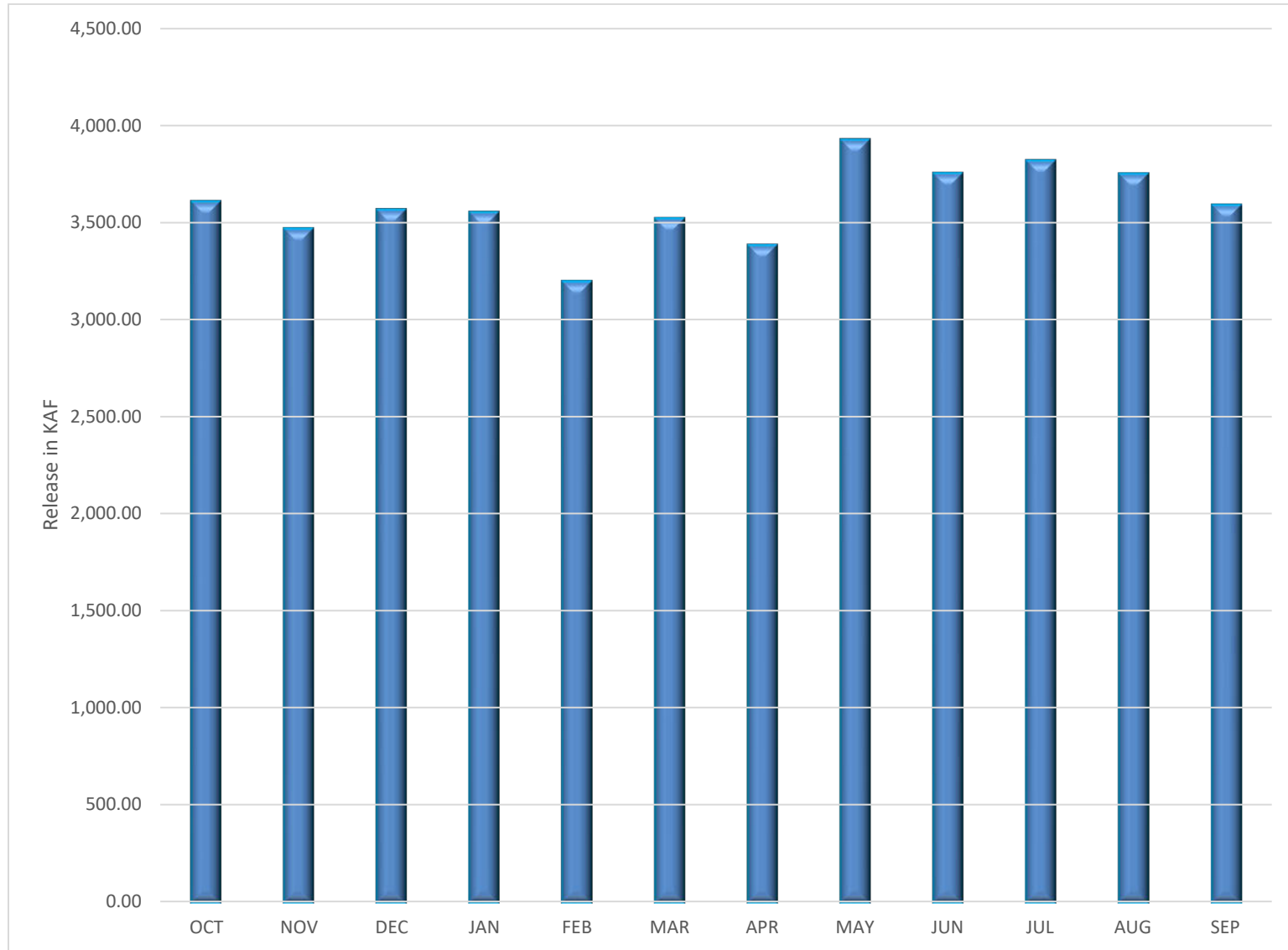


Figure B-20.—Releases of Fryingpan-Arkansas Project Water WY2025.

Appendix C

Twin Lakes Reservoir and Canal Company Exchange with Fryingpan-Arkansas Project Water

Twin Lakes Canal Company Exchange with Fryingpan-Arkansas Project Water WY2025

Table C-1.—Twin Lakes Canal Company Exchanges with Fryingpan-Arkansas Project Water

	Lincoln Creek Below Grizzly Reservoir	Roaring Fork Above Lost Man	Total Exchanged	Twin Lakes Storage (3) x 0.9913 ¹
October 24	0	0	0.0	0.0
November 24	0	0	0.0	0.0
December 24	0	0	0.0	0.0
January 25	0	0	0.0	0.0
February 25	0	0	0.0	0.0
March 25	0	0	0.0	0.0
April 25	0	0	0.0	0.0
May 25	0	0	0.0	0.0
June 25	1,215.7	214.1	1,429.8	1,417.3
July 25	1,381.2	189.3	1,570.5	1,556.8
August 25	0.0	0.0	0.0	0.0
September 25	0.0	0.0	0.0	0.0
Total	2,597	403	3,000	2,974

(Units = acre-feet)

¹ Transit loss from the outlet of Twin Lakes Tunnel to Twin Lakes normally taken on all Twin Lakes Reservoir and Canal Company imported water.

Operating Criteria may prevent 3 KAF from being stored

Please see the discussion in Chapter IV, Paragraph C, for a full discussion of the Twin Lakes Canal Company Exchange in WY2025.

Operating Criteria

1. The water exchange will be implemented October 1 through September 30.
2. The releases to the Roaring Fork River at the Roaring Fork Diversion Dam and Lincoln Creek at the Grizzly Diversion Dam shall be determined by agreement between the State Engineer, the Roaring Fork Conservancy District and Southeastern Colorado Water Conservancy District in consultation with other relevant parties.
3. At any time when the Twin Lakes Reservoir and Canal Company (TLCC) is bypassing water, in addition to that designated above, it will be assumed that the Company could not have diverted that water and will not receive any credit for exchange in excess of the above amounts.
4. In the event less water than the above amounts are bypassed, only the amount actually bypassed will be credited.
5. The total volume of the release at both gages combined shall not exceed 3,000 acre-feet in any one water year.
6. No credit for exchange will be made on days when there is no documentation of such bypasses.
7. No credit will be given for water bypassed when diversions are called out by the State Engineer.

Appendix D

Daily Discharge Records, Fryingpan-Arkansas Project Collection
System

Carter Feeder Conduit near Norrie, CO

Table D-1.—WY2025 daily data for Carter Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		1.6	29.1	42.1		
2		1.0	36.4	51.5		
3		0.7	37.8	33.9		
4		0.9	51.4	26.4		
5		2.4	55.6	21.5		
6		3.3	54.2	18.7		
7		2.0	45.5	17.4		
8		1.2	40.0	15.3		
9		0.7	39.1	14.2		
10		0.6	35.7	12.4		
11		0.3	31.8	12.4		
12		0.3	36.6	12.7		
13		0.5	39.9	12.2		
14		2.7	39.2	11.5		
15		4.4	40.1	10.5		
16		8.2	43.3	11.7		
17		16.3	46.7	9.6		
18		19.8	42.9	8.2		
19		19.7	35.7	6.7		
20		20.4	32.9	5.8		
21		17.2	40.2	5.5		
22		10.3	39.6	2.7		
23		9.0	39.7			
24		8.5	38.2			
25	2.6	6.8	36.9			
26	6.5	5.8	37.1			
27	3.9	7.0	40.3			
28	2.4	14.6	45.7			
29	1.5	22.0	38.6			
30	1.2	27.7	33.8			
31		32.9				
Total	18.2	268.9	1,203.6	362.7		
Average	3	8.7	40.1	16.5		
Max	6.5	32.9	55.6	51.5		

WY2024 Total: 3,676.2 acre-feet

Maximum Instantaneous Peak: 78.1 ft³/s on 05-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

North Fryingpan River Feeder Conduit near Norrie, CO

Table D-2.—WY2024 daily data for North Fryingpan River Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			8.7	11.1		
2			11.0	12.9		
3			12.2	8.5		
4			16.8	6.1		
5			19.8	4.7		
6			22.7	3.6		
7			21.8	2.8		
8			20.1	2.3		
9			20.2	1.9		
10			20.0	1.6		
11			19.5	1.3		
12			19.9	1.1		
13			19.7	0.8		
14			19.7	0.6		
15			19.9	0.5		
16		0.5	19.5	0.7		
17		1.7	19.2	0.5		
18		2.9	17.7	0.3		
19		3.8	15.7	0.1		
20		4.4	15.3			
21		4.4	18.9			
22		3.1	19.7			
23		2.4	17.5			
24		2.2	15.5			
25		1.7	13.9			
26		1.5	12.6			
27		1.7	13.1			
28		3.0	14.9			
29		4.7	12.2			
30		6.7	10.3			
31		8.3				
Total		53	508	61.3		
Average		3.3	16.9	3.2		
Max		8.3	22.7	12.9		

WY2024 Total: 1,234.3 acre-feet

Maximum Instantaneous Peak: 25.6 ft³/s on 06-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

South Fork Fryingpan River Feeder Conduit near Norrie, CO

Table D-3.—WY2024 daily data for South Fork Fryingpan River Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		1.8	85.2	124.5		
2		1.6	101.8	158.1		
3		1.8	104.4	106.4		
4		3.3	127.9	86.2		
5		7.0	137.8	72.6		
6		9.0	143.9	54.8		
7		3.7	149.0	43.9		
8		1.5	149.6	38.9		
9		1.5	139.6	33.9		
10		1.5	150.5	29.9		
11		1.5	156.4	29.1		
12		1.5	161.7	26.7		
13		1.5	172.9	23.2		
14		2.6	168.9	21.4		
15		5.7	157.5	20.3		
16		10.8	171.0	20.8		
17		19.4	104.8	16.7		
18		26.9	89.1	14.4		
19		34.4	143.8	13.4		
20		43.6	159.8	11.7		
21		42.4	190.8	10.3		
22		28.0	187.7			
23		24.0	152.6			
24	2.3	23.3	149.7			
25	6.8	22.0	136.8			
26	8.5	21.2	117.0			
27	7.2	23.4	115.9			
28	4.6	40.0	133.5			
29	3.1	58.1	108.9			
30	2.1	76.0	102.8			
31		82.0				
Total	34.7	621	4,171.3	957		
Average	5	20	139	45.6		
Max	8.5	82	190.8	158.1		

WY2024 Total: 11,472.6 acre-feet

Maximum Instantaneous Peak: 228.2 ft³/s on 22-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Mormon Creek Feeder Conduit near Norrie, CO

Table D-4.—WY2024 daily data for Mormon Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		2.0	32.8	30.4		
2		1.8	40.9	34.3		
3		1.8	40.5	19.8		
4		2.1	50.2	14.9		
5		3.0	53.7	11.8		
6		3.5	57.0	9.3		
7		2.8	54.7	7.6		
8		2.3	49.6	6.2		
9		1.9	46.5	5.0		
10		1.8	47.9	4.1		
11		1.8	56.6	3.5		
12		1.6	51.7	2.9		
13		1.8	49.0	2.5		
14		3.0	49.0	2.2		
15		4.8	49.5	1.9		
16		7.7	50.8	2.1		
17		11.8	50.2	1.4		
18		18.4	42.9	0.9		
19		20.4	35.6	0.7		
20		22.9	43.6	0.4		
21		19.9	53.1	0.1		
22		12.2	54.3			
23		11.0	43.8			
24	2.0	10.6	37.6			
25	7.6	9.2	34.5			
26	4.6	8.4	30.7			
27	3.4	10.9	32.4			
28	2.8	19.3	32.7			
29	2.3	25.7	25.2			
30	2.0	30.0	22.4			
31		32.2				
Total	24.7	306.4	1,319.5	162.2		
Average	3.5	9.9	44	7.7		
Max	7.6	32.2	57	34.3		

WY2024 Total: 3,595.9 acre-feet

Maximum Instantaneous Peak: 64.3 ft³/s on 11-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

North Cunningham Feeder Conduit near Norrie, CO

Table D-5.—WY2024 daily data for North Cunningham Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		0.3	19.0	16.3		
2		0.1	23.5	17.1		
3		0.1	22.4	9.4		
4		0.2	26.0	6.3		
5		0.9	27.2	4.7		
6		1.3	28.3	3.6		
7		0.8	24.5	2.9		
8		0.4	19.7	2.5		
9		0.1	20.7	2.0		
10		0.1	26.9	1.6		
11		0.2	27.3	1.4		
12		0.0	20.5	1.0		
13		0.2	21.5	0.8		
14		1.4	24.0	0.4		
15		2.9	21.3	0.4		
16		4.1	23.5	0.2		
17		3.5	25.7	0.2		
18		2.9	22.9	0.1		
19		6.9	19.1			
20		13.6	23.5			
21		11.3	27.0			
22		6.3	27.6			
23		5.6	23.2			
24	1.3	5.2	22.1			
25	3.7	4.4	20.1			
26	2.4	4.3	17.6			
27	1.5	7.6	17.7			
28	1.0	13.1	17.7			
29	0.6	15.9	13.7			
30	0.3	17.8	12.1			
31		18.5				
Total	10.7	150	666.5	70.8		
Average	1.5	4.8	22.2	3.9		
Max	3.7	18.5	28.3	17.1		

WY2024 Total: 1,781.1 acre-feet

Maximum Instantaneous Peak: 36.9 ft³/s on 07-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Middle Cunningham Feeder Conduit near Norrie, CO

Table D-6.—WY2024 daily data for Middle Cunningham Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			20.3	19.4		
2			25.5	21.4		
3			26.6	13.6		
4			32.8	10.5		
5			38.2	8.5		
6			38.6	7.2		
7			39.0	6.3		
8			38.9	5.5		
9			32.4	4.7		
10			29.0	4.1		
11			31.7	3.6		
12			35.7	3.1		
13			39.3	2.6		
14			39.3	2.3		
15		0.2	37.8	2.1		
16		0.7	37.2	1.9		
17		2.0	37.2	1.5		
18		3.7	34.7	1.1		
19		5.4	29.9	0.9		
20		7.6	32.7	0.6		
21		7.9	38.6	0.5		
22		4.9	38.7	0.3		
23		4.1	33.5			
24		4.1	30.6			
25		3.7	28.3			
26		3.5	25.2			
27		5.0	23.7			
28		9.3	22.3			
29		13.9	18.0			
30		18.0	15.9			
31		19.3				
Total		113.4	951.7	121.7		
Average		6.7	31.7	5.5		
Max		19.3	39.3	21.4		

WY2024 Total: 2,354 acre-feet

Maximum Instantaneous Peak: 58.5 ft³/s on 21-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Ivanhoe Creek Feeder Conduit near Norrie, CO

Table D-7.—WY2024 daily data for Ivanhoe Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		4.2	39.2	68.7		
2		3.3	46.7	73.9		
3		2.9	47.1	44.4		
4		3.1	63.9	16.0		
5		4.3	73.4	7.1		
6		5.0	100.6	5.5		
7		2.6	108.9	4.4		
8		1.2	112.3	19.1		
9		1.2	106.8	54.9		
10		1.2	116.9	53.5		
11		1.2	132.1	57.7		
12		1.2	126.9	50.6		
13		2.0	120.5	56.2		
14		4.5	120.4	61.6		
15		6.3	122.1	65.3		
16		8.2	126.4	60.4		
17		11.9	122.6	61.3		
18		15.0	113.4	64.2		
19		18.5	103.6	60.7		
20		24.4	103.7	58.4		
21		22.5	112.6	60.0		
22		13.3	114.9	56.9		
23		13.0	102.4			
24	2.3	12.7	95.3			
25	6.6	10.1	84.9			
26	6.3	9.2	45.4			
27	6.4	12.3	39.3			
28	6.3	21.2	82.9			
29	5.4	28.7	74.8			
30	4.8	37.4	68.0			
31		38.5				
Total	38.2	341.1	2,827.9	1,060.8		
Average	5.5	11	94.3	48.2		
Max	6.6	38.5	132.1	73.9		

WY2024 Total: 8,465.6 acre-feet

Maximum Instantaneous Peak: 146.7 ft³/s on 11-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Includes 450 acre-feet Ivanhoe Lake releases conveyed through the Boustead Tunnel

Lily Pad Creek Feeder Conduit near Norrie, CO

Table D-8.—WY2024 daily data for Lily Pad Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		4.1	8.9	2.1		
2		4.1	9.0	3.4		
3		4.1	8.7	0.9		
4		4.0	8.7	0.3		
5		4.3	7.5	0.1		
6		4.6	7.6	0.1		
7		4.4	19.3	0.1		
8		4.4	19.3	0.1		
9		4.4	18.8	0.8		
10		4.2	18.7	1.4		
11		4.0	15.6	1.2		
12		3.8	14.9	1.1		
13		3.9	14.8	0.9		
14		4.1	10.7	0.9		
15		4.5	9.0	1.1		
16		5.3	9.8	1.3		
17		6.2	8.0	1.0		
18		7.2	6.4	0.8		
19		8.5	4.4	0.7		
20		10.0	4.7	0.7		
21		10.3	6.2	0.6		
22		9.2	6.4	0.6		
23		8.9	3.7	0.5		
24		8.8	3.3	0.5		
25		8.5	2.9	0.5		
26	1.4	8.3	2.7	0.5		
27	2.7	6.9	2.6	0.8		
28	4.5	6.1	2.5	0.5		
29	4.1	7.7	1.4			
30	4.1	8.4	1.1			
31		9.3				
Total	16.7	192.1	257.8	23.5		
Average	3.3	6.2	8.6	.8		
Max	4.5	10.3	19.3	3.4		

WY2024 Total: 972 acre-feet

Maximum Instantaneous Peak: 22.4 ft³/s on 13-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Granite Creek Feeder Conduit near Norrie, CO

Table D-9.—WY2024 daily data for Granite Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			18.1	19.0		
2			21.3	23.0		
3			22.8	15.3		
4			27.2	12.8		
5			30.4	11.2		
6		0.7	32.5	10.1		
7		0.7	36.4	9.2		
8		0.7	39.4	8.4		
9		0.7	39.4	7.7		
10		0.7	38.4	7.1		
11		0.7	37.6	6.9		
12		0.7	37.7	6.6		
13		0.7	37.8	6.1		
14		0.7	35.8	5.9		
15		0.8	32.5	5.8		
16		1.3	33.3	6.1		
17		2.0	33.0	5.1		
18		3.1	30.0	4.7		
19		4.1	27.4	4.8		
20		5.2	27.9	4.3		
21		5.4	31.2	4.1		
22		3.9	31.0	3.8		
23		3.7	25.7	3.5		
24		3.8	23.9	3.3		
25		3.7	22.1	3.2		
26		3.6	21.2	3.2		
27		4.6	21.0	4.5		
28		8.0	20.5	3.3		
29		11.4	17.7			
30		15.2	16.6			
31		16.9				
Total		102.9	870	209		
Average		4	29	7.5		
Max		16.9	39.4	23		

WY2024 Total: 2,344.3 acre-feet

Maximum Instantaneous Peak: 44.2 ft³/s on 08-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

No Name Creek Feeder Conduit near Norrie, CO

Table D-10.—WY2024 daily data for No Name Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			31.6			
2			41.0	28.7		
3			39.7	12.0		
4			46.3	7.7		
5			34.6	5.3		
6			30.8	3.8		
7			38.2	2.6		
8			40.1	1.7		
9			40.1			
10			47.9			
11			37.5			
12						
13						
14						
15						
16						
17		1.4				
18		4.0				
19		6.4				
20		10.5				
21		9.0				
22		4.1				
23		3.5				
24		3.8				
25		3.8				
26		3.8				
27		7.1				
28		14.9				
29		21.5				
30		28.7				
31		30.2				
Total		152.7	427.7	61.7		
Average		10.2	38.9	8.8		
Max		30.2	47.9	28.7		

WY2024 Total: 1,273.7 acre-feet

Maximum Instantaneous Peak: 122.5 ft³/s on 12-JUL-24

Blank: Recorder not operated. No water diverted because of TLCC exchange

M: Missing Data

Midway Creek Feeder Conduit near Norrie, CO

Table D-11.—WY2024 daily data for Midway Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			45.1			
2			57.2	69.4		
3			59.1	44.7		
4			65.9	34.2		
5			60.6	26.9		
6			31.0	23.0		
7			29.2	20.0		
8			45.8	17.4		
9			44.8	14.6		
10			60.6	12.4		
11			75.8	11.3		
12			27.4	10.4		
13			0.1	9.2		
14				8.3		
15		1.1		8.0		
16		3.0		7.9		
17		6.6		5.9		
18		10.2		4.9		
19		15.2		4.4		
20		20.6		3.4		
21		17.0		2.6		
22		8.9		1.9		
23		8.1				
24		7.5				
25		6.7				
26		6.8				
27		11.3				
28		19.2				
29		28.2				
30		37.6				
31		39.7				
Total		247.7	602.6	341		
Average		14.6	37.7	16.2		
Max		39.7	75.8	69.4		

WY2024 Total: 2,362.8 acre-feet

Maximum Instantaneous Peak: 84.1 ft³/s on 10-JUN-24

Blank: Recorder not operated. No water diverted for imports because of TLCC exchange

M: Missing Data

Hunter Creek Feeder Conduit near Norrie, CO

Table D-12.—WY2024 daily data for Hunter Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1			49.6	74.8		
2			63.0	90.5		
3			63.3	54.8		
4			71.2	40.9		
5			70.5	32.2		
6			76.5	27.5		
7			76.2	23.6		
8			74.3	19.9		
9			46.1	14.2		
10			30.1	11.5		
11			54.7	11.3		
12			84.4	9.4		
13			91.9	7.2		
14			84.7	7.1		
15			84.3	6.6		
16			88.3	7.4		
17		4.8	84.4	3.6		
18		11.1	84.1			
19		17.0	81.2			
20		24.4	87.6			
21		19.6	97.8			
22		5.5	96.6			
23		4.6	83.9			
24		3.5	82.6			
25		1.5	79.6			
26		0.7	73.7			
27		7.5	73.0			
28		22.4	76.2			
29		35.7	67.9			
30		48.0	69.1			
31		46.5				
Total		252.9	2,246.7	442.4		
Average		16.9	74.9	26		
Max		48	97.8	90.5		

WY2024 Total: 5,835.3 acre-feet

Maximum Instantaneous Peak: 117.8 ft³/s on 12-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Sawyer Creek Feeder Conduit near Norrie, CO

Table D-13.—WY2024 daily data for Sawyer Creek Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		1.1	15.2	20.5		
2		1.1	19.4	22.6		
3		1.0	21.2	17.6		
4		1.1	25.6	14.4		
5		1.3	26.8	12.4		
6		1.4	27.1	11.0		
7		1.4	23.8	9.8		
8		1.3	23.5	9.0		
9		1.0	22.6	8.3		
10		1.0	22.8	7.5		
11		0.9	23.4	7.0		
12		1.0	23.7	3.4		
13		1.0	22.8			
14		1.1	30.1			
15		1.4	35.3			
16		1.7	36.9			
17		2.4	37.2			
18		3.2	34.6			
19		3.8	31.1			
20		4.9	31.5			
21		5.2	36.8			
22		4.6	35.1			
23		4.5	29.8			
24	1.4	4.4	26.6			
25	1.4	4.2	25.6			
26	1.2	4.0	23.8			
27	1.1	4.5	22.8			
28	1.2	6.1	23.1			
29	1.1	8.1	20.8			
30	1.0	10.7	18.6			
31		12.9				
Total	8.3	102.1	797.8	143.5		
Average	1.2	3.3	26.6	12		
Max	1.4	12.9	37.2	22.6		

WY2024 Total: 2,086 acre-feet

Maximum Instantaneous Peak: 45.6 ft³/s on 21-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Chapman Gulch Feeder Conduit near Norrie, CO

Table D-14.—WY2024 daily data for Chapman Gulch Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		1.3	187.4	208.6		
2		1.3	242.8	283.7		
3		1.3	250.8	189.4		
4		1.7	286.7	146.0		
5		2.8	281.4	119.3		
6		4.4	264.8	103.1		
7		1.9	270.4	91.9		
8		1.3	289.1	81.0		
9		1.3	265.6	69.7		
10		1.3	240.9	61.8		
11		1.3	275.8	50.4		
12		1.3	270.9	37.9		
13		1.3	240.8	28.7		
14		1.6	225.4	27.5		
15		4.9	214.6	25.7		
16		10.0	217.8	28.2		
17		24.4	226.1	17.7		
18		44.1	210.5	12.2		
19		62.0	199.7	8.5		
20		85.6	209.7	5.7		
21		82.0	232.6	4.8		
22		41.4	237.0			
23		35.8	203.2			
24		34.5	197.8			
25	8.1	30.3	187.8			
26	8.3	28.3	167.4			
27	2.4	42.7	171.2			
28	1.6	88.3	181.8			
29	1.3	128.9	152.4			
30	1.3	171.5	141.9			
31		183.4				
Total	22.8	1,121.9	6,743.9	1,601.6		
Average	3.8	36.2	224.8	76.3		
Max	8.3	183.4	289.1	283.7		

WY2024 Total: 18,823.9 acre-feet

Maximum Instantaneous Peak: 315 ft³/s on 02-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Fryingpan River Feeder Conduit near Norrie, CO

Table D-15.—WY2024 daily data for Fryingpan River Feeder Conduit near Norrie, CO (units: cubic feet per second, source: Bureau of Reclamation)

Day	April	May	June	July	August	September
1		0.0	106.0	162.8		
2		0.0	126.1	194.4		
3		0.0	131.4	140.7		
4		1.4	163.5	114.7		
5		4.4	187.4	98.7		
6		4.8	209.6	87.1		
7		0.7	229.7	79.7		
8		0.0	242.2	72.6		
9		0.0	236.9	63.8		
10		0.0	231.5	55.4		
11		0.0	235.1	46.0		
12		0.0	241.4	34.2		
13		0.0	243.7	20.0		
14		0.6	232.4	16.3		
15		3.1	211.1	14.3		
16		7.2	213.8	14.5		
17		15.8	219.5	7.8		
18		25.4	200.0	4.8		
19		37.4	180.1	2.6		
20		54.6	190.7	0.9		
21		49.5	234.4			
22		30.9	234.8			
23		26.4	194.6			
24		25.8	188.6			
25	4.9	25.4	181.0			
26	3.3	23.4	149.9			
27	0.7	27.9	132.3			
28	0.0	48.8	138.9			
29	0.0	71.9	119.4			
30	0.0	93.3	127.6			
31		101.9				
Total	8.8	680.6	5,733.7	1,231.4		
Average	1.5	22	191.1	61.6		
Max	4.9	101.9	243.7	194.4		

WY2024 Total: 15,182.7 acre-feet

Maximum Instantaneous Peak: 296.5 ft³/s on 22-JUN-24

Blank: Recorder not operated. No water diverted

M: Missing Data

Appendix E

Fryingpan-Arkansas Project Operating Principles

87th Congress, 1st Session ----- House Document No. 130

I

OPERATING PRINCIPLES

FRYINGPAN-ARKANSAS PROJECT

ADOPTED BY THE STATE OF COLORADO

APRIL 30, 1959

(As amended December 30, 1959,
and December 9, 1960)

MARCH 15, 1961--- Ordered to be printed

U. S. GOVERNMENT PRINTING OFFICE

WASHINGTON: 1961

H. RES. 91

In the House of Representatives, U. S.,

March 15, 1961.

Resolved, That there be printed as a House document the publication entitled “Operating Principles, Fryingpan-Arkansas Project, Adopted by the State of Colorado, April 30, 1959 (as amended December 30, 1959, and December 9, 1960)”, and that there be printed for the use of the Committee on Interior and Insular Affairs one thousand additional copies.

Attest:

Ralph R. Roberts, Clerk.

OPERATING PRINCIPLES, FRYINGPAN-ARKANSAS PROJECT

ADOPTED BY THE STATE OF COLORADO, APRIL 30, 1959

(As Amended December 30, 1959, and December 9, 1960)

The construction and operation of the project involve the diversion of water from the headwaters of the Fryingpan River and other tributaries of the Roaring Fork River to the Arkansas River Basin. The project contemplates—

- (a) The maximum conservation and use of water;
- (b) The protection of western Colorado water uses, both existing and potential, in accordance with the declared policy of the State of Colorado; and
- (c) The preservation of recreational values.

In order to accomplish such purposes, the project shall be operated by the United States in compliance with the Federal reclamation laws, the laws of the State of Colorado relating to the appropriation, use, or distribution of water, and the following operating principles:

1. As used herein:

- (a) “Project” means that certain enterprise planned and designed by the Bureau of Reclamation, Department of the Interior, for the transmountain diversion of water from the headwaters of the Fryingpan River and other tributaries of the Roaring Fork River to the basin of the Arkansas River, together with all of its appurtenant works and facilities in both eastern and western Colorado.
- (b) “Eastern Colorado” means that portion of the State of Colorado lying within the natural drainage basin of the Arkansas River.
- (c) “Western Colorado” means that portion of the State of Colorado lying within the natural drainage basin of the Colorado River and served by diversions made from the Colorado River, or its tributaries, above its confluence with the Gunnison River.
- (d) “Southeastern Colorado Water Conservancy District” means that entity created to contract for payment to the United States of an appropriate portion of project cost allocated to certain water uses in eastern Colorado.
- (e) “Colorado River Water Conservation District” means that entity created by Colorado Revised Statutes 1953, 149-8, as amended.
- (f) “Southwestern Water Conservation District” means that entity created by Colorado Revised Statutes 1953, 149-9, as amended.
- (g) “Ruedi Reservoir” means the reservoir presently planned for construction on the Fryingpan River above the town of Basalt as part of the project.
- (h) “Ashcroft Reservoir” means not only the reservoir contemplated for construction on Castle Creek, a tributary of the Roaring Fork River, but also, unless the context requires otherwise, any other reservoir that may be constructed in the Roaring Fork basin above the town of Aspen in lieu of that reservoir.
- (i) “cfs” means cubic feet of water per second of time.

2. The Ruedi Reservoir shall be constructed and maintained on the Fryingpan River above the town of Basalt with an active capacity of not less than 100,000 acre-feet. In addition thereto and in order to offset adverse streamflow conditions on the Roaring Fork River above the town of Aspen which might occur as a result of the project enlargement of the Twin Lakes Reservoir, the Ashcroft Reservoir on Castle Creek, or some reservoir in lieu thereof, shall be constructed on the Roaring Fork drainage above Aspen to a capacity of approximately 5,000 acre-feet: Providing, however, that the Ashcroft Reservoir shall be constructed only if the Secretary of the Interior after appropriate study shall determine that its benefits exceed the costs: And providing further, that no part of the construction, operation, or maintenance of said Ashcroft Reservoir shall be chargeable to the Fryingpan-Arkansas project. All of such stored water shall be released under the conditions and limitations hereinafter set forth.

3. The receipts from the sale of water from Ruedi Reservoir, as permitted in paragraph 6(b) hereof, shall be applied solely to the operation and maintenance costs and to those reimbursable construction costs of said reservoir which exceed \$7,600,000. The cost of perpetual operation and maintenance of the Ruedi Reservoir shall be borne by users of project water and users of water stored in Ruedi Reservoir in such proportion as may be determined by the Secretary of the Interior.
4. The inclusion of the Ruedi Reservoir in the project shall not preclude the construction of any other replacement or regulatory reservoirs on the Colorado River or its tributaries above Cameo gaging station.
5. The Ruedi Reservoir shall be completed and in operation before any water is diverted to eastern Colorado by means of the project.
6.
 - (a) The replacement capacity of Ruedi Reservoir, and any reservoir constructed in addition thereto, is that portion of the total reservoir capacity required to permit project diversions at times when such diversions could not otherwise be made because of simultaneous demands of senior diversions in western Colorado existing at the time of the adoption of these operating principles, and shall be so operated to accomplish this purpose. Water stored in such capacity shall be released by the United States, upon the request of the Colorado State engineer, to the extent that water would have been available to said decreed rights except for stream depletion resulting from diversions by this project to the Arkansas Valley.
 - (b) The regulatory capacity of Ruedi Reservoir, and any reservoir constructed in addition thereto, is that portion of the total reservoir capacity not needed for replacement purposes. Water stored in such category may be sold or leased by the United States to water users in Colorado for any purpose recognized by the laws of the United States: Provided, That the sale of water for use outside the natural basin of the Colorado River can only be made with the consent of the Colorado River Water Conservation District. Charges for the use of such water shall be established by the Secretary of the Interior by appropriate contract in accordance with the payment ability of such water users.
7. The primary purpose of Ruedi Reservoir, and any reservoir constructed in addition thereto, is to furnish, to the extent of its capacity, in like manner as if the project were constructed by a water conservancy district organized pursuant to the laws of the State of Colorado, the water required for the protection of western Colorado water users by the provisions of Colorado Revised Statutes 1953, 149-6-13, reading as follows:

However, any works or facilities planned and designed for the exportation of water from the natural basin of the Colorado River and its tributaries in Colorado, by any

district created under this article, shall be subject to the provisions of the Colorado River Compact and the Boulder Canyon Project Act. Any such works or facilities shall be designed, constructed and operated in such a manner that the present appropriations of water, and in addition thereto prospective uses of water for irrigation and other beneficial consumptive use purposes, including consumptive uses for domestic, mining, and industrial purposes, within the natural basin of the Colorado River in the State of Colorado, from which water is exported, will not be impaired nor increased in cost at the expense of the water users within the natural basin. The facilities and other means for the accomplishment of said purpose shall be incorporated in, and made a part of any project plans for the exportation of water from said natural basin in Colorado.

8. Project diversions from Lime Creek shall be made only in the months of May and June of each year, unless the Colorado River Water Conservation District shall, by written communication, advise the Colorado State engineer that additional diversions can be made.
9. The respective decrees which may be or have been awarded to the parties hereto as a part of the Fryingpan-Arkansas project and Basalt project shall be administered by the proper officials of the State of Colorado, in accordance with the applicable laws of the State of Colorado, and with the following principles and procedures, to wit:
 - (1) That the demand on the waters available under such decrees shall be allocated in the following sequence:
 - (a) For diversion to the Arkansas Valley through the collection system and the facilities of the Fryingpan-Arkansas project in an amount not exceeding an aggregate of 120,000 acre-feet of water in any year, but not to exceed a total aggregate of 2,352,800 acre-feet in any period of 34 consecutive years reckoned in continuing progressive series starting with the first full year of diversions, both limitations herein being exclusive of Roaring Fork exchanges as provided in (c) below, and exclusive of diversions for the Busk-Ivanhoe decree; and with the further and absolute limitation that in order to protect existing and future beneficial uses of water in Western Colorado, including recreational and fishing values, the State engineer shall so regulate the transmountain diversions above referred to, to the end that no diversions shall be made which will reduce the remaining aggregate stream flows to less than either of the following minimum standards:
 - (i) The Fryingpan collection system at the points of diversion collectively, exclusive of Lime Creek: 15 cfs October 1 through March 31; 30 cfs April 1 through September 30.

- (ii) Near Norrie (immediately below the junction of North Fork and Fryingpan River): 30 cfs October 1 through March 31; 100 cfs April 1 through April 30; 150 cfs May 1 through May 31; 200 cfs June 1 through June 30; 100 cfs July 1 through July 31; 75 cfs August 1 through August 31; 65 cfs September 1 through September 30.

In maintaining the above minimum standards, the project diversions shall be regulated, so far as is practicable, in such a manner that the North Fork of the Fryingpan River, the Fryingpan River, and each of the tributaries of those streams, shall contribute to the residual stream flows required by those minimum standards quantities of water in proportion to their natural contributions.

- (b) For storage in Ruedi Reservoir to the extent of its actual capacity, which is to be not less than 100,000 acre-feet.
 - (c) For 3,000 acre-feet annually, to the extent that it is available in excess of (a) and (b) above, or such part thereof as may be required, to be delivered to the Twin Lakes Reservoir and Canal Company in exchange for equivalent releases from the headwaters of the Roaring Fork River which would otherwise be diverted through such Twin Lakes Reservoir and Canal Company collection and diversion system.
 - (d) For any other beneficial use in western Colorado in accordance with court decree, but not herein contemplated.
- (2) The effectuation of the above principles requires concurrent Fryingpan-Arkansas project diversion and Ruedi Reservoir storage to be accomplished in the manner following: The State engineer annually shall collect pertinent data, including information pertaining to snowpack and all other available evidence, and shall thereafter so divide and apportion the surface runoff as to achieve, as nearly as possible, the foregoing division of water and the maximum of concurrent diversions and storage. The diversions herein contemplated shall be on the basis of a water year hereby defined as that interim of October 1 through the following September 30.
10. For the protection of recreational values, including fishing, on the Fryingpan River below Ruedi Reservoir, releases of water from said reservoir, not to exceed the stream inflow, shall be made so that the streamflow immediately below the junction of the Fryingpan River and Rocky Fork shall not be reduced below 39 cfs from November 1 to April 30, and 110 cfs from May 1 to October 30, or as actual experience or court decree hereafter dictate.

11. An appropriate written contract may be made whereby Twin Lakes Reservoir and Canal Company shall refrain from diverting water whenever the natural flow of the Roaring Fork River and its tributaries shall be only sufficient to maintain a flow equal to or less than that required to maintain the recommended average flows in the Roaring Fork River immediately above its confluence with Difficult Creek in a quantity proportionate to the respective natural flow of the Roaring Fork River. The recommended average flows above mentioned are flows in quantities equal to those recommended as a minimum immediately above its confluence with Difficult Creek according to the following schedule submitted by the United States Fish and Wildlife Service and the Colorado Game and Fish Commission:

Month	Average feet Second-feet	Acre-feet (thousands)	Month	Average Second-feet	Acre- (thousands)
October	44	2.7	May	100	6.2
November	35	2.1	June	120	7.1
December	29	1.8	July	100	6.2
January	26	1.6	August	63	3.9
February	25	1.4	September	44	<u>2.6</u>
March	24	1.5			
April	64	3.8	Total		40.9

In maintaining the above averages, at no time shall the flow be reduced below 15 cfs during the months of August to April, inclusive, or below 60 cfs during the months of May to July, inclusive, providing the natural flow during said period is not less than these amounts. The obligation to supply the minimum streamflow as set forth in the above table on the Roaring Fork River shall, to the extent of 3,000 acre-feet annually, be a project obligation to be supplied from any waters diverted from the south tributaries of Hunter Creek, Lime Creek, Last Chance Creek, or any of them.

The Twin Lakes Reservoir and Canal Company shall not be required to refrain from diverting water under its existing decrees from the Roaring Fork River except to the extent that a like quantity of replacement water is furnished to said company without charge therefore through and by means of project diversions and storage.

If by reason of storage capacity in the Ruedi Reservoir, or any reservoir constructed in addition thereto, the Twin Lakes Reservoir and Canal Company derives additional water or other benefits or advantages it would not have realized had this project not been constructed, then nothing herein contained shall prevent the project from making appropriate charges for such water or other benefits or advantages. All revenues derived from the use of water stored in Ashcroft Reservoir shall be used to assist in the repayment of the construction, operation, and maintenance costs of that reservoir, or any reservoir constructed in lieu thereof, as may be determined by the Secretary of the Interior.

12. All lands acquired and held for project construction and operation and water surfaces of project reservoirs will be open to the public for recreational purposes, excepting those areas reserved by the operating agency.
13. The project will be operated in such a manner that those in eastern Colorado using project water imported from the Colorado River Basin for domestic purposes shall have preference over those claiming or using water for any other purpose.
14. The project is to be operated in such a manner as to secure the greatest benefit from the use and reuse of imported project waters within project boundaries in the State of Colorado
15. Any and all benefits and rights of western Colorado water users in and to water stored in Green Mountain Reservoir, as described and defined in Senate Document 80, 75th Congress, 1st session, shall not be impaired or diminished by this project.
16. The project, its operation, maintenance, and use shall be subject to the provisions of the Upper Colorado River Basin Compact of October 11, 1948 (Public Law 37, 81st Congress, 1st session), and the Colorado River Compact of November 24, 1922 (House Document 605, 67th Congress, 4th session).
17. The Colorado River Water Conservation District of the State of Colorado shall acquire title to storage of water in Ruedi Reservoir and any reservoir constructed in addition

- thereto, by appropriate proceedings in the courts of the State of Colorado. The Southeastern Colorado Water Conservancy District of the State of Colorado shall likewise acquire title to the water required by the project for diversion to the Arkansas Valley. The Secretary of the Interior shall at any time after the authorization of the project have the option to obtain or require the transfer to the United States of any and all rights initiated or acquired by appropriation as herein set forth: Provided, however, That the rights so taken shall be subject to a beneficial use of such water as may be provided in the repayment contract or contracts, and subject to all the operating principles herein set forth.
18. No transmountain diversion of water shall ever be made through the collection and diversion system of the Fryingpan-Arkansas Project in excess of the quantitative limitations and conditions established by this document: Provided, however, That when under the laws of the State of Colorado, there may be additional water available for such collection and diversion which is not at the time of diversion required for beneficial use in western Colorado or for filling interstate water compact agreements, then such water may be collected and diverted for beneficial use in the Arkansas Valley: Provided further, That such additional diversion shall only be made with the mutual consent of each of the following agencies of the State of Colorado, to wit: the Colorado Water Conservation Board, the Southwestern Water Conservation District, the Colorado River Water Conservation District, and the Southeastern Colorado Water Conservancy District.
19. To assure project operation in conformity with the operating principle heretofore stated, to provide a means for the collection and interchange of information, and to provide a method for the continued study of project operations to the end that, if the stated operating principles may be improved upon, recommendations for changes may be made to the contracting parties, a commission shall be created in an appropriate manner to be composed of one representative of the Southeastern Colorado Water Conservancy District, one representative of the Colorado River Water Conservation District, two representatives of the United States, and one representative of the State of Colorado appointed by the Colorado Water Conservation Board after consultation with the Colorado Game and Fish Commission. The powers of such commission shall be limited to the collection of data, the making of findings of fact, and the suggestion of changes in operating principles.

These operating principles shall be deemed to have amended and take the place of those operating principles signed and executed on April 30, 1959. These operating principles shall be and do constitute a contract between the signatory parties, and shall inure to the benefit of and shall be and remain binding upon said parties, their respective successors and assigns.

Fryingpan-Arkansas Project
Summary of Annual Operating Plans
Water Year 2025 - Appendix E

Executed as amended at Denver, Colorado, this 9th day of December 1960.

COLORADO WATER CONSERVATION BOARD

Steve McNichols, Chairman;
Governor, State of Colorado

Attest:

Felix L. Sparks,
Director and Secretary

SOUTHEASTERN COLORADO WATER CONSERVANCY

DISTRICT

By J. Selby Young, President

Attest:

J. G. Shoun,
Secretary

COLORADO RIVER WATER CONSERVATION DISTRICT

By A. Allen Brown, President

Attest:

Philip P. Smith,
Secretary

SOUTHWESTERN WATER CONSERVATION DISTRICT

By Ira E. Kelly, President

Attest:

Archie B. Toner,
Secretary

