ANNUAL OPERATING PLAN
FRYINGPAN-ARKANSAS PROJECT
WATER YEAR 2008 OPERATIONS

I. GENERAL

This is the 39th annual operating plan 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 powerplant, 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, 1st Session), and are included in Appendix E.

This annual operating plan is a summary of the actual project operation in water year 2008 (October 1, 2007 through September 30, 2008).

II. PROJECT FEATURES IN OPERATION DURING WATER YEAR 2008

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, Colorado. Ruedi Reservoir has a total capacity of 102,373 acre-feet at a water surface elevation of 7766.0 feet. The reservoir is operated on an annual cycle. Steady winter releases draft the reservoir such that it is filled with the spring snowmelt 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, wildlife habitat, and flood control.

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 5 miles long and has a water conveyance capacity of 945 cubic feet per second (cfs).

Sugarloaf Dam and Turquoise Lake are located on Lake Fork Creek, a tributary of the Arkansas River, about 5 miles west of Leadville, Colorado. The lake has a total capacity of 129,398 acre-feet at a water surface elevation of 9869.4 feet. The lake 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, as is Ruedi Reservoir. 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 Powerplant, and Twin Lakes. The lake 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 cfs. Native water from Halfmoon Creek is also added to the conduit and returned to the Arkansas River from Twin Lakes Dam. All conduit flow which reaches the Mt. Elbert Forebay is used to generate electricity at the Mt. Elbert Powerplant 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, which 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-acre-foot 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, 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, Colorado. Twin Lakes has a capacity of 140,855 acre-feet at a maximum water surface elevation of 9200 feet. 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 the 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, Colorado. The reservoir is the terminal storage facility for the Fryingpan-Arkansas Project and has a total storage capacity of 349,940 acre-feet at a water surface elevation of 4898.7 feet. The upper 26,991 acre-feet of storage space are reserved for flood control at all times, and an additional 66,000 acre-feet of space are reserved from April 15 through November 1. Non-project water may be stored in the reservoir under temporary contract. 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. The majority of project water deliveries is made from the reservoir. The Fountain Valley Authority, the Pueblo West Metropolitan District, and the Pueblo Board of Water Works take direct delivery of municipal water through the south outlet works and joint-use manifold. A direct irrigation delivery is made to the Bessemer Ditch. Other project deliveries are made as releases to the Arkansas River for diversion downstream. Pueblo Reservoir is also operated to provide for recreation and wildlife habitat.

III. HYDROLOGIC CONDITIONS AND MAJOR WEATHER EVENTS — WATER YEAR 2008

Water year 2008 presented an above average winter and spring for the Fryingpan River basin. The water year had above average precipitation throughout the spring. Ruedi Reservoir filled and the collection system diverted approximately 89,960 acre-feet to the east slope.

Precipitation over the area was above normal during the winter months, and inflow to Ruedi remained higher than normal throughout the season. Runoff began late in water year 2008, not beginning until June. Initially most of the runoff came from the lower elevations. Once the snow in the higher elevations began to melt, most of the runoff was captured by the Fryingpan-Arkansas Project west slope collection system.

Melting of the snowpack in the Fryingpan River basin was delayed slightly during the first two weeks of May but greatly increased by the end of the month. Almost half of the peak snow water content was lost during May. Boustead Tunnel imports of project water to the Arkansas Basin were 89,960 acre-feet, 185 percent of average.

The Arkansas River Basin saw well above average snowpack accumulation between December and February. Significant melting during May caused the snowpack to dwindle, and by June, only 31 percent of the peak snowmelt remained.

IV. REPORT ON OPERATIONS DURING WATER YEAR 2008

A. Ruedi Reservoir

Ruedi Reservoir began Water Year 2008 with a content of approximately 86,000 acre-feet, or about 91 percent of average. With the reservoir's below-average content, the winter release rate was initially set to 85 cfs in November. However, the inflow to the reservoir remained well above average throughout the winter, and the release rate was gradually increased throughout the season. By mid-February, the reservoir release had been increased to 165 cfs, where it remained through the end of March. The April runoff forecast indicated an April-July inflow of approximately 150 percent of average. In order to further draw the reservoir down to avoid spilling the reservoir, the reservoir release was increased to approximately 225 cfs at the beginning of April and then to 310 cfs by the last week of April. The 310 cfs release rate was maintained throughout May and into June.

With the well-above average runoff forecast, Ruedi Reservoir participated in the Coordinated Reservoir Operations (CRO) in support of endangered fish species along the 15-Mile Reach of the Colorado River. Between June 4 and June 9, the reservoir release rate was ramped up from 310 cfs to 779 cfs and then was ramped back down to 310 cfs by June 15. Between June 4 and June 15, Ruedi Reservoir released a total of 4,790 acre-feet in support of the CRO operation.

At the conclusion of the CRO operation, Ruedi Reservoir continued to fill, attaining a maximum content of 101,716 acre-feet on July 25, with the water surface level being approximately 0.66 feet below the top of the spillway crest. The reservoir was maintained near this level until releases for the benefit of the endangered fish species in the 15-Mile Reach of the Colorado River began on August 13. Releases for the endangered fish continued through October 15, with a total of 20,423 acre-feet being released for that purpose. By the end of Water Year 2008, Ruedi Reservoir's content had dropped to 81,800 acre-feet or 87 percent of average. Even with the above-average releases for the endangered fish, Ruedi Reservoir's water surface elevation remained high enough to keep the boat ramps (elevation 7747.50 feet) usable throughout the summer.

B. West Slope Collection System and Prolect Diversions

The import of project water through the Boustead Tunnel began on April 14, 2008, and concluded on August 27, 2008. The daily discharge record for the diversion structures is included as Appendix D. A total of 89,960 acre-feet was imported during the 2008 water year, which is 186 percent of average. There was no Busk-Ivanhoe water imported through the Boustead Tunnel. The maximum mean daily import was 945 cfs on June 26, 2008. The most probable forecasts for the first of February, March, April, and May were 86,700 acre-feet, 90,500 acre-feet, 109,200 acre-feet, and 100,600 acre-feet, respectively.

The total imports for the water year; the accumulated imports to the Arkansas River; the water used for the Twin Lakes Reservoir and Canal Company exchange; and the import water available for allocations by the Southeastern Colorado Water Conservancy District, are shown on Table 4. The 37 years of accumulated imports total 1,843,000 acre-feet, for an average of 49,811 acre-feet per year. A plot of the Boustead Tunnel imports during water year 2008 is shown on Exhibit 5.

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 the authorizing legislation of the project. This is accomplished through an exchange of water with the Twin Lakes Reservoir and Canal Company. On October 1, 2007, the company began bypassing water into the Roaring Fork River on the west slope in exchange for project water stored in Twin Lakes on the east slope. The total amount of the exchange at Twin Lakes Reservoir was 2,989 acre-feet. The operating criteria and the monthly summary of the exchange are shown in Appendix C.

D. Turquoise Lake

On September 30, 2007, there were 123,626 acre-feet of water (elevation of 9866.15 feet) stored in Turquoise Lake, 140 percent of average. Releases made to Twin Lakes through the Mt. Elbert Conduit drafted Turquoise Lake to 39,636 acre-feet (elevation 9810.11 feet), the lowest storage of the water year, by May 15, 2008. There were 105,213 acre-feet of water (elevation 9855.47 feet) in storage at the end of the water year, 119 percent of average.

Homestake Tunnel imports totaled 26,461 acre-feet during the water year, 152 percent of average. Busk-Ivanhoe imports totaled 4,841 acre-feet, 93 percent of average, and were divided between the Pueblo Board of Water Works and the City of Aurora. Project water imports through the Boustead Tunnel totaled 89,960 acre-feet, 185 percent of average.

Exhibits 8 and 9 show the precipitation and pan evaporation at Turquoise Lake. Exhibits 5, 6, and 7 show the monthly imports through the Boustead, Homestake, and Busk-Ivanhoe Tunnels, respectively. Table 5 and Exhibit 10 depict the monthly operation of Turquoise Lake during the 2008 water year.

E. Mt. Elbert Conduit/Halfmoon Creek Diversion

During water year 2008, 168,446 acre-feet of water released from Turquoise Lake, and 6,294 acre-feet of water diverted from Halfmoon Creek, were conveyed through the Mt. Elbert Conduit to the Mt. Elbert Forebay, and subsequently to Twin Lakes through the

Mt. Elbert Powerplant. An additional 3,768 acre-feet of water were released into the conduit from Turquoise Lake for use by the Leadville Federal Fish Hatchery. The water delivered to the hatchery was returned to the Arkansas River and stored in Pueblo Reservoir.

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

The storage in Twin Lakes was 127,162 acre-feet of water (elevation 9194.84 feet) on September 30, 2007. The combined storage of Twin Lakes and the Mt. Elbert Forebay was 134,507 acre-feet. Twin Lakes Reservoir releases to Lake Creek were made throughout the winter to pass the entire flow of the Mt. Elbert Conduit, and to transfer the project water stored in the reservoir to Pueblo Reservoir. The native inflow was stored in the Twin Lakes Reservoir and Canal Company storage space from November 15 through March 15. A total of 48,678 acre-feet of project water was released to Lake Creek during this time. This water was released such that the flow in the Arkansas River at the Wellsville gage was maintained as close to the average October 15 to November 15 trout-spawning flow as possible. The combined reservoir and forebay water storage reached a low point of 99,038 acre-feet on May 19, 2008, and was at its high point of 134,693 acre-feet on October 1, 2007. There was no project water released to augment rafting flows in the Arkansas River during the period of July 1 to August 15.

At least one generating/pumping unit was available at the Mt. Elbert Powerplant throughout the 2008 water year. The capacity of one unit is greater than the capacity of the Mt. Elbert Conduit. A total of 374,223 megawatt-hours of energy was generated at the powerplant, with 1,095,594 acre-feet of water; 173,968 acre-feet came through the Mt. Elbert Conduit; and 931,211 acre-feet were first pumped to the Mt. Elbert Forebay from Twin Lakes during off-peak electric demand hours. Table 7 depicts the monthly powerplant operation for the 2008 water year.

G. Pueblo Reservoir

The water storage content of Pueblo Reservoir was 154,384 acre-feet (elevation 4854.09 feet) on September 30, 2007, 115 percent of average. Project water released from Turquoise Lake, through the Leadville Federal Fish Hatchery, and from Twin Lakes, was stored in Pueblo Reservoir through the winter and spring. A total of 52,329 acre-feet of native inflow was stored in the reservoir under the winter water storage program from November 15, 2007, through March 14, 2008. During the water year, 26,876 acre-feet of winter water and 23,098 acre-feet of winter water carryover were released, and 3,011 acre-feet evaporated. The reservoir reached a high point in storage of 256,073 acre-feet (elevation 4880.30 feet) on April 3, 2008. There were 175,565 acre-feet (elevation 4861.16 feet) in storage on September 30, 2008. This is 131 percent of average and 81,384 acre-feet less than a full conservation pool.

Table 8 and Exhibit 20 depict Pueblo Reservoir monthly operations during the 2008 water year. The 2007-08 winter water storage is shown on Exhibit 17, and the winter water releases are shown on Exhibit 18. The pan evaporation at the reservoir is shown on Exhibit 19.

H. Storage Contracts

There were eight contracts for storage of non-project water in project storage space on the east slope in effect in water year 2008. Six of those were long-term contracts: the Twin Lakes Reservoir and Canal Company for 54,452 acre-feet; the City of Colorado Springs for 17,416 acre-feet; the City of Aurora for 5,000 acre-feet; the Pueblo Board of Water Works for 5,000 acre-feet; Busk-Ivanhoe, Inc., for 10,000 acre-feet; and the Homestake Project for 30,000 acre-feet. There were two long-term, non-firm contracts: Pueblo Board of Water Works and City of Aurora. The remaining contracts were interim, one-year contracts for "if-and-when" storage space. Under "if-and-when" contracts, non-project water may be stored in project storage space as long as that storage space is not required for project water.

I. Project Water Sales and Deliveries

There were 83,000 acre-feet of Fryingpan-Arkansas Project water made available to the Southeastern Colorado Water Conservancy District during water year 2008. The district purchased 82,689 acre-feet and called for 47,956 acre-feet of project and project carryover water during the year. Evaporation reduced the project water in storage by 10,731 acre-feet. By the end of the water year (September 30, 2008), the district had 44,438 acre-feet of 2008 allocated water and 88,616 acre-feet of carryover water remaining in storage. Of the 47,956 acre-feet of project water released, 7,787 acre-feet were for municipal and industrial use, and 40,169 acre-feet were for irrigation. The monthly release of project water from Pueblo Reservoir is shown on Exhibit 21.

J. Reservoir Storage Allocation Data

Table 9 presents the reservoir storage allocations for the five project reservoirs.

K. Reservoir Evaporation and Precipitation

Tables 11 and 12 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 10. The assumption is that there is no evaporation from a reservoir water surface when ice completely covers the reservoir.

L. Flood Control Benefits

Releases from Ruedi Reservoir did not create any flooding situation downstream during WY 2008 due to a combination of adequate reservoir capacity, timely releases, and maximum diversions through the Boustead Tunnel. However, the U. S. Army Corps of Engineers estimated that the operations at Ruedi Reservoir during WY 2008 prevented a total of $1,635,000 in potential flood damages. Since impoundment, Ruedi Reservoir has prevented a total of $11,581,300 in potential flood damages.

The snowpack in the Arkansas River Basin was extremely high during WY 2008. However, the reservoir level for Pueblo Reservoir did not reach the flood pool, and the reservoir releases were always below levels that could cause economic damage.

Therefore, the Corps of Engineers has determined that Pueblo Reservoir did not directly prevent any flooding downstream during VVY 2008.

Table 13 shows the historic flood control benefits provided by Pueblo and Ruedi Dams.

Table 1

Ruedi Reservoir
Water Year 2008 Operations
Unit: 1,000 Acre-Feet

Year	Month	Inflow	Evaporation*	Outflow	End of Month Content	Water Surface Elevation (FEET)
2007	Sep				86.0	7748.69
	Oct	5.5	0	6.3	85.3	7747.80
	Nov	3.2	0	5.1	83.4	7745.66
	Dec	3.0	0	5.6	80.8	7742.65
2008	Jan	2.8	0	6.5	77.1	7738.35
	Feb	2.6	0	9.5	70.2	7729.77
	Mar	2.7	0	10.0	63.0	7720.14
	Apr	7.5	0	14.6	55.8	7710.02
	May	31.0	0	19.3	67.6	7726.35
	Jun	54.6	0	24.5	97.7	7761.20
	Jul	19.1	0	15.4	101.4	7765.03
	Aug	9.2	0	16.3	94.2	7757.63
	Sep	5.4	0	17.9	81.8	7743.86
Total		146.6	0	151.0		

* No evaporation records available

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
April-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE 3ELOW DAN (CFS)	RUEDI ;ALLED OUT (1= YES) (0= NO)	REQUIRED MIN FLOW ELOW RUE w/o FISH RE (CFS)	REQUIRED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
TUE	4/1/2008	7,719.85	62,741.93	39.61	0.00	146.02	3.05	149.07	N	39.00	0.00	0.00	2,341.38
WED	4/2/2008	7,719.54	62,516.66	54.25	0.00	167.82	2.95	170.77	N	39.00	0.00	0.00	1,881.16
THU	4/3/2008	7,719.09	62,190.39	52.59	0.00	217.08	3.20	220.28	N	39.00	0.00	0.00	1,662.52
FRI	4/4/2008	7,718.64	61,865.46	48.30	0.00	212.11	3.18	215.30	N	39.00	0.00	0.00	1,559.63
SAT	4/5/2008	7,718.18	61,534.12	51.18	0.00	218.23	3.22	221.45	N	39.00	0.00	0.00	1,463.12
SUN	4/6/2008	7,717.74	61,218.14	59.22	0.00	218.53	3.22	221.75	N	39.00	0.00	0.00	1,480.24
MON	4/7/2008	7,717.31	60,910.09	62.59	0.00	217.90	3.21	221.11	N	39.00	0.00	0.00	1,545.36
TUE	4/8/2008	7,716.64	60,432.11	-19.03	0.00	221.94	3.15	225.09	N	-15.89	0.00	0.00	1,579.80
WED	4/9/2008	7,716.18	60,105.19	60.43	0.00	225.25	3.23	228.49	N	39.00	0.00	0.00	1,525.35
THU	4/10/2008	7,715.79	59,828.68	86.18	0.00	225.59	2.90	228.49	N	39.00	0.00	0.00	1,627.88
FRI	4/11/2008	7,715.33	59,503.64	60.90	0.00	224.77	2.87	227.64	N	39.00	0.00	0.00	1,535.21
SAT	4/12/2008	7,714.86	59,172.39	56.29	0.00	223.30	2.87	226.17	N	39.00	0.00	0.00	1,413.82
SUN	4/13/2008	7,714.41	58,856.55	65.03	0.00	224.26	2.92	227.18	N	39.00	0.00	0.00	1,324.84
MON	4/14/2008	7,713.99	58,562.47	76.28	0.00	224.55	3.46	228.00	N	39.00	0.00	0.00	1,269.96
TUE	4/15/2008	7,713.63	58,310.75	97.48	0.00	224.38	4.41	228.80	N	39.00	0.00	0.00	1,416.99
WED	4/16/2008	7,713.36	58,122.53	129.49	0.00	224.38	4.92	229.30	N	39.00	0.00	0.00	1,899.63
THU	4/17/2008	7,713.05	57,906.81	115.42	0.00	224.18	4.21	228.38	N	39.00	0.00	0.00	2,138.18
FRI	4/18/2008	7,712.73	57,684.76	112.13	0.00	224.07	4.52	228.59	N	39.00	0.00	0.00	1,854.40
SAT	4/19/2008	7,712.46	57,497.65	129.75	0.00	224.09	5.70	229.79	N	39.00	0.00	0.00	1,800.40
SUN	4/20/2008	7,712.30	57,386.83	168.83	0.00	224.70	6.68	231.38	N	39.00	0.00	0.00	2,250.18
MON	4/21/2008	7,712.22	57,331.80	196.81	0.00	224.55	6.83	231.38	N	39.00	0.00	0.00	2,662.75
TUE	4/22/2008	7,711.99	57,172.96	197.14	0.00	277.22	7.13	284.35	N	39.00	0.00	0.00	2,952.78
WED	4/23/2008	7,711.76	57,014.02	238.82	0.00	318.95	7.97	326.92	N	39.00	0.00	0.00	3,209.00
THU	4/24/2008	7,711.60	56,904.05	263.38	0.00	318.82	8.73	327.55	N	39.00	0.00	0.00	3,652.92
FRI	4/25/2008	7,711.36	56,738.82	235.42	0.00	318.72	9.38	328.10	N	39.00	0.00	0.00	3,778.23
SAT	4/26/2008	7,710.99	56,485.11	191.05	0.00	318.96	10.22	329.18	N	39.00	0.00	0.00	3,664.95
SUN	4/27/2008	7,710.60	56,218.00	185.54	0.00	320.20	10.57	330.77	N	39.00	0.00	0.00	3,322.73
MON	4/28/2008	7,710.27	55,992.55	205.88	0.00	319.54	10.55	330.09	N	39.00	0.00	0.00	3,156.81
TUE	4/29/2008	7,710.09	55,869.70	257.25	0.00	319.19	10.65	329.83	N	39.00	0.00	0.00	3,421.31
WED	4/30/2008	7,710.02	55,822.13	295.71	0.00	319.69	11.26	330.95	N	39.00	0.00	0.00	4,094.19
Averages		7,714.20	58,729.88	125.80	0.00	245.63	5.57	251.21			0.00		2,250
Totals (acft)				7,486	0	14,616	332	14,948			0	0	133,858

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
May-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIRS RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE 3ELOW DAN (CFS)	RUEDI :ALLED OUT MIN FLOW ENDANGERED (1= YES) (0= NO)	REQUIRED CUMULATIVE ELOW RUE(w/o FISH RE (CFS)	FISH RELEASE (CFS)	FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
THU	5/1/2008	7,710.04	55,835.77	328.91	2.93	319.10	11.83	330.93	N	110.00	0.00	0.00	4,821.48
FRI	5/2/2008	7,709.83	55,692.85	249.41	2.93	318.53	12.33	330.87	N	110.00	0.00	0.00	5,004.27
SAT	5/3/2008	7,709.52	55,482.14	215.45	2.92	318.76	12.31	331.08	N	110.00	0.00	0.00	4,344.83
SUN	5/4/2008	7,709.18	55,251.68	205.87	2.91	319.15	11.83	330.97	N	110.00	0.00	0.00	3,612.83
MON	5/5/2008	7,708.91	55,068.93	229.83	2.90	319.06	11.65	330.72	N	110.00	0.00	0.00	3,420.96
TUE	5/6/2008	7,708.92	55,075.54	325.77	2.90	319.53	11.84	331.37	N	110.00	0.00	0.00	3,638.71
WED	5/7/2008	7,709.02	55,143.25	354.88	2.91	317.83	12.37	330.20	N	110.00	0.00	0.00	4,900.75
THU	5/8/2008	7,709.48	55,454.96	472.38	2.92	312.31	14.69	327.00	N	110.00	0.00	0.00	6,665.79
FRI	5/9/2008	7,709.66	55,577.32	373.87	2.92	309.25	16.56	325.81	N	110.00	0.00	0.00	8,177.98
SAT	5/10/2008	7,709.85	55,706.46	377.23	2.93	309.20	18.27	327.47	N	110.00	0.00	0.00	7,947.06
SUN	5/11/2008	7,709.87	55,720.09	318.88	2.93	309.08	17.95	327.03	N	110.00	0.00	0.00	7,482.58
MON	5/12/2008	7,709.96	55,781.24	342.99	2.93	309.23	16.98	326.21	N	110.00	0.00	0.00	6,923.11
TUE	5/13/2008	7,710.11	55,883.34	363.25	2.93	308.84	16.31	325.14	N	110.00	0.00	0.00	7,083.39
WED	5/14/2008	7,710.15	55,910.64	324.94	2.93	308.24	16.06	324.31	N	110.00	0.00	0.00	7,101.55
THU	5/15/2008	7,710.15	55,910.64	311.30	2.93	308.36	15.77	324.14	N	110.00	0.00	0.00	6,613.00
FRI	5/16/2008	7,710.19	55,937.93	324.77	2.93	[3]08.08	15.24	323.32	N	110.00	0.00	0.00	6,347.69
SAT	5/17/2008	7,710.42	56,094.87	390.92	2.94	308.86	15.13	323.99	N	110.00	0.00	0.00	6,493.94
SUN	5/18/2008	7,711.11	56,567.15	550.61	2.95	309.55	15.86	325.42	N	110.00	0.00	0.00	7,632.70
MON	5/19/2008	7,712.26	57,359.14	712.73	2.98	310.47	20.39	330.86	N	110.00	0.00	0.00	9,915.27
TUE	5/20/2008	7,713.81	58,436.54	858.07	3.01	311.88	38.17	350.05	N	110.00	0.00	0.00	13,198.30
WED	5/21/2008	7,715.86	59,878.12	1,043.39	3.06	313.55	49.29	362.84	N	110.00	0.00	0.00	17,645.47
THU	5/22/2008	7,717.69	61,182.09	974.87	3.09	314.37	52.14	366.51	N	110.00	0.00	0.00	20,970.18
FRI	5/23/2008	7,718.72	61,923.55	691.64	3.12	314.71	41.63	356.34	N	110.00	0.00	0.00	20,616.10
SAT	5/24/2008	7,719.44	62,444.40	580.73	3.13	315.01	34.23	349.25	N	110.00	0.00	0.00	17,219.49
SUN	5/25/2008	7,720.01	62,858.13	527.90	3.14	316.17	30.18	346.35	N	110.00	0.00	0.00	13,873.13
MON	5/26/2008	7,720.66	63,332.91	559.8[3]	3.16	317.30	29.99	347.29	N	110.00	0.00	0.00	11,975.34
TUE	5/27/2008	7,721.40	63,874.83	593.68	3.18	317.29	31.43	348.73	N	110.00	0.00	0.00	11,839.31
WED	5/28/2008	7,722.43	64,634.34	704.13	3.20	318.02	36.17	354.19	N	110.00	0.00	0.00	12,790.91
THU	5/29/2008	7,723.73	65,599.81	808.33	3.23	318.35	43.06	361.41	N	110.00	0.00	0.00	14,557.12
FRI	5/30/2008	7,725.04	66,581.12	816.57	3.26	318.58	47.06	365.64	N	110.00	0.00	0.00	16,667.61
SAT	5/31/2008	7,726.35	67,571.92	821.68	3.29	318.86	48.46	367.32	N	110.00	0.00	0.00	18,132.15
Averages		7,713.99	58,637.80	508.22	3.02	314.11	24.68	338.80			0.00		9,923
Totals (acft)				31,250	185	19,314	1,518	20,832			0	0	610,150

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
June-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAN (CFS)	RUEDI CALLED OUT (1= YES) (0= NO)	REQUIRED MIN FLOW ELOW RUE[w/o FISH RE (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
SUN	6/1/2008	7,727.87	68,734.87	913.94	8.16	319.48	52.35	371.82	N	110.00	0.00	0.00	19,307.07
MON	6/2/2008	7,729.83	70,255.54	1,095.49	8.27	320.55	59.72	380.27	N	110.00	0.00	0.00	20,990.35
TUE	6/3/2008	7,732.07	72,022.02	1,223.07	8.41	324.07	66.02	390.09	N	110.00	0.00	0.00	23,380.29
WED	6/4/2008	7,733.94	73,520.05	1,096.70	8.52	332.93	69.20	402.13	N	110.00	0.00	0.00	24,466.08
THU	6/5/2008	7,735.13	74,484.14	925.39	8.61	430.72	62.80	493.52	N	110.00	0.00	0.00	22,639.24
FRI	6/6/2008	7,735.91	75,120.77	866.71	8.64	537.11	57.50	594.61	N	110.00	0.00	0.00	20,032.27
SAT	6/7/2008	7,736.36	75,489.25	835.98	8.67	641.53	59.10	700.63	N	110.00	0.00	0.00	18,313.73
SUN	6/8/2008	7,736.81	75,859.25	929.72	8.71	734.47	64.40	798.87	N	110.00	0.00	0.00	18,316.36
MON	6/9/2008	7,736.82	75,867.29	792.00	8.71	779.24	58.92	838.16	N	110.00	0.00	0.00	17,891.79
TUE	6/10/2008	7,736.93	75,958.16	758.85	8.71	704.33	57.74	762.07	N	110.00	0.00	0.00	15,757.92
WED	6/11/2008	7,737.44	76,378.84	816.65	8.74	595.81	60.01	655.82	N	110.00	0.00	0.00	15,979.11
THU	6/12/2008	7,737.87	76,734.97	682.24	8.77	493.92	55.65	549.58	N	110.00	0.00	0.00	16,073.67
FRI	6/13/2008	7,738.31	77,100.26	606.50	8.79	413.54	50.97	464.52	N	110.00	0.00	0.00	13,503.81
SAT	6/14/2008	7,738.99	77,667.14	620.52	8.84	325.88	50.37	376.26	N	110.00	0.00	0.00	12,333.87
SUN	6/15/2008	7,739.92	78,446.17	709.99	8.91	308.33	54.03	362.36	N	110.00	0.00	0.00	12,663.47
MON	6/16/2008	7,741.33	79,637.41	917.97	8.98	308.42	62.36	370.78	N	110.00	0.00	0.00	13,964.18
TUE	6/17/2008	7,743.15	81,192.34	1,087.68	9.10	294.65	71.45	366.10	N	110.00	0.00	0.00	15,641.10
WED	6/18/2008	7,745.23	82,994.00	1,159.73	9.22	242.18	78.68	320.87	N	110.00	0.00	0.00	15,841.23
THU	6/19/2008	7,747.51	84,996.52	1,253.35	9.36	234.40	85.01	319.41	N	110.00	0.00	0.00	16,637.32
FRI	6/20/2008	7,749.64	86,893.20	1,200.46	9.48	234.75	86.58	321.33	N	110.00	0.00	0.00	17,332.72
SAT	6/21/2008	7,751.56	88,624.23	1,117.13	9.61	234.82	83.35	318.17	N	110.00	0.00	0.00	17,732.85
SUN	6/22/2008	7,753.30	90,211.89	1,045.03	9.73	234.87	79.41	314.28	N	110.00	0.00	0.00	16,721.18
MON	6/23/2008	7,754.85	91,641.96	966.29	9.82	235.49	75.14	310.63	N	110.00	0.00	0.00	15,531.58
TUE	6/24/2008	7,756.35	93,039.73	964.33	9.92	249.71	72.21	321.92	N	110.00	0.00	0.00	14,991.98
WED	6/25/2008	7,757.57	94,186.93	935.01	9.99	346.64	70.30	416.95	N	110.00	0.00	0.00	14,282.17
THU	6/26/2008	7,758.60	95,163.37	953.64	10.06	451.30	68.95	520.26	N	110.00	0.00	0.00	14,459.19
FRI	6/27/2008	7,759.28	95,811.25	886.59	10.11	549.84	66.32	616.15	N	110.00	0.00	0.00	14,964.85
SAT	6/28/2008	7,759.88	96,385.73	847.44	10.15	547.67	63.40	611.07	N	110.00	0.00	0.00	14,552.96
SUN	6/29/2008	7,760.53	97,010.46	822.12	10.20	496.95	60.47	557.42	N	110.00	0.00	0.00	13,993.68
MON	6/30/2008	7,761.20	97,657.66	801.43	10.24	464.90	57.94	522.84	N	110.00	0.00	0.00	13,510.89
Averages		7,744.47	82,636.18	927.73	9.18	412.95	65.35	478.30			0.00		16,727
Totals (acft)				55,205	546	24,573	3,888	28,461			0	0	995,334

RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
July-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAN (CFS)	RUEDI CALLED OUT (1= YES) (0= NO)	REQUIRED MIN FLOW ELOW RUE w/o FISH RE (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
TUE	7/1/2008	7,761.76	98,199.98	747.19	9.24	464.53	54.42	518.95	N	110.00	0.00	0.00	13,193.99
WED	7/2/2008	7,762.18	98,608.70	659.75	9.26	444.43	51.60	496.03	N	110.00	0.00	0.00	13,233.17
THU	7/3/2008	7,762.47	98,891.93	505.96	9.27	353.89	47.17	401.07	N	110.00	0.00	0.00	12,309.99
FRI	7/4/2008	7,762.90	99,311.30	487.06	9.31	266.33	43.40	309.73	N	110.00	0.00	0.00	11,184.44
SAT	7/5/2008	7,763.27	99,673.89	458.68	9.32	266.56	40.72	307.28	N	110.00	0.00	0.00	10,829.27
SUN	7/6/2008	7,763.60	99,997.70	439.93	9.34	267.34	38.39	305.73	N	110.00	0.00	0.00	10,488.73
MON	7/7/2008	7,764.05	100,439.20	499.24	9.37	267.28	39.58	306.86	N	110.00	0.00	0.00	9,891.22
TUE	7/8/2008	7,764.61	100,992.55	555.96	9.40	267.58	36.20	303.78	N	110.00	0.00	0.00	10,375.97
WED	7/9/2008	7,764.79	101,170.56	367.29	9.42	268.12	32.71	300.83	N	110.00	0.00	0.00	10,114.36
THU	7/10/2008	7,764.92	101,298.88	342.88	9.42	268.76	29.98	298.74	N	110.00	0.00	0.00	10,375.52
FRI	7/11/2008	7,764.98	101,359.00	306.25	9.42	266.52	27.86	294.39	N	110.00	0.00	0.00	9,057.83
SAT	7/12/2008	7,765.04	101,417.84	302.14	9.43	263.04	25.99	289.03	N	110.00	0.00	0.00	7,539.39
SUN	7/13/2008	7,765.05	101,427.55	277.65	9.43	263.31	24.26	287.58	N	110.00	0.00	0.00	7,202.81
MON	7/14/2008	7,765.02	101,397.92	257.89	9.43	263.40	22.79	286.19	N	110.00	0.00	0.00	6,862.44
TUE	7/15/2008	7,764.96	101,339.00	243.85	9.42	264.14	21.06	285.20	N	110.00	0.00	0.00	6,510.34
WED	7/16/2008	7,764.90	101,279.10	243.21	9.42	263.99	19.68	283.67	N	110.00	0.00	0.00	5,754.87
THU	7/17/2008	7,764.84	101,219.77	228.82	9.42	249.32	18.66	267.98	N	110.00	0.00	0.00	5,854.96
FRI	7/18/2008	7,764.88	101,260.00	235.46	9.42	205.76	18.08	223.84	N	110.00	0.00	0.00	6,132.23
SAT	7/19/2008	7,764.93	101,309.02	219.50	9.42	185.37	17.11	202.48	N	110.00	0.00	0.00	6,150.31
SUN	7/20/2008	7,764.98	101,359.00	219.53	9.42	184.91	16.15	201.07	N	110.00	0.00	0.00	6,123.14
MON	7/21/2008	7,765.08	101,457.68	244.78	9.43	185.60	16.70	202.30	N	110.00	0.00	0.00	5,866.16
TUE	7/22/2008	7,765.19	101,566.99	250.24	9.43	185.70	18.84	204.53	N	110.00	0.00	0.00	4,960.58
WED	7/23/2008	7,765.30	101,676.30	250.39	9.45	185.83	18.07	203.90	N	110.00	0.00	0.00	4,295.22
THU	7/24/2008	7,765.32	101,696.23	204.92	9.45	185.43	16.91	202.34	N	110.00	0.00	0.00	4,895.21
FRI	7/25/2008	7,765.34	101,716.14	213.88	9.45	194.39	15.06	209.45	N	110.00	0.00	0.00	4,847.96
SAT	7/26/2008	7,765.30	101,676.30	201.47	9.45	212.11	14.44	226.54	N	110.00	0.00	0.00	4,274.35
SUN	7/27/2008	7,765.27	101,646.67	206.06	9.43	211.56	14.34	225.91	N	110.00	0.00	0.00	4,091.61
MON	7/28/2008	7,765.25	101,626.75	210.49	9.43	211.10	14.15	225.25	N	110.00	0.00	0.00	3,647.56
TUE	7/29/2008	7,765.18	101,557.27	185.51	9.43	211.10	13.81	224.91	N	110.00	0.00	0.00	3,216.85
WED	7/30/2008	7,765.10	101,477.59	179.92	9.43	210.66	14.32	224.98	N	110.00	0.00	0.00	2,916.85
THU	7/31/2008	7,765.03	101,407.63	184.84	9.43	210.68	12.91	223.59	N	110.00	0.00	0.00	2,606.10
Averages		7,764.56	100,950.27	320.35	9.40	249.96	25.66	275.62			0.00		7,252
Totals (acft)				19,698	578	15,370	1,578	16,947			0	0	445,898

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
August-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAN (CFS)	RUEDI ;ALLED OUT MIN FLOW ENDANGERED (1= YES) (0= NO)	REQUIRED CUMULATIVE ELOW RUES w/o FISH RE (CFS)	FISH RELEASE (CFS)	FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
FRI	8/1/2008	7,764.95	101,328.80	167.83	6.78	200.80	11.30	212.10	N	110.00	0.00	0.00	2,321.55
SAT	8/2/2008	7,764.94	101,318.66	211.71	6.78	210.04	10.96	221.00	N	110.00	0.00	0.00	2,107.42
SUN	8/3/2008	7,764.91	101,289.23	202.00	6.78	210.06	10.94	221.00	N	110.00	0.00	0.00	1,979.76
MON	8/4/2008	7,764.89	101,269.45	207.23	6.78	210.43	10.57	221.00	N	110.00	0.00	0.00	1,821.67
TUE	8/5/2008	7,764.84	101,219.77	192.27	6.78	210.55	10.45	221.00	N	110.00	0.00	0.00	1,758.91
WED	8/6/2008	7,764.82	101,199.98	212.34	6.78	215.54	10.59	226.13	N	110.00	0.00	0.00	1,704.79
THU	8/7/2008	7,764.80	101,180.20	213.59	6.78	216.79	11.80	228.59	N	110.00	0.00	0.00	1,935.79
FRI	8/8/2008	7,764.77	101,150.78	207.83	6.78	215.88	12.58	228.47	N	110.00	0.00	0.00	2,320.27
SAT	8/9/2008	7,764.69	101,071.66	183.35	6.76	216.47	12.12	228.59	N	110.00	0.00	0.00	2,952.34
SUN	8/10/2008	7,764.62	101,002.00	187.91	6.76	216.27	12.15	228.42	N	110.00	0.00	0.00	2,759.78
MON	8/11/2008	7,764.55	100,933.20	188.17	6.76	216.09	12.50	228.59	N	110.00	0.00	0.00	2,578.09
TUE	8/12/2008	7,764.45	100,834.80	173.68	6.76	216.53	11.78	228.31	N	110.00	0.00	0.00	2,593.01
WED	8/13/2008	7,764.31	100,696.34	167.77	6.75	230.83	11.37	242.20	N	110.00	9.00	17.85	2,305.04
THU	8/14/2008	7,764.08	100,469.12	167.59	6.74	275.41	10.92	286.32	N	110.00	59.00	134.88	2,043.60
FRI	8/15/2008	7,763.75	100,144.75	153.27	6.73	310.07	10.53	320.60	N	110.00	100.00	333.23	1,848.75
SAT	8/16/2008	7,763.50	99,899.50	193.34	6.72	310.27	10.25	320.52	N	110.00	100.00	531.58	1,733.85
SUN	8/17/2008	7,763.18	99,585.75	157.25	6.71	308.72	10.62	319.34	N	110.00	100.00	729.93	1,772.55
MON	8/18/2008	7,762.82	99,233.15	137.43	6.70	308.51	10.95	319.46	N	110.00	100.00	928.28	1,928.56
TUE	8/19/2008	7,762.46	98,881.92	138.28	6.67	308.68	10.95	319.63	N	110.00	100.00	1,126.63	1,969.74
WED	8/20/2008	7,762.10	98,530.70	138.29	6.66	308.70	10.76	319.46	N	110.00	100.00	1,324.98	1,718.76
THU	8/21/2008	7,761.72	98,161.89	129.07	6.65	308.36	10.56	318.92	N	110.00	185.94	1,693.78	1,514.49
FRI	8/22/2008	7,761.34	97,793.31	129.02	6.63	308.21	10.21	318.43	N	110.00	185.82	2,062.36	1,390.62
SAT	8/23/2008	7,760.94	97,406.10	119.75	6.62	308.35	9.84	318.18	N	110.00	195.22	2,449.57	1,354.37
SUN	8/24/2008	7,760.55	97,030.02	124.43	6.60	307.44	9.79	317.23	N	110.00	189.61	2,825.66	1,464.50
MON	8/25/2008	7,760.18	96,673.69	135.18	6.58	308.24	8.78	317.03	N	110.00	179.65	3,181.99	1,499.18
TUE	8/26/2008	7,759.77	96,280.14	118.48	6.57	310.32	7.24	317.56	N	110.00	198.41	3,575.53	1,469.09
WED	8/27/2008	7,759.37	95,897.83	125.11	6.55	311.31	7.06	318.37	N	110.00	192.75	3,957.85	1,447.02
THU	8/28/2008	7,758.94	95,486.95	112.54	6.54	313.15	6.93	320.08	N	110.00	207.15	4,368.73	1,455.00
FRI	8/29/2008	7,758.50	95,069.00	108.59	6.51	312.79	6.76	319.54	N	110.00	209.54	4,784.36	1,448.84
SAT	8/30/2008	7,758.07	94,660.34	115.46	6.49	315.00	6.68	321.68	N	110.00	206.03	5,193.02	1,571.23
SUN	8/31/2008	7,757.63	94,244.61	113.74	6.48	316.85	6.67	323.52	N	110.00	209.59	5,608.75	1,705.91
Averages		7,762.59	99,030.44	159.11	6.68	268.92	10.15	279.07			91.22		1,886
Totals (acft)				9,784	411	16,536	624	17,160			5,609	5,609	115,984

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
September-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAN (CFS)	RUEDI :ALLED OUT MIN FLOW ENDANGERED (1= YES) (0= NO)	REQUIRED CUMULATIVE ELOW RUE w/o FISH RE (CFS)	FISH RELEASE (CFS)	FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
MON	9/1/2008	7,757.19	93,829.30	108.25	3.93	313.71	6.52	320.23	N	110.00	209.38	6,024.05	1,855.49
TUE	9/2/2008	7,756.76	93,424.66	113.24	3.91	313.34	6.58	319.92	N	110.00	204.01	6,428.70	1,813.33
WED	9/3/2008	7,756.30	92,993.22	98.44	3.91	312.04	6.53	318.57	N	104.97	208.57	6,842.40	1,840.89
THU	9/4/2008	7,755.82	92,544.26	90.77	3.89	313.22	6.28	319.50	N	97.05	209.50	7,257.95	1,773.43
FRI	9/5/2008	7,755.34	92,097.39	93.04	3.88	314.45	6.13	320.58	N	99.17	210.58	7,675.64	1,677.31
SAT	9/6/2008	7,754.85	91,642.34	91.79	3.87	317.34	6.13	323.47	N	97.92	213.47	8,099.06	1,576.24
SUN	9/7/2008	7,754.35	91,179.84	89.93	3.85	319.25	6.00	325.25	N	95.93	215.25	8,526.01	1,573.25
MON	9/8/2008	7,753.85	90,718.24	89.90	3.84	318.78	5.86	324.64	N	95.77	214.64	8,951.75	1,647.21
TUE	9/9/2008	7,753.36	90,267.71	95.80	3.83	319.11	5.76	324.87	N	101.57	214.87	9,377.96	1,637.59
WED	9/10/2008	7,752.88	89,827.34	99.95	3.82	318.16	5.61	323.76	N	105.56	213.76	9,801.96	1,628.06
THU	9/11/2008	7,752.40	89,389.11	99.03	3.80	316.16	5.60	321.76	N	104.63	211.76	10,221.99	1,579.30
FRI	9/12/2008	7,752.01	89,032.91	135.54	3.80	311.33	5.60	316.92	N	110.00	179.58	10,578.19	1,739.46
SAT	9/13/2008	7,751.59	88,651.98	122.31	3.78	310.57	5.61	316.18	N	110.00	192.05	10,959.12	2,057.83
SUN	9/14/2008	7,751.11	88,216.65	96.17	3.78	311.87	5.76	317.62	N	101.92	207.62	11,370.94	2,122.81
MON	9/15/2008	7,750.63	87,783.52	100.97	3.76	315.57	5.86	321.43	N	106.83	211.43	11,790.32	1,922.35
TUE	9/16/2008	7,750.15	87,351.06	101.02	3.75	315.30	5.86	321.16	N	106.88	211.16	12,209.15	1,801.67
WED	9/17/2008	7,749.64	86,893.92	89.97	3.73	316.71	5.72	322.43	N	95.69	212.43	12,630.51	1,741.37
THU	9/18/2008	7,749.15	86,455.16	99.59	3.73	317.07	5.57	322.64	N	105.16	212.64	13,052.28	1,668.43
FRI	9/19/2008	7,748.64	86,000.72	89.20	3.71	314.60	5.36	319.96	N	94.56	209.96	13,468.73	1,694.38
SAT	9/20/2008	7,748.14	85,555.72	93.46	3.70	314.11	5.35	319.46	N	98.81	209.46	13,884.20	1,728.28
SUN	9/21/2008	7,747.65	85,121.16	98.51	3.69	313.91	5.26	319.17	N	103.77	209.17	14,299.09	1,734.62
MON	9/22/2008	7,747.14	84,670.02	89.13	3.68	312.90	5.11	318.02	N	94.25	208.02	14,711.68	1,736.16
TUE	9/23/2008	7,746.62	84,212.09	85.58	3.67	312.79	5.12	317.91	N	90.71	207.91	15,124.08	1,726.57
WED	9/24/2008	7,746.10	83,754.98	82.12	3.65	308.92	5.11	314.03	N	87.24	204.03	15,528.78	1,655.66
THU	9/25/2008	7,745.62	83,334.98	77.99	3.64	286.10	5.11	291.21	N	83.10	181.21	15,888.21	1,617.23
FRI	9/26/2008	7,745.24	83,002.97	75.08	3.63	238.83	5.00	243.83	N	80.07	133.83	16,153.66	1,608.35
SAT	9/27/2008	7,744.89	82,697.64	73.91	3.62	224.22	4.87	229.09	N	78.78	119.09	16,389.88	1,582.00
SUN	9/28/2008	7,744.56	82,411.13	82.64	3.61	223.47	4.71	228.18	N	87.34	118.18	16,624.28	1,578.31
MON	9/29/2008	7,744.21	82,107.25	73.76	3.60	223.36	4.65	228.00	N	78.40	118.00	16,858.35	1,554.64
TUE	9/30/2008	7,743.86	81,804.34	74.96	3.60	224.08	4.65	228.73	N	79.61	118.73	17,093.84	1,580.56
Averages		7,750.33	87,565.72	93.74	3.76	299.04	5.58	304.62			193.01		1,715
Totals (acft)				5,578	223	17,794	332	18,126			11,485	17,094	102,057

FRYINGPAN-ARKANSAS PROJECT
RUEDI RESERVOIR
RELEASES FOR ENDANGERED FISH
WATER YEAR 2008
October-08

DAY	DATE	ELEV. (FT)	STORAGE (AC-FT)	INFLOW (CFS)	EVAP. (CFS)	TOTAL RESERVOIR RELEASE (CFS)	ROCKY FORK CREEK (CFS)	FRYINGPAN RIVER GAGE BELOW DAN (CFS)	RUEDI :ALLED OUT (1= YES) (0= NO)	REQUIRED MIN FLOW ELOW RUE(w/o FISH RE (CFS)	ENDANGERED FISH RELEASE (CFS)	CUMULATIVE FISH RELEASE (AC-FT)	PALISADE GAGE (CFS)
WED	10/1/2008	7,743.49	81,486.09	64.39	1.34	223.49	4.65	228.14	N	69.04	118.14	17,328.18	1,562.47
THU	10/2/2008	7,743.14	81,184.66	72.44	1.34	223.07	4.56	227.63	N	76.99	117.63	17,561.49	1,548.21
FRI	10/3/2008	7,742.78	80,875.50	70.61	1.34	225.14	4.43	229.56	N	75.03	119.56	17,798.64	1,484.24
SAT	10/4/2008	7,742.41	80,559.09	66.08	1.33	224.27	4.43	228.69	N	70.51	118.69	18,034.07	1,418.92
SUN	10/5/2008	7,742.06	80,259.41	75.41	1.33	225.17	4.41	229.58	N	79.82	119.58	18,271.26	1,618.20
MON	10/6/2008	7,741.70	79,953.16	71.56	1.33	224.63	4.43	229.06	N	75.99	119.06	18,507.42	1,684.39
TUE	10/7/2008	7,741.35	79,655.59	75.64	1.33	224.34	4.43	228.76	N	80.06	118.76	18,742.99	1,520.30
WED	10/8/2008	7,741.00	79,358.00	77.43	1.32	226.14	4.43	230.57	N	81.86	120.57	18,982.13	1,496.46
THU	10/9/2008	7,740.64	79,053.91	74.37	1.32	226.36	4.43	230.79	N	78.80	120.79	19,221.73	1,493.45
FRI	10/10/2008	7,740.27	78,741.16	68.93	1.31	225.29	4.43	229.72	N	73.36	119.72	19,459.19	1,484.38
SAT	10/11/2008	7,739.90	78,429.12	68.48	1.31	224.49	4.41	228.90	N	72.89	118.90	19,695.03	1,504.17
SUN	10/12/2008	7,739.54	78,127.55	71.53	1.31	222.26	4.25	226.51	N	75.78	116.51	19,926.12	1,508.14
MON	10/13/2008	7,739.17	77,817.39	66.39	1.30	221.46	4.21	225.67	N	70.60	115.67	20,155.55	1,585.68
TUE	10/14/2008	7,738.82	77,524.91	67.17	1.30	213.32	4.35	217.68	N	71.52	107.68	20,369.13	1,589.50
WED	10/15/2008	7,738.65	77,383.37	63.07	1.30	133.14	4.21	137.35	N	67.28	27.35	20,423.37	1,612.12
THU	10/16/2008	7,738.62	77,358.55	63.59	1.30	74.80	4.22	79.01	N	67.80	0.00	20,423.37	1,597.63
FRI	10/17/2008	7,738.59	77,333.34	63.48	1.30	74.89	4.20	79.09	N	67.68	0.00	20,423.37	1,541.41
SAT	10/18/2008	7,738.56	77,308.53	63.59	1.30	74.80	4.20	79.00	N	67.79	0.00	20,423.37	1,518.41
SUN	10/19/2008	7,738.53	77,283.31	63.40	1.30	74.81	4.20	79.01	N	67.60	0.00	20,423.37	1,501.16
MON	10/20/2008	7,738.51	77,266.63	67.75	1.30	74.87	4.20	79.07	N	71.95	0.00	20,423.37	1,516.33
TUE	10/21/2008	7,738.50	77,258.50	72.38	1.30	75.19	4.20	79.39	N	76.58	0.00	20,423.37	1,555.50
WED	10/22/2008	7,738.45	77,217.02	55.17	1.30	74.79	4.20	78.99	N	59.37	0.00	20,423.37	1,559.72
THU	10/23/2008	7,738.41	77,183.66	59.27	1.30	74.79	4.20	78.99	N	63.47	0.00	20,423.37	1,579.86
FRI	10/24/2008	7,738.39	77,166.98	67.68	1.30	74.79	4.20	78.99	N	71.88	0.00	20,423.37	1,510.14
SAT	10/25/2008	7,738.36	77,141.77	63.36	1.30	74.78	4.20	78.98	N	67.56	0.00	20,423.37	1,483.20
SUN	10/26/2008	7,738.35	77,133.63	71.96	1.30	74.76	4.20	78.96	N	76.16	0.00	20,423.37	1,500.88
MON	10/27/2008	7,738.30	77,091.73	55.08	1.29	74.91	4.20	79.11	N	59.28	0.00	20,423.37	1,541.11
TUE	10/28/2008	7,738.27	77,066.93	63.32	1.29	74.53	4.47	78.99	N	67.78	0.00	20,423.37	1,575.79
WED	10/29/2008	7,738.24	77,042.12	63.04	1.29	74.25	4.65	78.90	N	67.69	0.00	20,423.37	1,585.66
THU	10/30/2008	7,738.21	77,016.90	63.03	1.29	74.45	4.57	79.01	N	67.59	0.00	20,423.37	1,590.49
FRI	10/31/2008	7,738.17	76,983.55	59.05	1.29	74.57	4.43	78.99	N	63.47	0.00	20,423.37	
Averages		7,739.66	78,234.26	66.73	1.31	143.82	4.34	148.16			54.15		1,493
Totals (acft)				4,103	80	8,844	267	9,110			3,330	20,423	91,772

NOTES Releases of water to support 15-Mile Reach target flows ceased on 10/15. A total of 20,423 acre-feet were released to support Recovery Program target flows in the 15-Mile Reach.

Table 3

Fryingpan-Arkansas Project
Transmountain Diversions
Water Year 2008
Unit: Acre-Feet

Diversion	Apr	May	Jun	Jul	Aug	Sep	Total
No Name		696	1,749	555			3,000
Hunter		1,075	4,374	2,045			7,494
Sawyer		639	2,717	1,980	901		6,237
Midway		347	2,640	2,511			5,498
Chapman'		1,006	2,950	591	59		4,606
South Fork		1,519	6,914	4,142	399		12,974
Subtotal		5,282	21,344	11,824	1,359		39,809
Carter	6	615	1,845	1,575	401		4,442
North Fork		89	520	371	46		1,026
Mormon		803	2,273	1,581	212		4,869
N. Cunningham		424	1,107	619	50		2,200
M. Cunningham[2]	256	1,373	958	69			2,656
Ivanhoe	10	1,809	5,234	1,599			8,652
Lily Pad		260	1,045	313	75		1,693
Granite	28	377	1,771	817	222		3,215
Fryingpan		2,043	10,465	5,712	962		19,182
Subtotal	44	6,676	25,633	13,545	2,037		47,935
Total	44	11,958	46,977	25,369	3,396		87,744
Boustead Tunnel'	4064	12,843	48,098	25,581	3,031	1	89,960

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

[2]Includes South Cunningham

[3]The difference between total diversion and Charles H. Boustead Tunnel results from the accuracy limitations of the measurement.

[4]Includes minimal flow from October through December 2007

Table 4

Fryingpan-Arkansas Project Imports
Charles H. Boustead Tunnel Outlet
Unit: 1,000 Acre-feet

Year	Imports	Accumulated Imports	Twin Lakes Exchange	Available for Allocations
1972	32.0	32.0	0	0.0
1973	36.8	68.8	0	16.0
1974	34.1	102.9	0	18.6
1975	37.2	140.1	0	25.0
1976	26.9	167.0	0	24.0
1977	11.4	178.4	0	25.0
1978	49.2	227.6	0	25.0
1979	53.7	281.3	0	25.6
1980	55.7	337.0	0	70.0
1981	34.6	371.6	0	25.0
1982	75.2	446.8	2.7	68.0
1983	90.8'	537.6	0.3	125.0
1984	110.12	647.7	1.9	210.0
1985	70.2	717.9	1.7	289.9
1986	30.3	748.2	1.5	300.3
1987	2.2	750.4	1.1	288.0
1988	13.4	763.8	2.0	247.8
1989	36.2	800.0	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	55.0
1996	36.9	1,226.7	1.8	110.0
1997	78.6	1,305.3	1.8	116.0
1998	51.3	1,356.6	2.6	102.0
1999	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
2004	27.4	1,583.0	1.3	15.3
2005	54.6	1,637.6	3.0	40.8
2006	61.2	1,698.8	3.0	49.2
2007	54.2	1,753.0	3.0	40.4
2008	90.0	1,843.0	3.0	83.0

Restriction: Not to exceed 120,000 acre-feet in 1 year but not to exceed 2,352,800 acre-feet in 34 consecutive years.

[1]Includes 3,120 acre-feet imported through Twin Lakes Tunnel

[2]Includes 2,080 acre-feet imports through Boustead Tunnel in October and 420 acre-feet in November. All other years are water year totals.

Turquoise Lake
Water Year 2008 Operations
Unit: 1,000 Acre-Feet

		Inflow								
		Busk-Ivanhoe Imports		Homestake Imports	Project Imports	Native Inflow	Total Inflow	Evap	Total Outflow	End of Month Content	Water Surface Elevation (FEET)
Year	Month	Through Carlton	Through Boustead								
2007	Sep									123.6	9866.15
	Oct	0.1	0	0	0.2	0.6	0.9	0.4	4.8	119.4	9863.76
	Nov	0.1	0	0.9	0.1	1.3	2.4	0.1	20.4	101.3	9853.14
	Dec	0.1	0	0	0.1	1.8	2.0	0	17.3	86.0	9843.73
2008	Jan	0.1	0	0	0	1.5	1.6	0	12.4	75.1	9836.75
	Feb	0.1	0	0	0	1.3	1.4	0	13.6	63.0	9828.40
	Mar	0.1	0	6.3	0	1.7	8.1	0	21.2	49.8	9818.55
	Apr	0.1	0	11.0	0.1	2.2	13.4	0	20.3	42.9	9812.94
	May	0.5	0	3.4	12.8	10.7	27.4	0.1	17.5	52.7	9820.75
	Jun	1.7	0	1.4	48.1	16.7	67.9	0.7	28.5	91.3	9847.08
	Jul	1.4	0	2.8	25.6	8.7	38.5	0.6	25.3	103.9	9854.68
	Aug	0.4	0	0	3.0	2.1	5.5	0.5	3.4	105.4	9855.61
	Sep	0.1	0	0.7	0	0.6	1.4	0.5	1.2	105.2	9855.47
Subtotal		4.8	0								
Tot al		4.8		26.5	90.0	49.2	170.5	2.9	185.9		

Twin Lakes/Mt. Elbert Forebay
Water Year 2008 Operations
Unit: 1,000 Acre-Feet

		Inflow									
		Twin Lakes Canal Company		Mt. Elbert Conduit		Native Inflow	Total Inflow	Evap	Total Outflow	End of Month Content'	Water Surface Elevation2 (FEET)
Year	Month	Imports	Other	Halfmoon	Project Water						
2007	Sep									134.5	9194.84
	Oct	1.7	0	0	4.3	3.9	9.9	0.6	14.6	129.2	9191.97
	Nov	1.0	0.9	0	19.9	1.4	23.2	0.2	20.5	129.6	9192.09
	Dec	0.7	2.0	0	16.8	1.3	20.8	0.1	20.3	126.7	9191.48
2008	Jan	0.4	1.6	0	11.9	1.8	15.7	0	18.7	121.3	9189.00
	Feb	0.3	1.0	0	13.0	1.3	15.6	0	17.2	118.1	9187.21
	Mar	0.3	0.4	0	20.7	0.9	22.3	0	24.9	114.1	9185.57
	Apr	0.4	1.3	0	19.7	1.5	22.9	0.1	28.0	106.4	9181.83
	May	8.0	0	2.0	16.4	12.8	39.2	0.7	39.3	101.3	9180.13
	Jun	30.8	0.5	0.4	21.5	42.9	96.1	1.4	74.2	117.7	9187.68
	Jul	16.7	0.4	2.2	21.3	24.0	64.6	1.1	48.5	130.0	9193.00
	Aug	2.9	3.5	1.6	2.3	6.9	17.2	0.9	15.4	127.1	9191.85
	Sep	0.9	0.3	0.1	0.7	2.6	4.6	0.9	1.7	128.6	9192.40
Subtotal		64.1	11.9	6.3	168.5						
Total		76.0		174.8		101.3	352.1	6.0	323.3		

[1]Contents of both Twin Lakes and Mt. Elbert Forebay

[2]Elevation of Twin Lakes

Table 7

Mt. Elbert Pumped-Storage Powerplant Operations
Water Year 2008

Year	Month	Mt. Elbert Conduit Inflow to Mt. Elbert Forebay (acre-ft)	Water Pumped from Twin Lakes to Mt. Elbert Forebay (acre-ft)	Water through Generator (acre-ft)	Megawatt-Hours Net Generation* (mWh)
2007	Oct	4,553	34,577	36,727	11,853
	Nov	19,923	51,178	70,410	23,306
	Dec	17,041	86,115	103,911	35,336
2008	Jan	12,014	91,643	104,064	35,280
	Feb	13,310	75,256	85,551	29,419
	Mar	20,995	50,836	71,528	23,582
	Apr	19,772	43,518	61,950	20,968
	May	16,399	75,429	93,068	31,559
	Jun	22,065	105,138	125,546	43,982
	Jul	23,237	103,366	125,022	43,782
	Aug	3,950	106,499	110,389	37,677
	Sep	709	107,656	107,428	37,479
Total		173,968	931,211	1,095,594	374,223

*Net Generation is gross plant generation less station service.

Pueblo Reservoir
Water Year 2008 Operations
Unit: 1,000 Acre-Feet

		Inflow							
Year	Month	Project Water	Other	Native	Total Inflow	Evapo-ration	Outflow	End of month content	Water surface elevation (FEET)
2007	Sep							154.4	4854.09
	Oct	0.2	3.3	22.7	26.2	1.3	27.9	151.4	4853.17
	Nov	10.0	2.7	21.5	34.2	0.5	16.4	168.6	4858.33
	Dec	10.9	2.6	21.3	34.8	0.5	7.9	195.0	4865.61
2008	Jan	11.5	3.9	18.9	34.3	0.3	8.1	220.9	4872.18
	Feb	10.8	2.2	19.3	32.3	0.6	10.5	242.1	4877.19
	Mar	14.9	3.0	27.5	45.4	1.3	30.7	255.5	4880.18
	Apr	21.2	2.5	23.7	47.4	2.3	58.6	242.0	4877.17
	May	8.7	2.2	68.7	79.6	2.8	92.7	226.1	4873.44
	Jun	0.3	16.0	188.4	204.7	3.1	196.2	231.5	4874.72
	Jul	0.3	14.1	113.1	127.5	3.2	144.6	211.2	4869.78
	Aug	0.3	7.2	40.0	47.5	1.9	70.0	186.8	4863.42
	Sep	0.3	3.5	16.4	20.2	1.8	26.6	178.6	4861.16
Subtotal		89.4	63.2	581.5					
Total					734.1	19.6	690.2		

Table 9

Fryingpan-Arkansas Project
Reservoir Storage Allocation Data
Unit: Acre-Feet

Reservoir	Dead	Inactive	Active conservation	Joint use	Flood control	Total capacity storage
Ruedi	63	1,095	101,278	0	0	102,3731
Turquoise	2,810	8,920	120,478	0	0	129,3981
Pueblo	2,329	28,121	228,828	66,000	26,991	349,9402
Twin Lakes	63,324	72,938	67,917	0	0	140,855
Mt. Elbert Forebay	561	3,825	7,318	0	0	11,143'

[1] New area-capacity tables (1984)

[2] New area-capacity table (1994)

Note: Inactive includes dead storage

Table 10

Fryingpan-Arkansas Project
Monthly Evaporation Factors

Month	Meredith Factor	Sugar Loaf Factor	Twin Lakes Factor	Pueblo Factor
Oct	1/	.220	.220	.247
Nov		.100	.100	.155
Dec		.030	.030	.133
Jan		.050	.050	.128
Feb		.080	.080	.173
Mar		.140	.140	.280
Apr		.233	.233	.308
May		.363	.363	-
Jun		.448	.448	-
Jul		.405	.405	-
Aug		.318	.318	-
Sep		.290	.290	-

Note: Factor is used when pan is not in operation. Factor divided by number of days in the month times reservoir area not covered by ice equals daily water surface evaporation in acre-feet.

1/ Factors have not been determined for Meredith. Factors from Twin Lakes are used for Meredith.

Table 11

Fryingpan-Arkansas Project
Monthly Average vs. Current Water Year Evaporation
(Unit = Inches)

Month	Meredith		Sugar Loaf		Twin Lakes		Pueblo	
	Ave Pan (In.)	WY 08*	Ave Pan (In.)	WY 08	Ave Pan (In.)	WY 08	Ave Pan (In.)	WY 08
Oct	0.89		2.34	3.77	2.73	3.77	5.36	6.94
Nov	0		1.57	1.53	1.70	1.58	2.63	2.66
Dec	0		0.30	0.53	0.37	0.53	2.28	2.28
Jan	0.21		0	0	0	0	2.19	2.19
Feb	0		0	0	0	0	2.98	3.07
Mar	0		0.30	2.40	0.54	2.40	4.86	4.80
Apr	0.21		0.62	3.99	1.85	3.99	6.36	8.89
May	2.33		1.66	6.54	4.57	7.27	8.79	11.42
Jun	7.49		5.47	7.58	7.36	10.02	10.17	13.06
Jul	7.60		5.25	5.53	6.79	6.96	10.94	13.44
Aug	6.06		4.21	4.61	5.58	5.28	9.00	8.96
Sep	4.02		3.45	4.54	4.87	5.68	7.34	8.54

*No records for Meredith evaporation

Table 12

Fryingpan-Arkansas Project
Monthly Average Vs. Current Water Year Precipitation
(Unit = Inches)

Month	Meredith		Sugar Loaf		Twin Lakes		Pueblo		Rocky Ford	
	Avg.	WY 08	Avg.	WY 08	Avg.	WY 08	Avg.	WY 08	Avg.	WY 08
Oct	1.46	0.09	0.97	1.01	0.64	0.80	0.65	0.80	0.78	0.48
Nov	1.11	0.02	1.28	2.01	0.51	0.80	0.54	0.11	0.46	0.04
Dec	1.22	0.06	1.23	2.36	0.47	0.78	0.37	0.47	0.32	0.40
Jan	1.20	4.00	1.43	2.84	0.40	1.05	0.28	0.30	0.26	0.22
Feb	1.01	3.40	1.21	4.15	0.49	1.18	0.25	0.17	0.29	0.45
Mar	1.13	2.70	1.46	2.38	0.73	1.03	0.85	0.81	0.68	0.46
Apr	1.26	2.30	1.42	1.25	0.76	1.00	1.36	0.58	1.32	0.87
May	1.38	2.80	1.27	1.63	0.92	0.63	1.58	0.61	1.83	0.61
Jun	1.38	0.37	1.15	0.60	0.87	0.17	1.34	1.07	1.40	0.77
Jul	1.63	3.40	1.97	1.62	1.59	1.07	1.94	1.39	1.97	0.71
Aug	1.73	3.92	2.01	1.35	1.51	1.25	1.93	3.48	1.54	4.91
Sep	1.64	1.57	1.35	0.67	0.96	0.52	0.93	0.48	0.90	0.05
Total	16.15	24.63	16.75	21.87	9.85	10.28	12.02	10.27	11.75	9.97
Max. Annual	26.70	(1984)	25.95	(1957)	17.27	(1952)	20.32	(2007)	22.75	(1999)

Table 13

Fryingpan-Arkansas Project
Flood Control Benefits in Dollars

	Ruedi Reservoir		Pueblo Reservoir	
	Benefits	Accumulated Benefits	Benefits	Accumulated Benefits
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
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

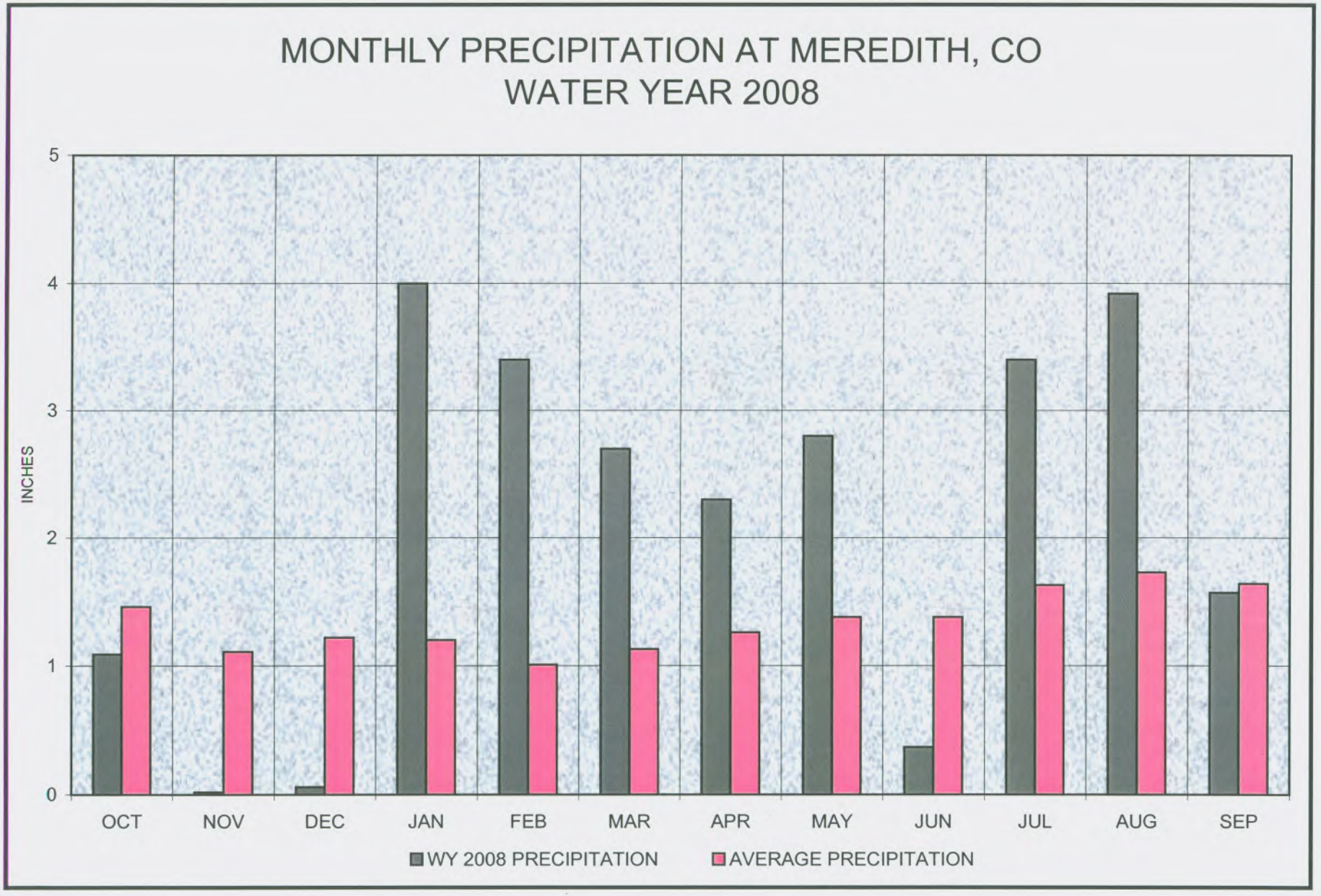

MONTHLY PRECIPITATION AT MEREDITH, CO
WATER YEAR 2008
INCHES
0
1
2
3
4
5
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 PRECIPITATION
AVERAGE PRECIPITATION

Exhibit 1

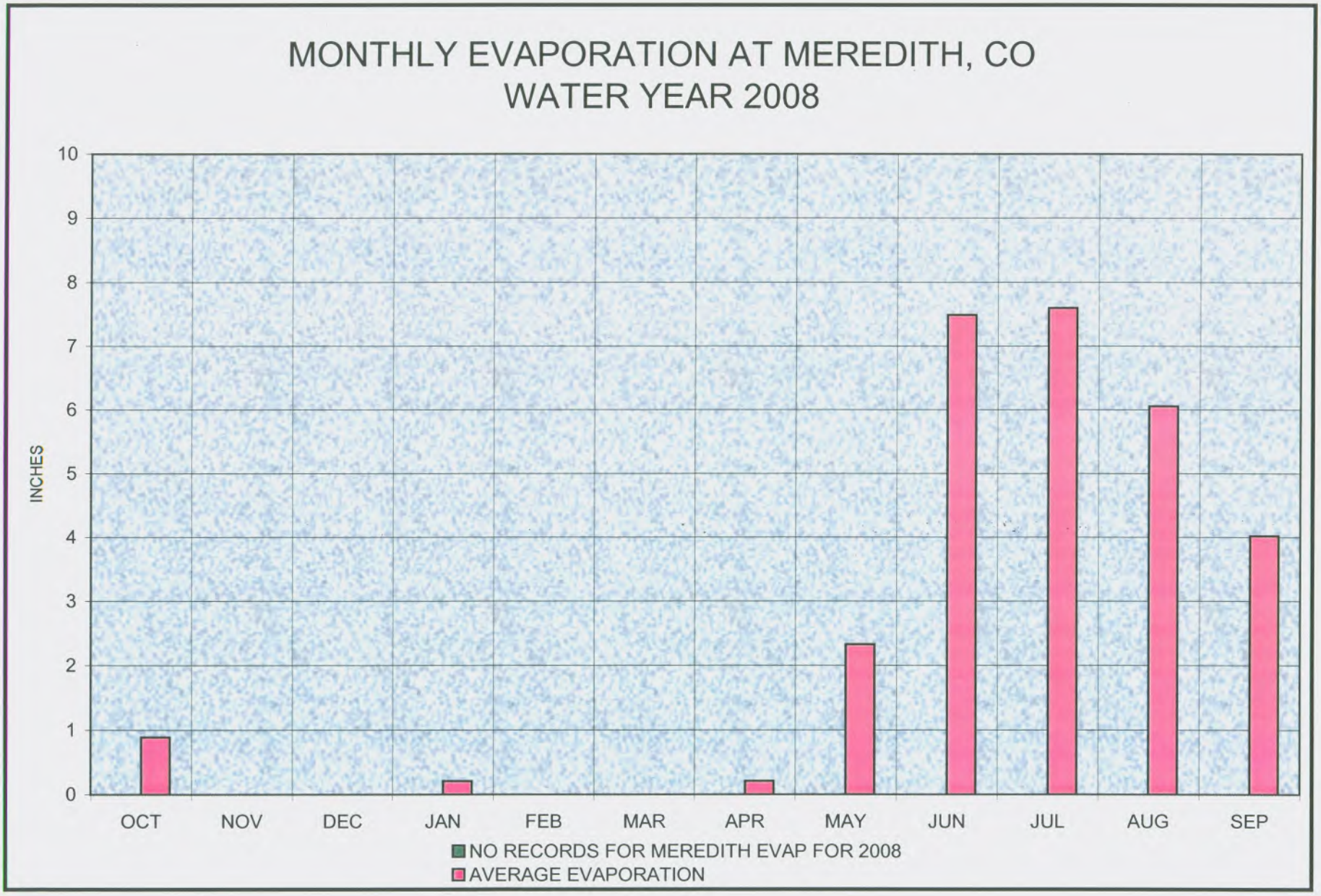

MONTHLY EVAPORATION AT MEREDITH, CO
WATER YEAR 2008
INCHES
10
9
8
7
6
5
4
3
2
1
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
NO RECORDS FOR MEREDITH EVAP FOR 2008
AVERAGE EVAPORATION

Exhibit 2

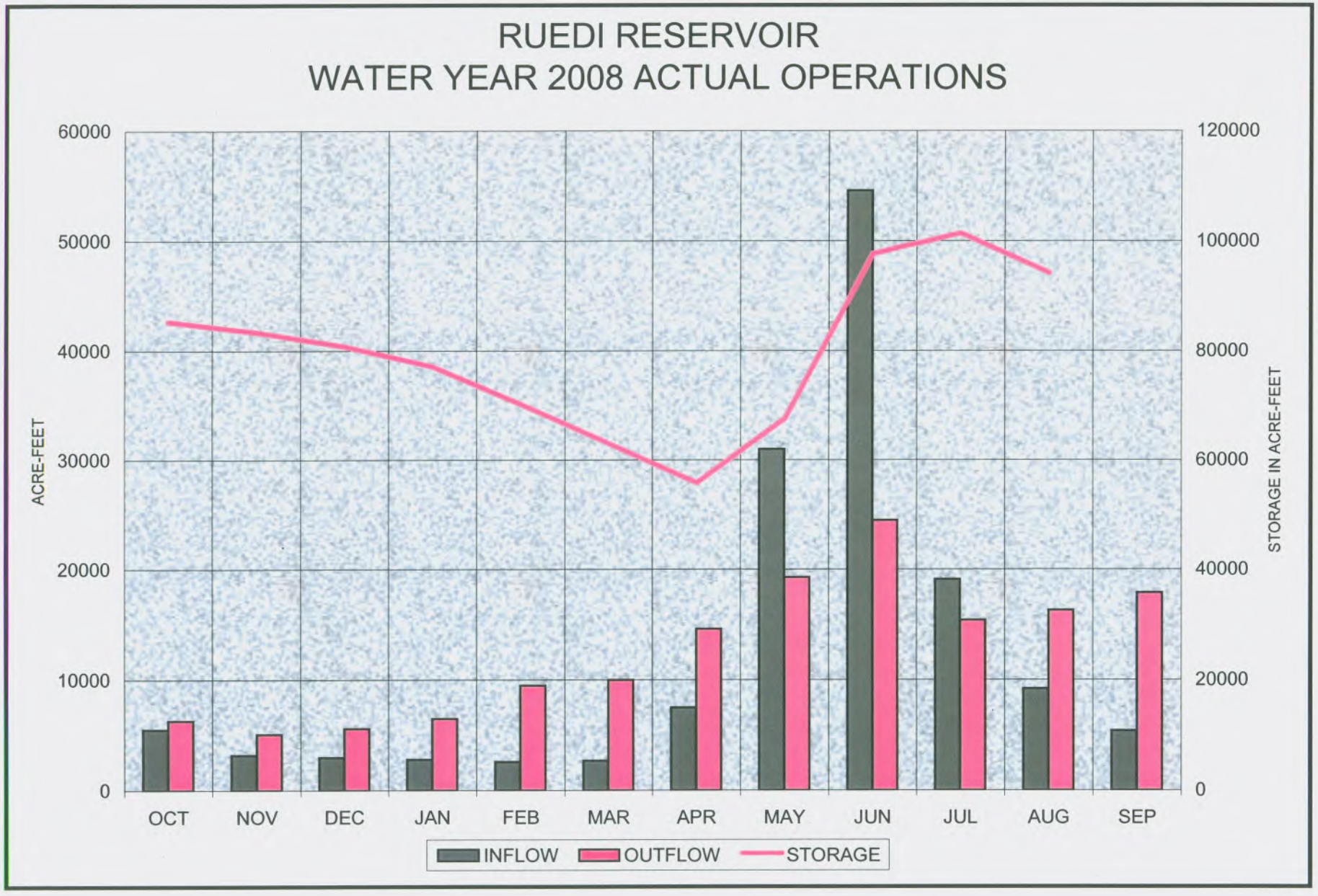

RUEDI RESERVOIR
WATER YEAR 2008 ACTUAL OPERATIONS
ACRE-FEET
STORAGE IN ACRE-FEET
60000
50000
40000
30000
20000
10000
0
120000
100000
80000
60000
40000
20000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
INFLOW
OUTFLOW
STORAGE

Exhibit 3

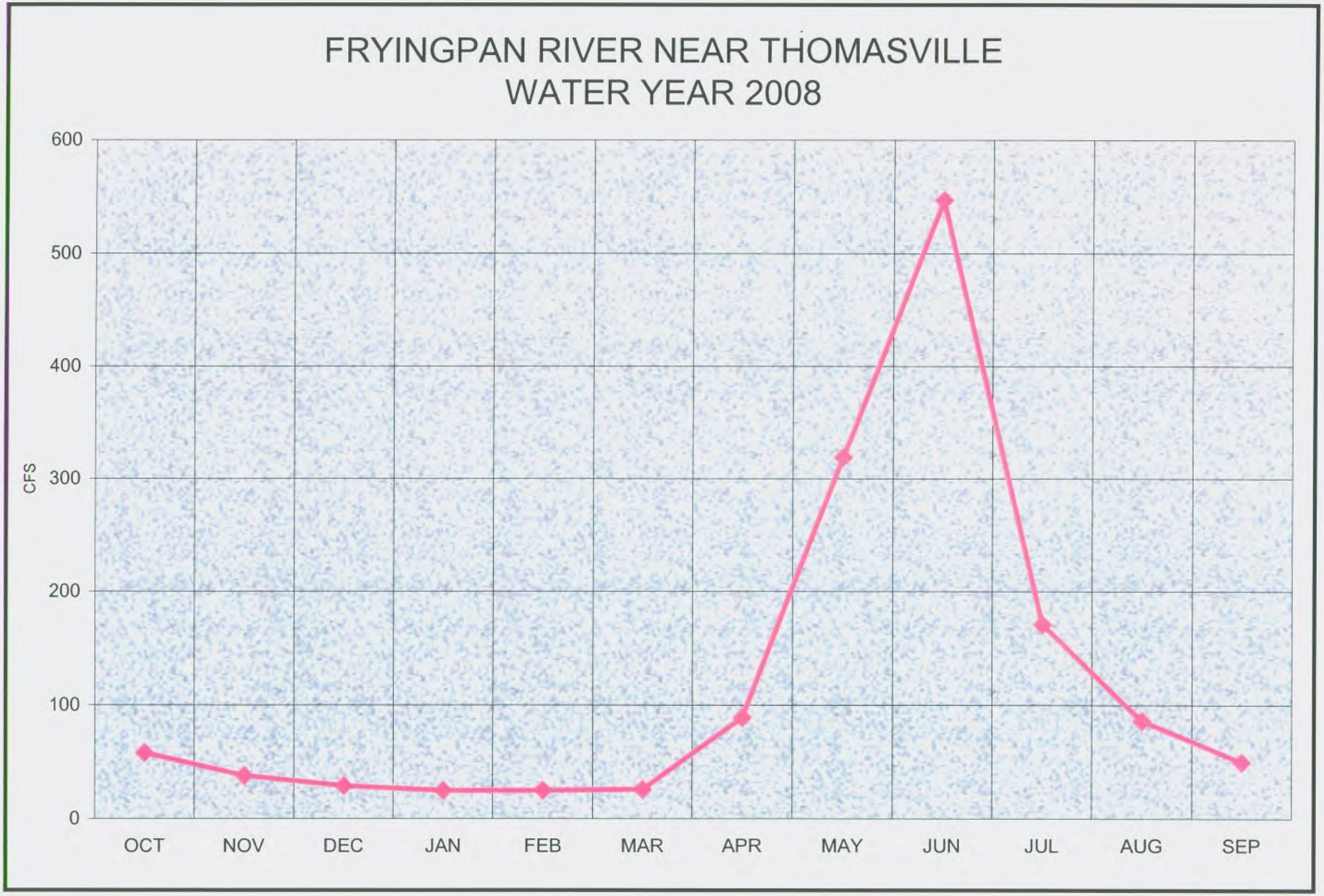

FRYINGPAN RIVER NEAR THOMASVILLE
WATER YEAR 2008
CFS
600
500
400
300
200
100
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 4

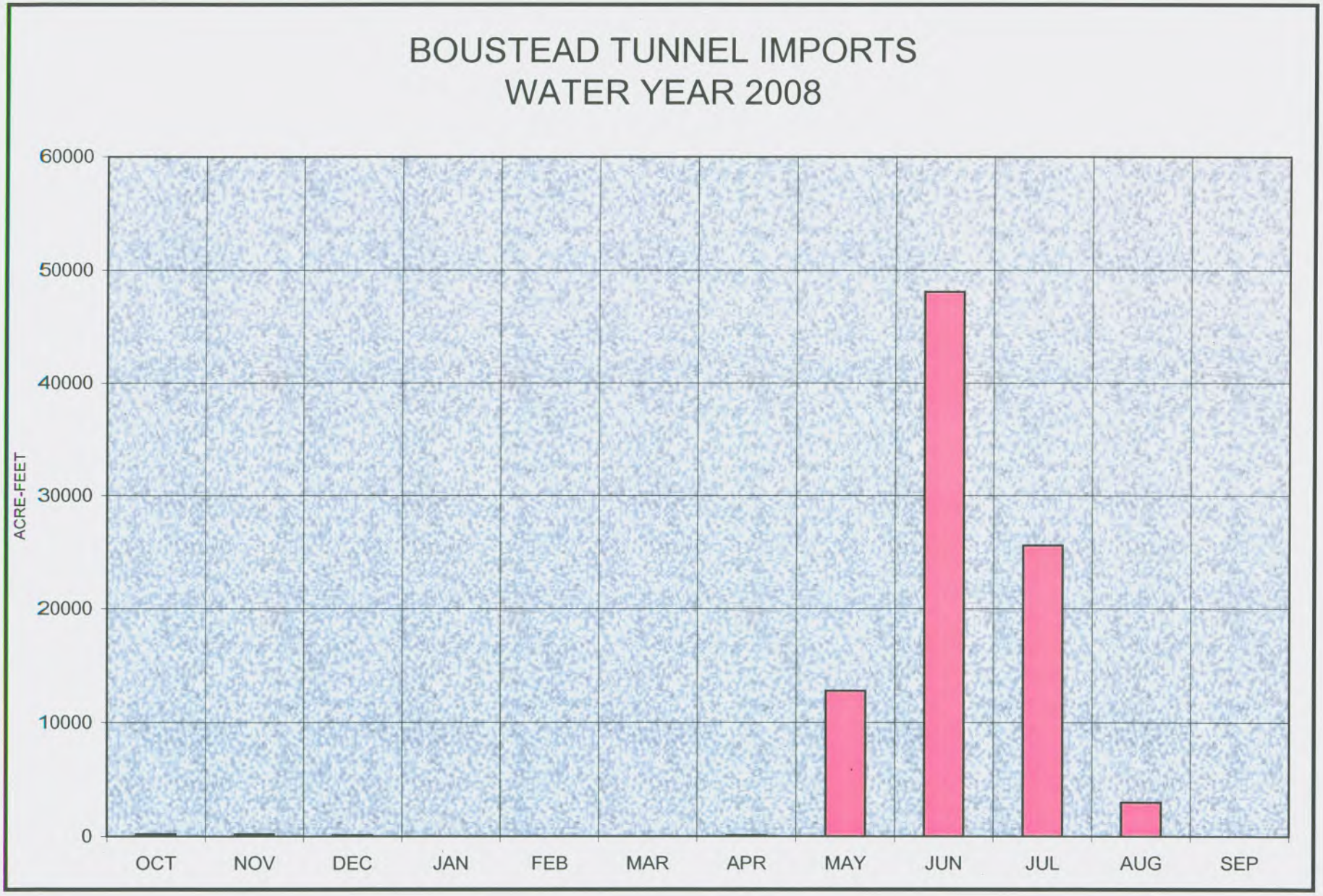

BOUSTEAD TUNNEL IMPORTS
WATER YEAR 2008
ACRE-FEET
60000
50000
40000
30000
20000
10000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 5

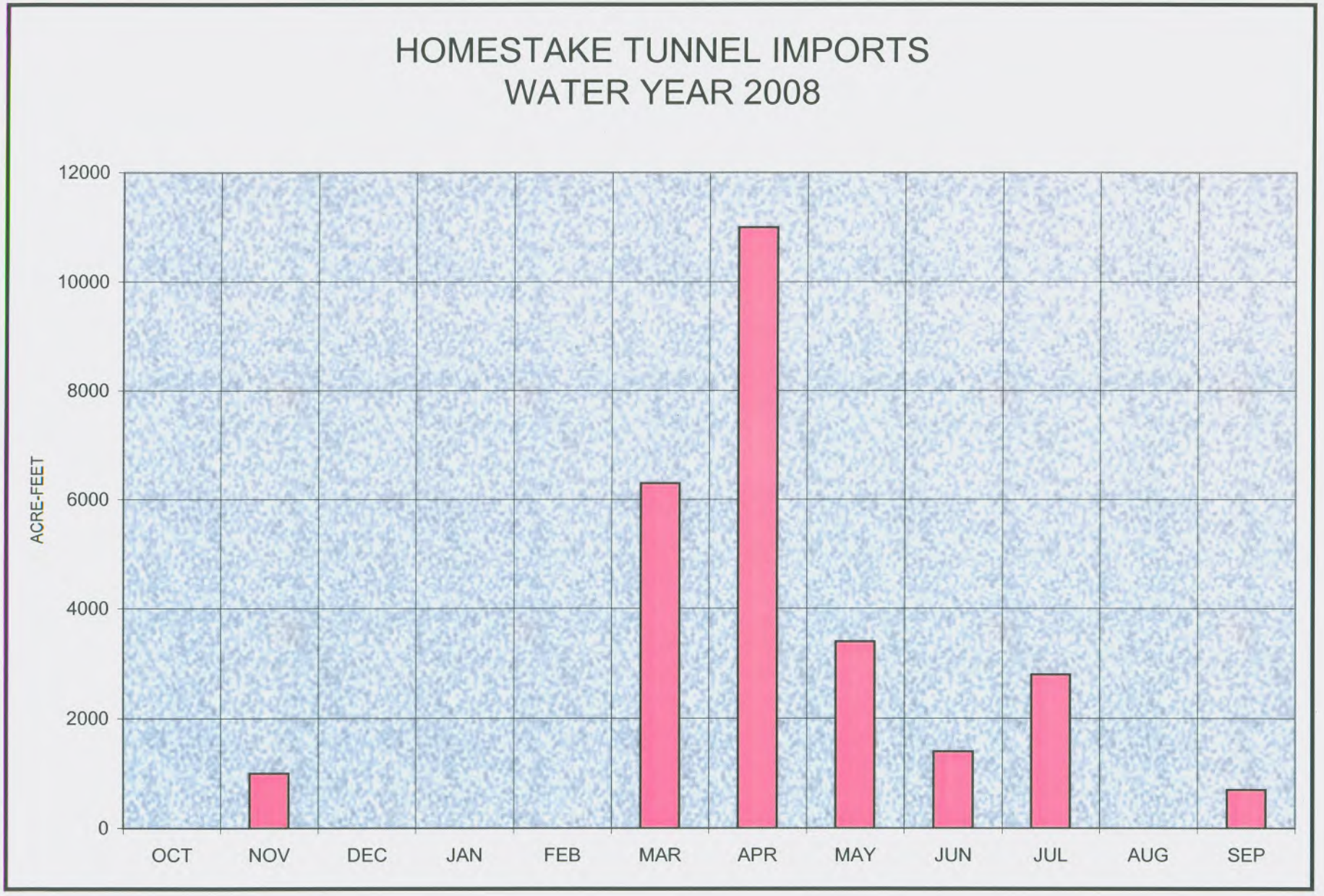

HOMESTAKE TUNNEL IMPORTS
WATER YEAR 2008
ACRE-FEET
12000
10000
8000
6000
4000
2000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 6

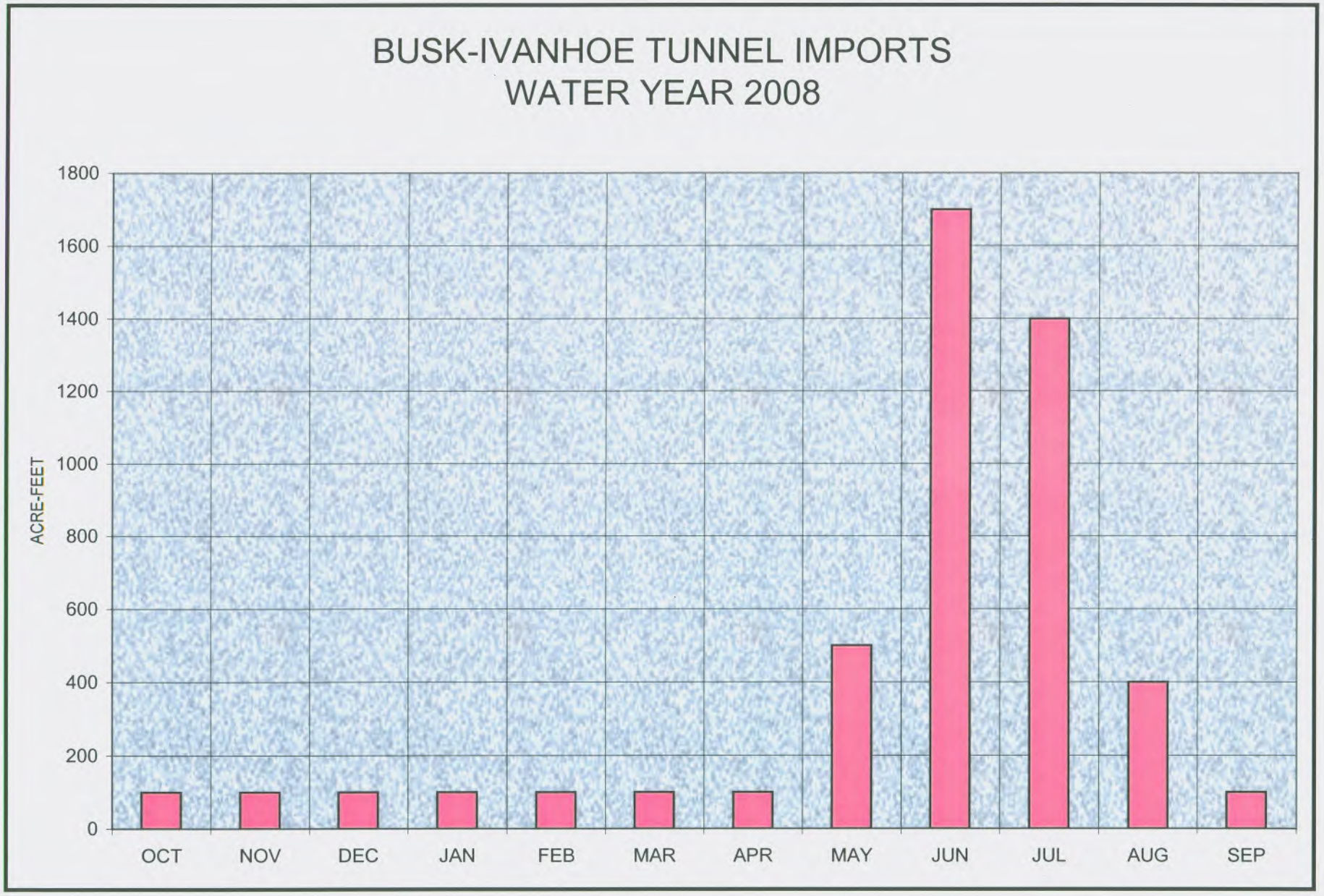

BUSK-IVANHOE TUNNEL IMPORTS
WATER YEAR 2008
ACRE-FEET
1800
1600
1400
1200
1000
800
600
400
200
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 7

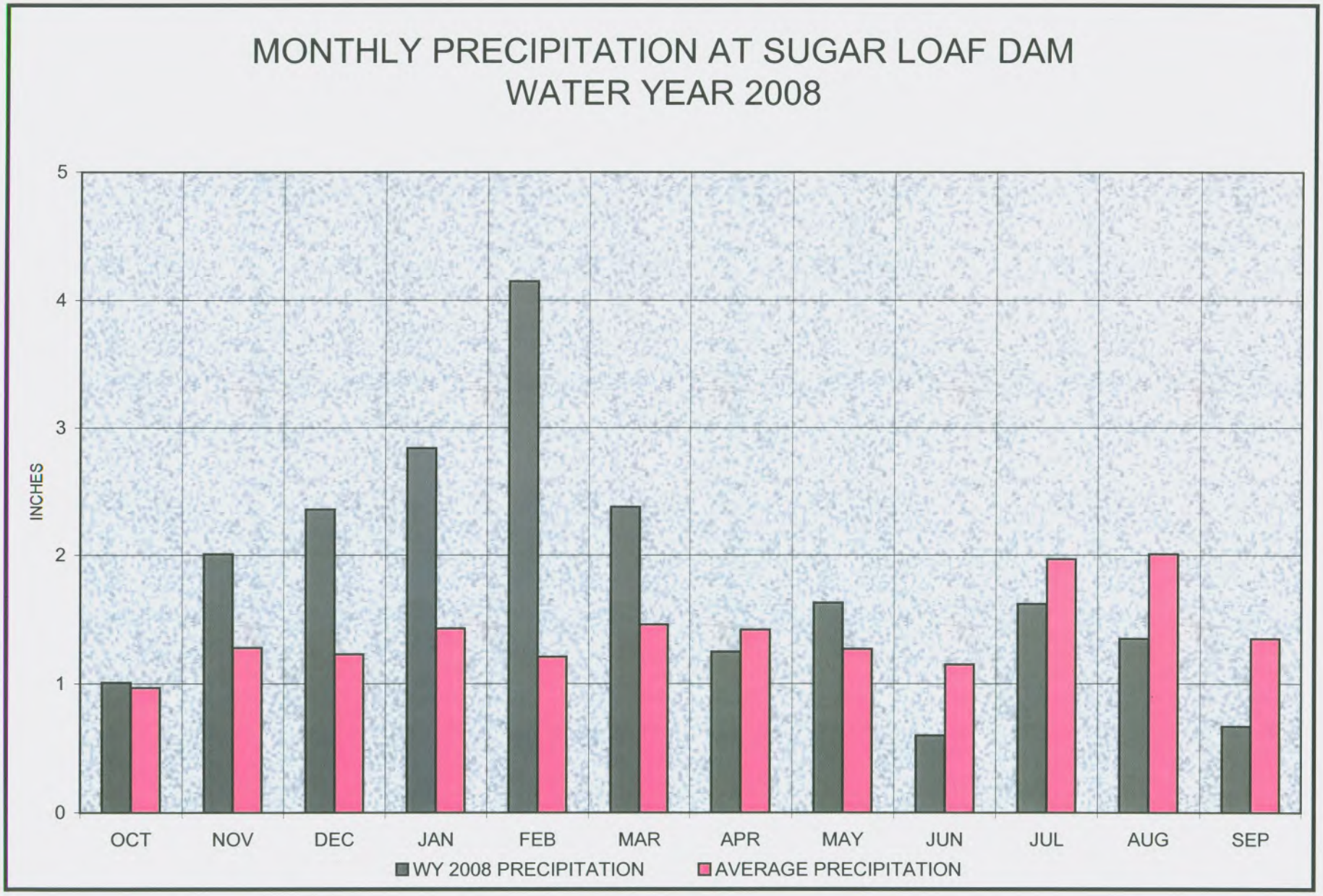

MONTHLY PRECIPITATION AT SUGAR LOAF DAM
WATER YEAR 2008
INCHES
0
1
2
3
4
5
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 PRECIPITATION
AVERAGE PRECIPITATION

Exhibit 8

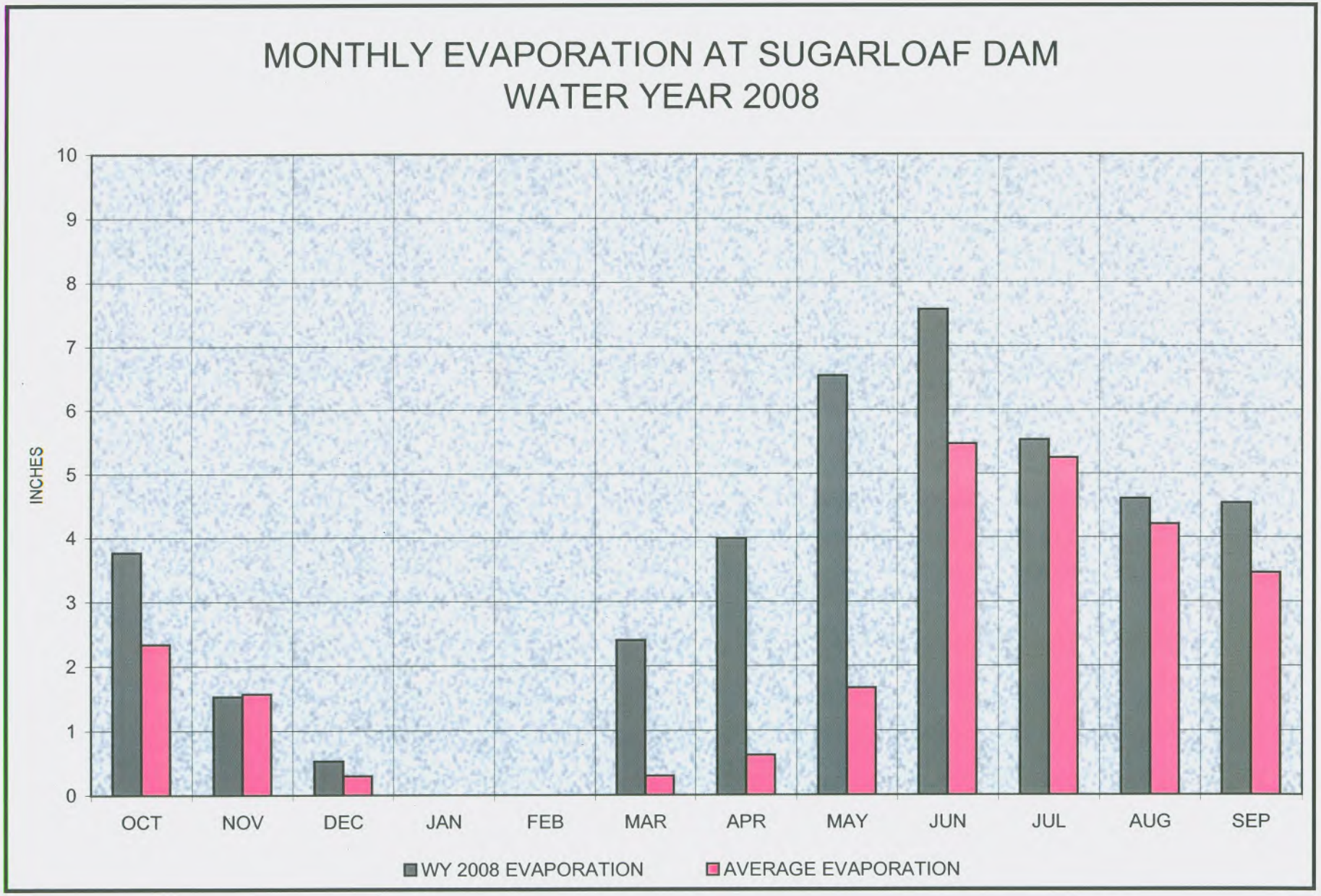

MONTHLY EVAPORATION AT SUGARLOAF DAM
WATER YEAR 2008
INCHES
10
9
8
7
6
5
4
3
2
1
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 EVAPORATION
AVERAGE EVAPORATION

Exhibit 9

TURQUOISE LAKE
WATER YEAR 2008 ACTUAL OPERATIONS

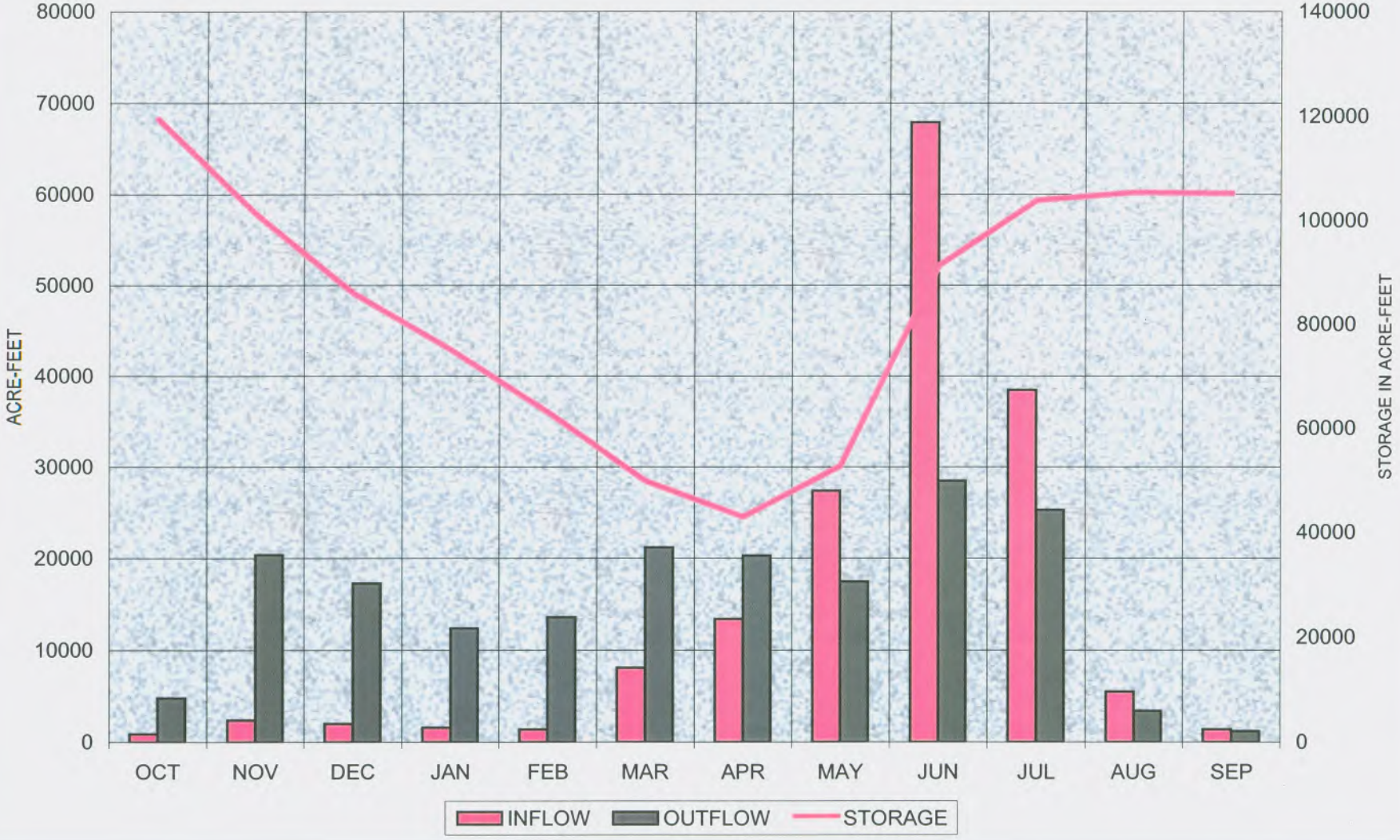


Exhibit 10

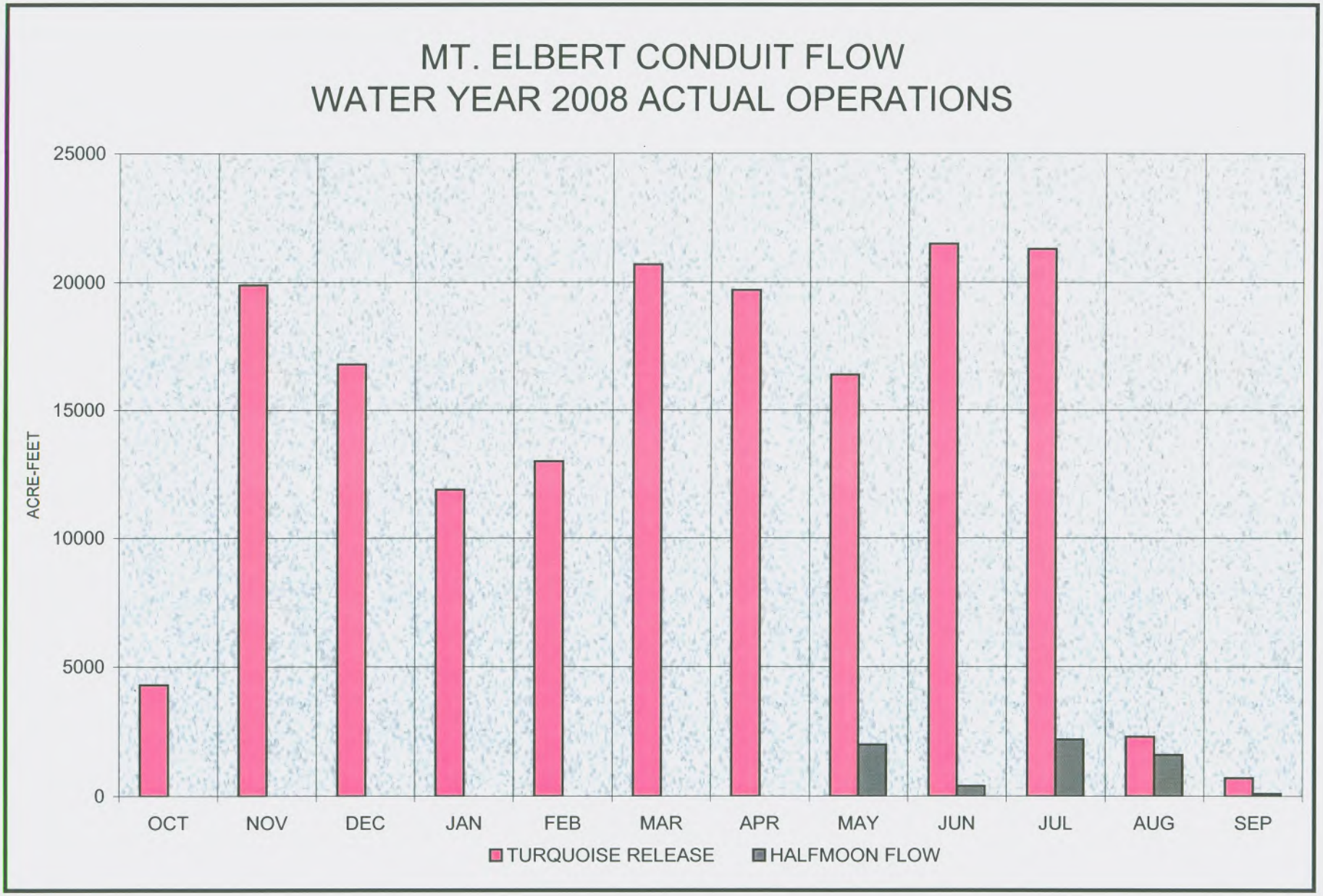

MT. ELBERT CONDUIT FLOW
WATER YEAR 2008 ACTUAL OPERATIONS
ACRE-FEET
25000
20000
15000
10000
5000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
TURQUOISE RELEASE
HALFMOON FLOW

Exhibit 11

MONTHLY PRECIPITATION AT TWIN LAKES DAM
WATER YEAR 2008

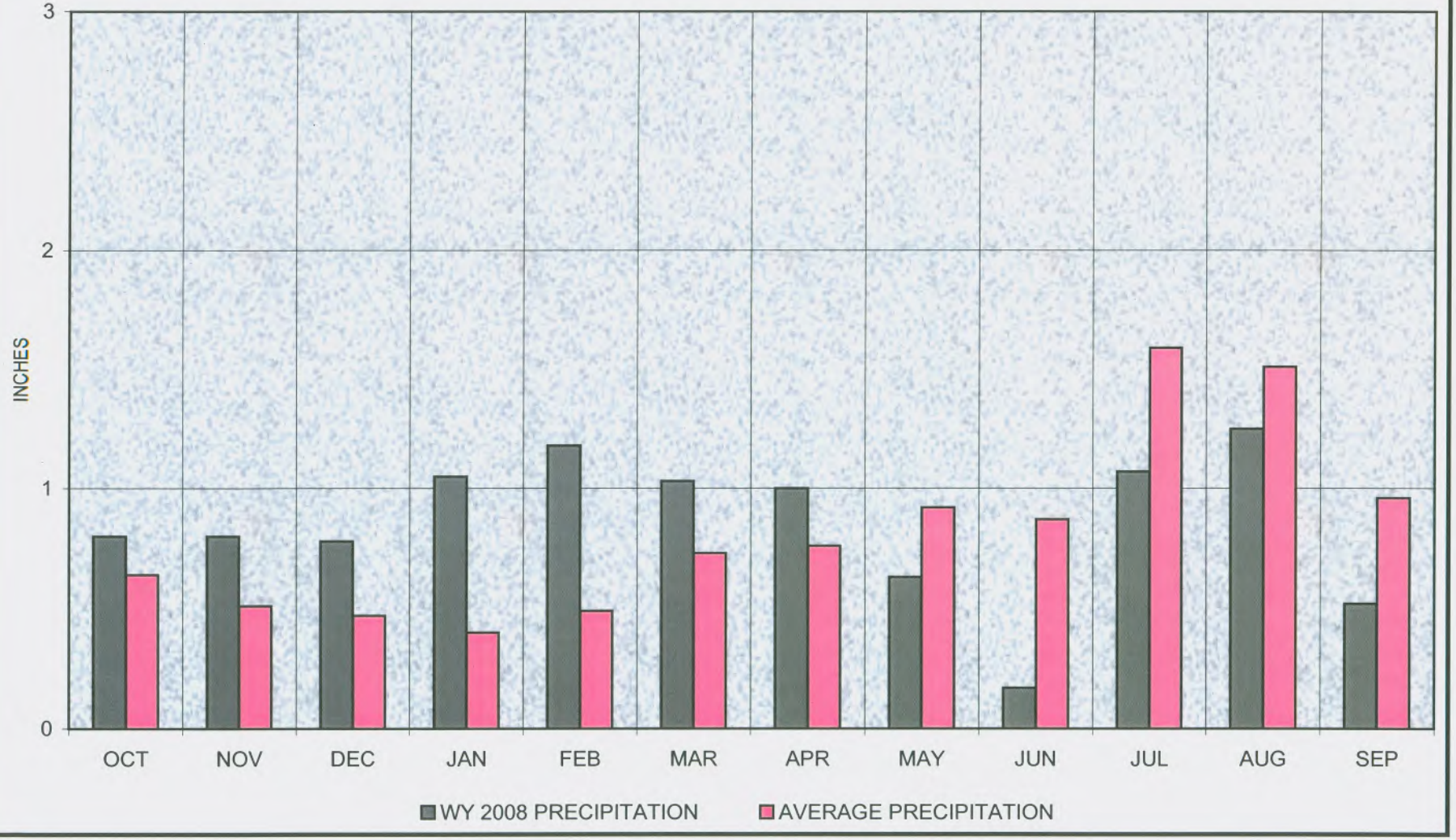


Exhibit 12

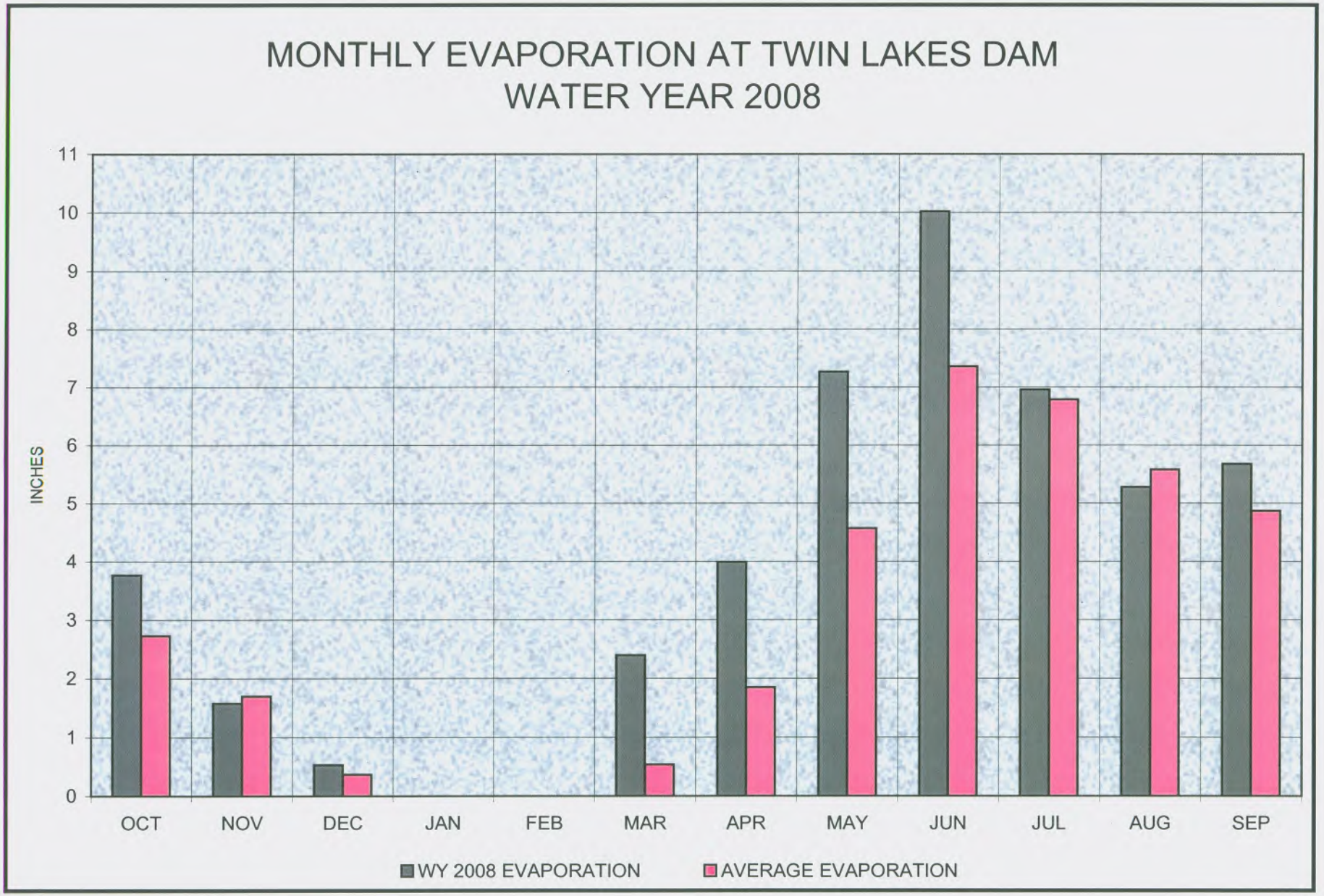

MONTHLY EVAPORATION AT TWIN LAKES DAM
WATER YEAR 2008
INCHES
11
10
9
8
7
6
5
4
3
2
1
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 EVAPORATION
AVERAGE EVAPORATION

Exhibit 13

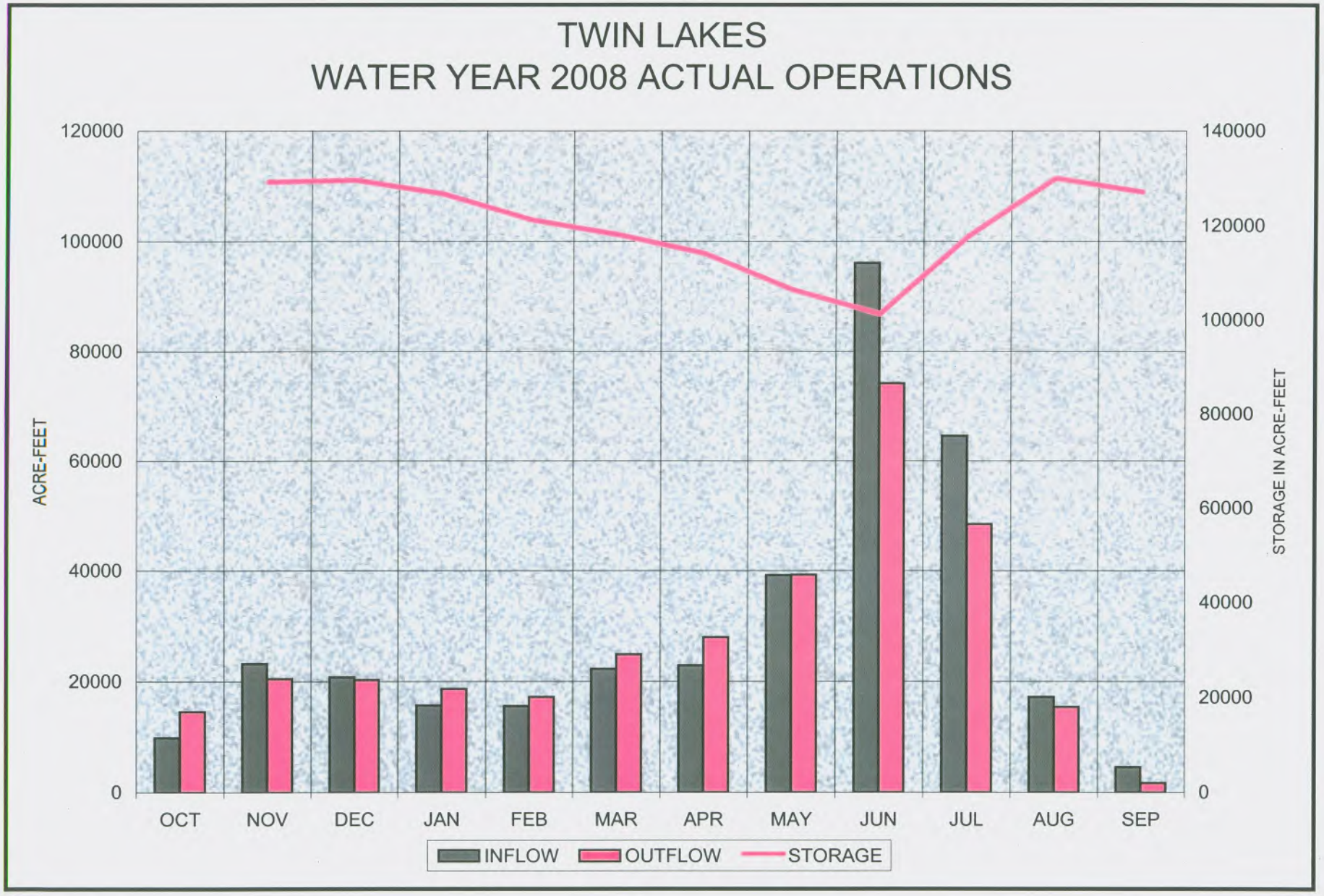

TWIN LAKES
WATER YEAR 2008 ACTUAL OPERATIONS
ACRE-FEET
STORAGE IN ACRE-FEET
120000
100000
80000
60000
40000
20000
0
140000
120000
100000
80000
60000
40000
20000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
INFLOW
OUTFLOW
STORAGE

Exhibit 14

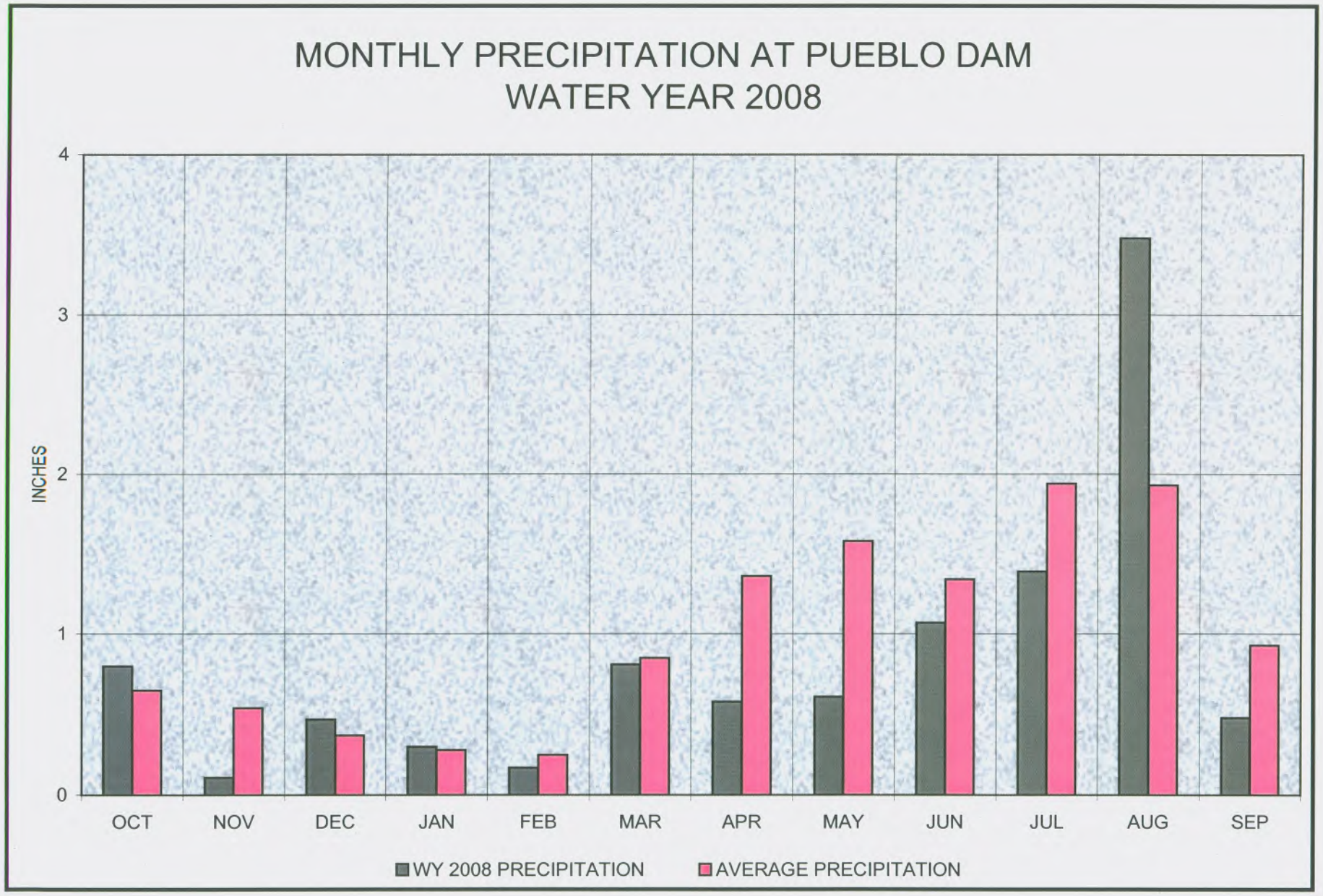

MONTHLY PRECIPITATION AT PUEBLO DAM
WATER YEAR 2008
INCHES
4
3
2
1
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 PRECIPITATION
AVERAGE PRECIPITATION

Exhibit 15

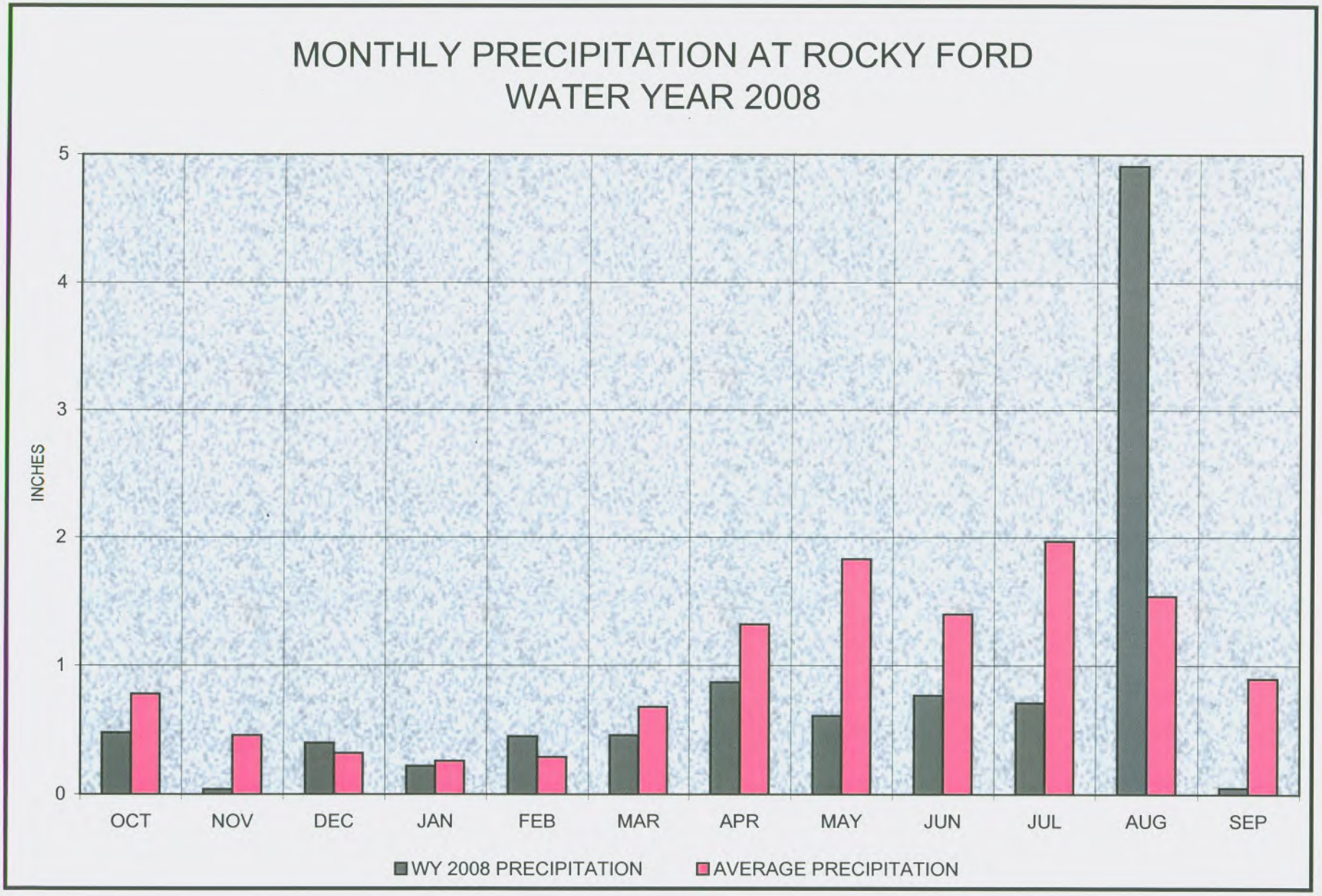

MONTHLY PRECIPITATION AT ROCKY FORD
WATER YEAR 2008
INCHES
0
1
2
3
4
5
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 PRECIPITATION
AVERAGE PRECIPITATION

Exhibit 16

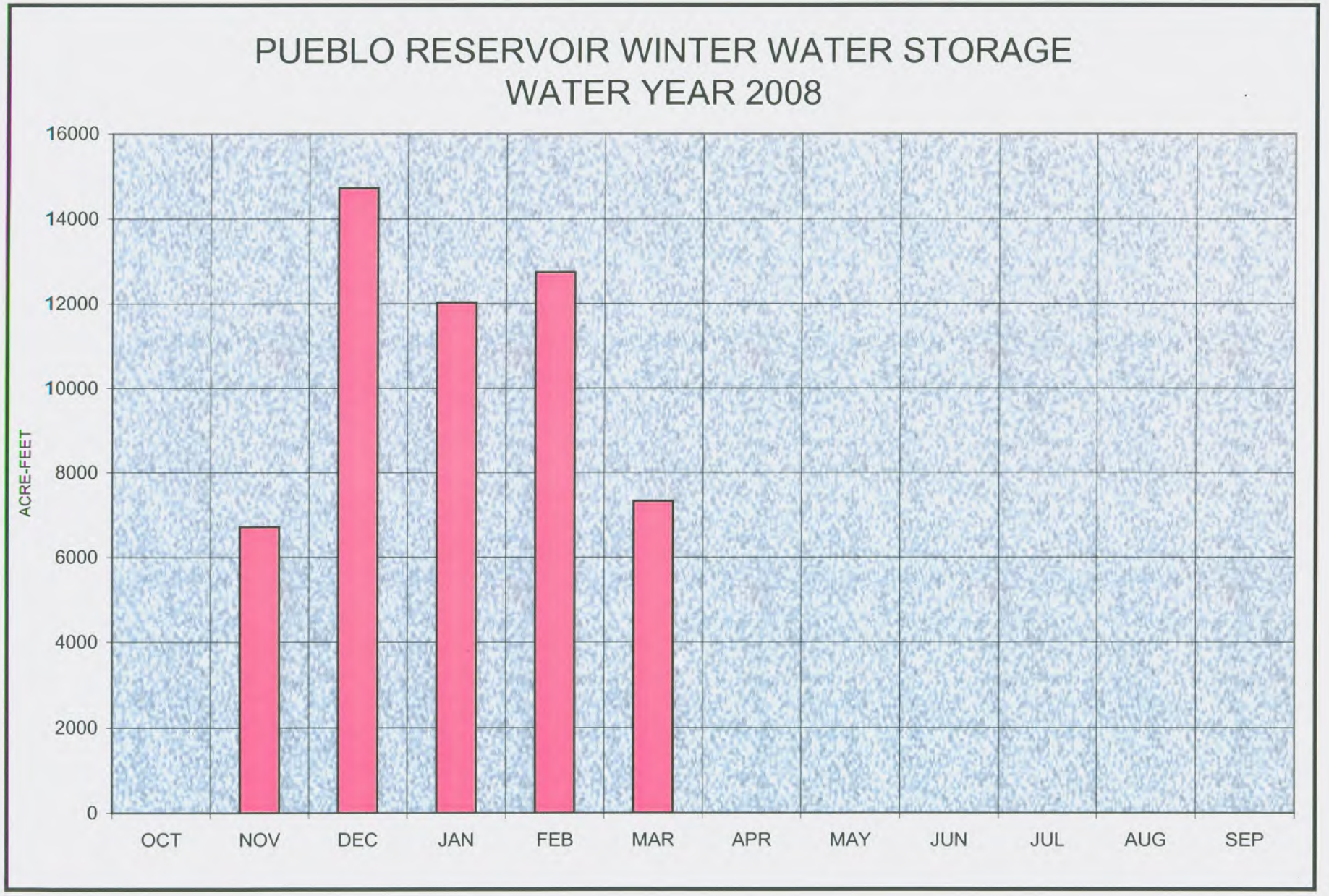

PUEBLO RESERVOIR WINTER WATER STORAGE
WATER YEAR 2008
ACRE-FEET
16000
14000
12000
10000
8000
6000
4000
2000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 17

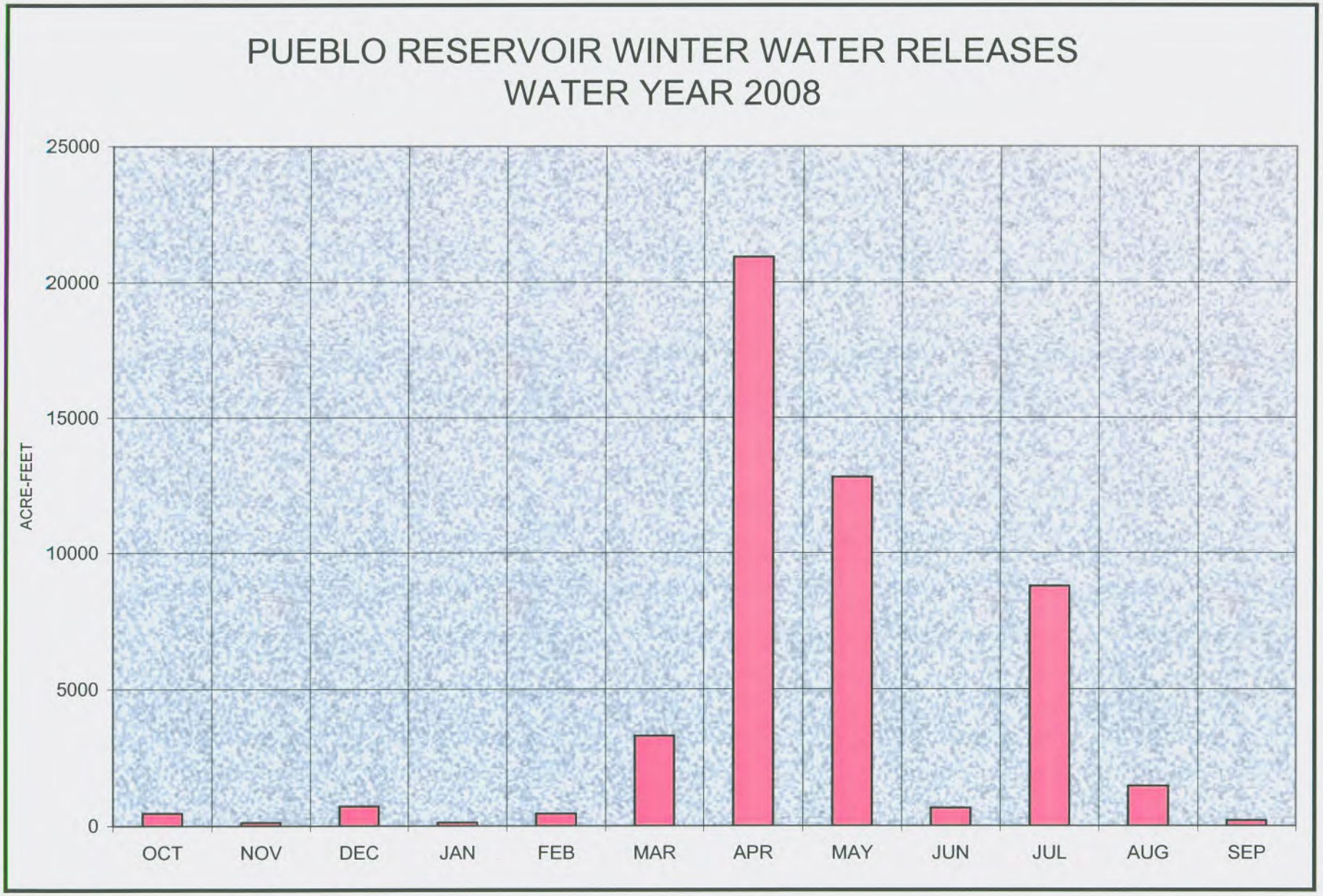

PUEBLO RESERVOIR WINTER WATER RELEASES
WATER YEAR 2008
ACRE-FEET
25000
20000
15000
10000
5000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Exhibit 18

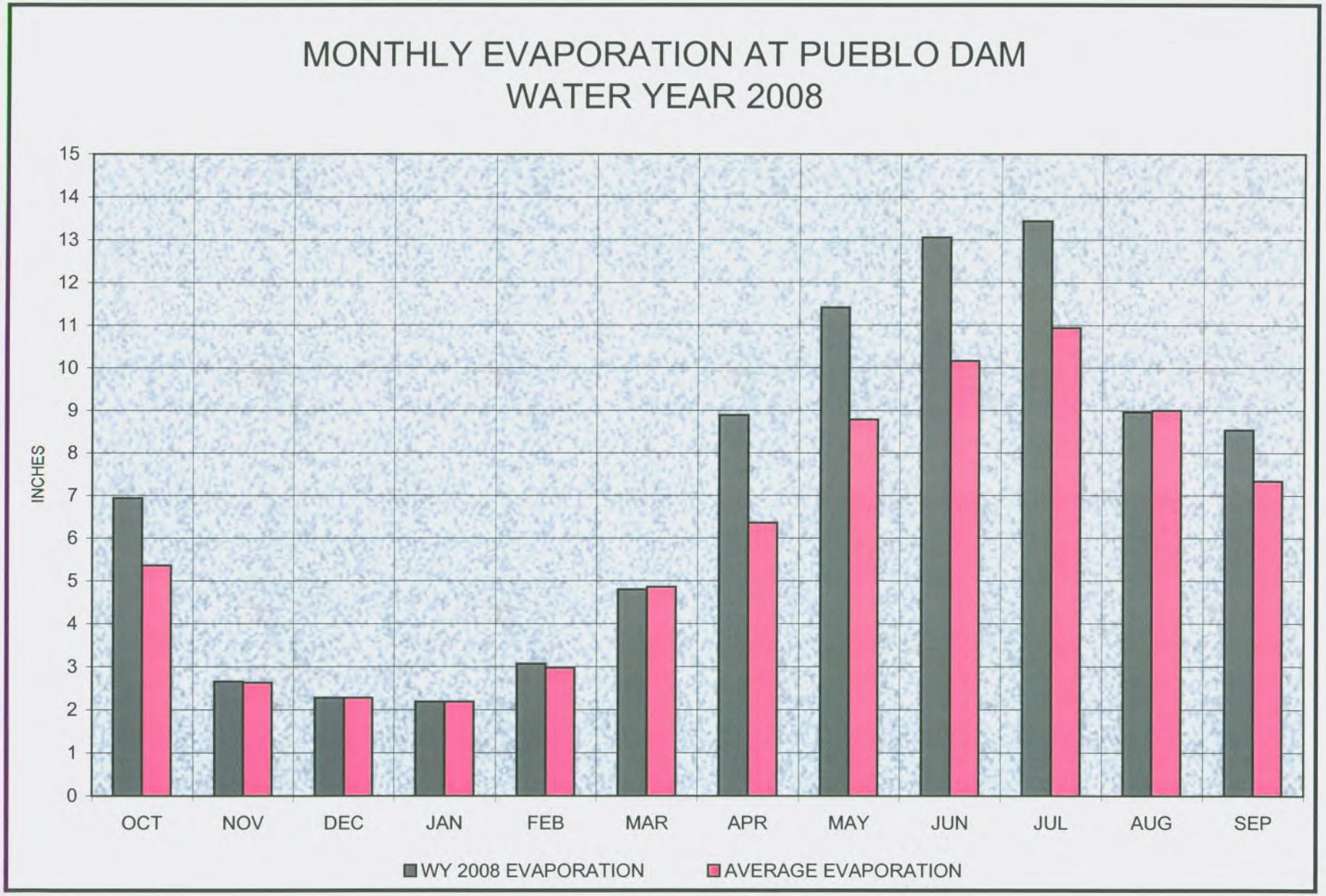

MONTHLY EVAPORATION AT PUEBLO DAM
WATER YEAR 2008
INCHES
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
WY 2008 EVAPORATION
AVERAGE EVAPORATION

Exhibit 19

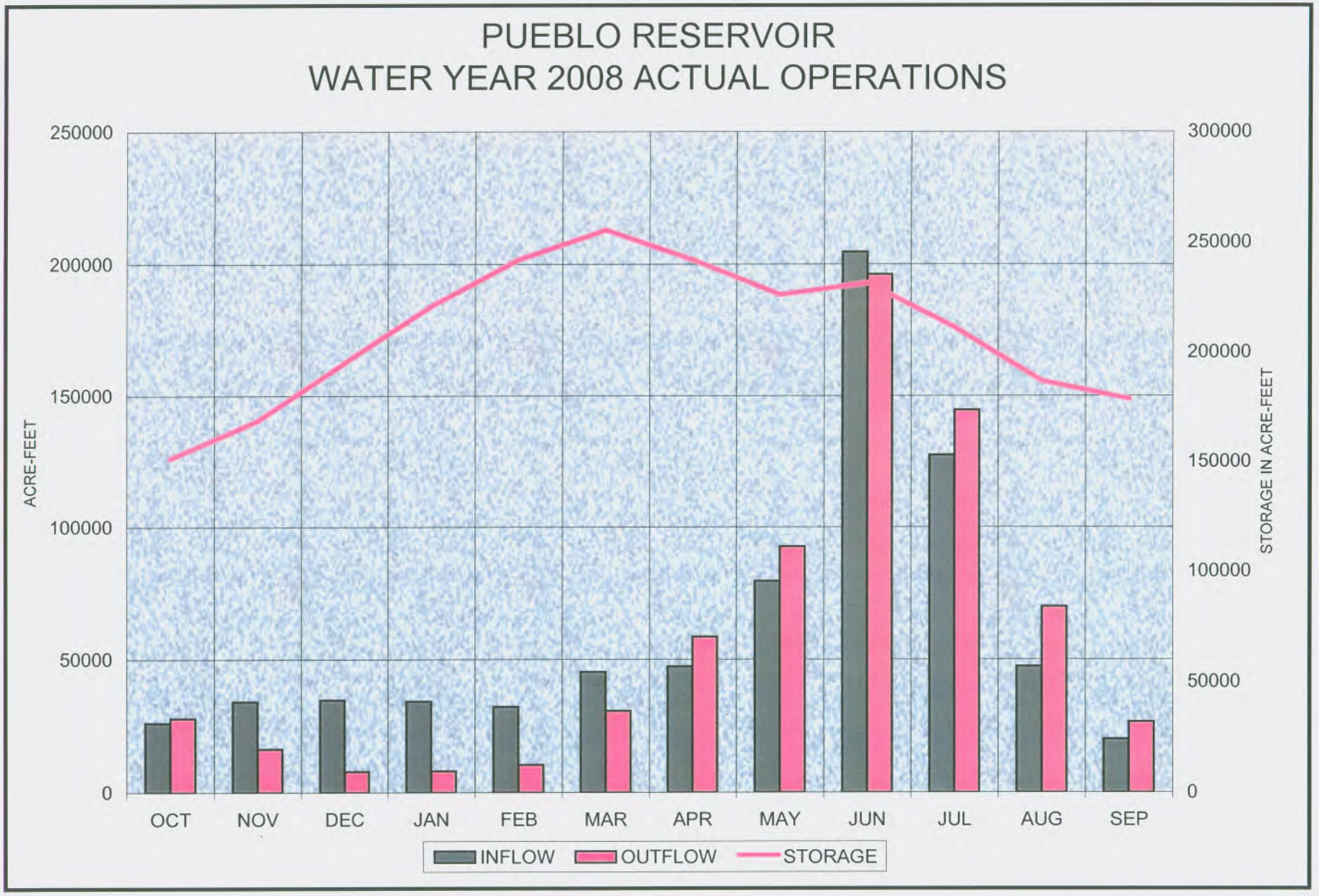

PUEBLO RESERVOIR
WATER YEAR 2008 ACTUAL OPERATIONS
ACRE-FEET
STORAGE IN ACRE-FEET
250000
200000
150000
100000
50000
0
300000
250000
200000
150000
100000
50000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
INFLOW
OUTFLOW
STORAGE

Exhibit 20

PUEBLO RESERVOIR PROJECT WATER RELEASES
WATER YEAR 2008

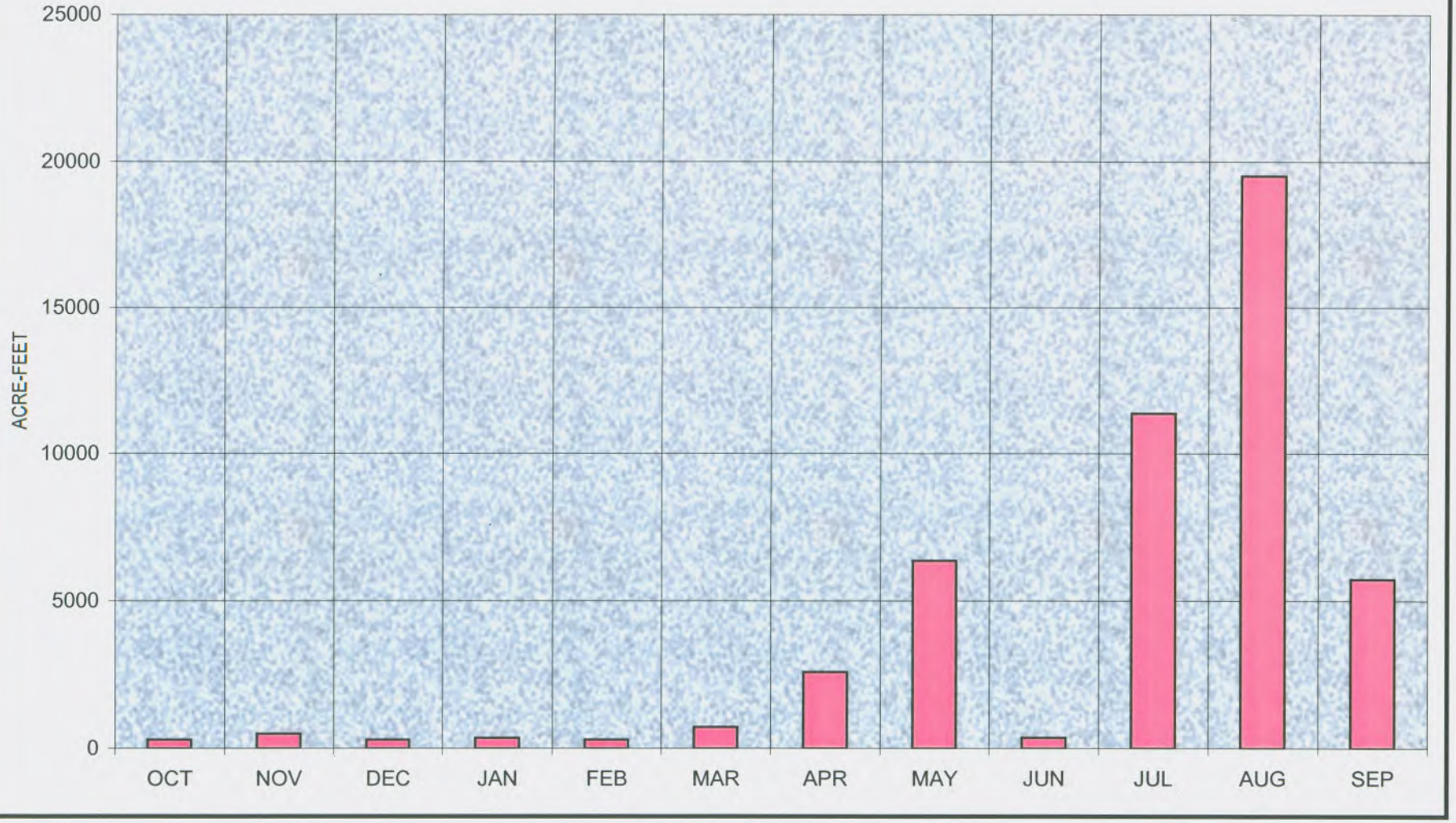


Exhibit 21

Twin Lakes Reservoir and Canal Company Exchange
with Fryingpan-Arkansas Project Water
2007-2008
Units = Acre-Feet

	Lincoln Creek below Grizzly Reservoir ([1])	Roaring Fork River above Lost Man Creek (2)	Total (1 + 2) (3)	Twin Lakes Storage (3) x 0.9913 [1] (4)
October	174	0	174	172
November	155	0	155	153
December	163	0	163	162
January	177	0	177	175
February	172	0	172	170
March	173	0	173	171
April	160	0	160	159
May	147	0	147	145
June	214	94	308	306
July	225	217	442	439
August	252	199	451	447
September	267	200	467	463
Total	2,279	710	2,989	2,962

[1] .87% 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

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 accounted as follows:

Month	Grizzly Diversion(ft^3/s)	Roaring Fork Diversion(ft^3/s)
October	3.0	0.0
November	3.0	0.0
December	3.0	0.0
January	3.0	0.0
February	3.0	0.0
March	3.0	0.0
April	3.0	0.0
May	3.0	0.0
June	4.0	4.0
July	4.0	4.0
August	4.0	3.0
September	4.0	3.0

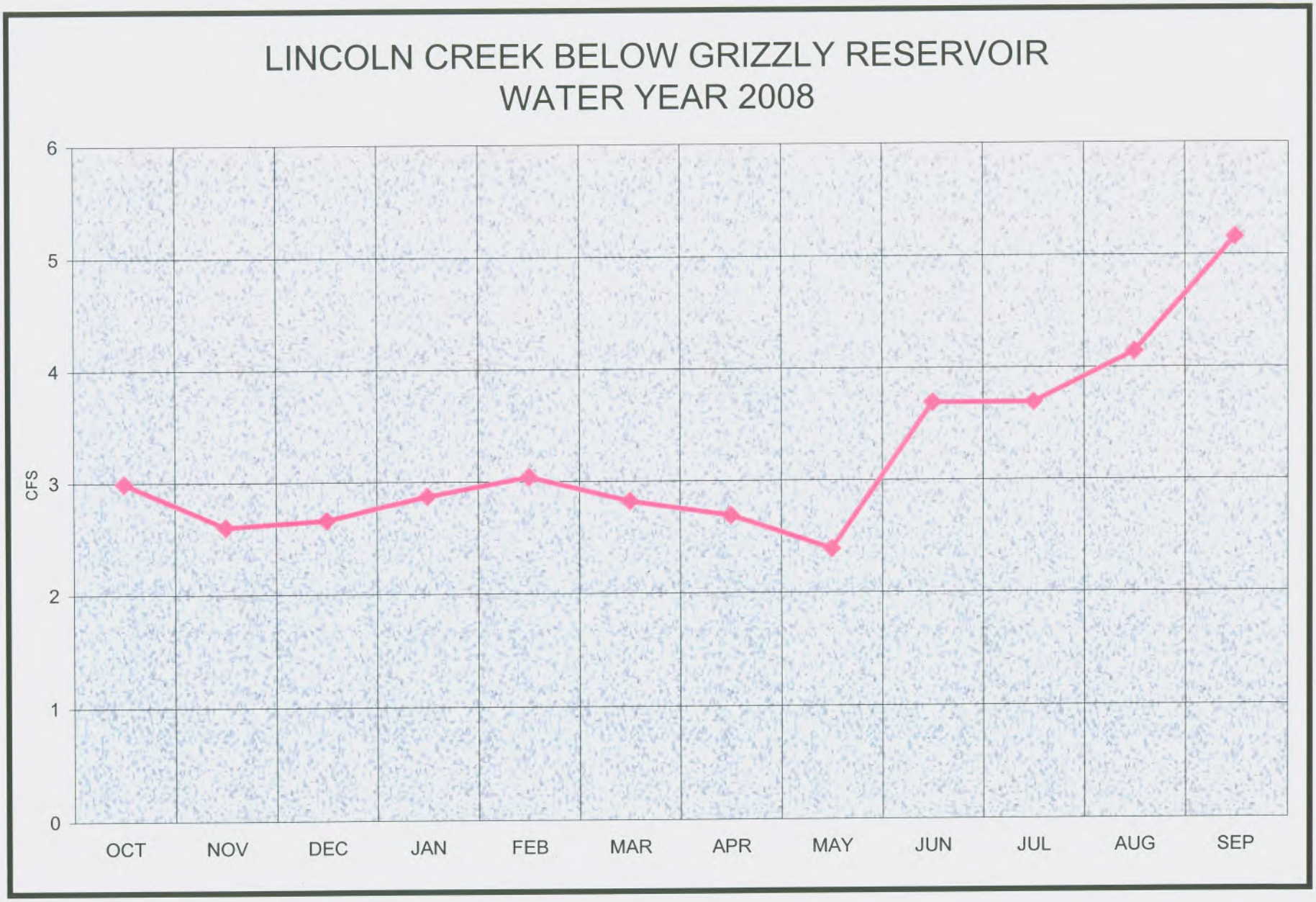
3. At any time the Twin Lakes Reservoir and Canal Company (Company) is bypassing water, in addition to that designated above, it will be assumed that the Company could not have diverted that water and will not receive any credit for exchange in excess of the above amounts.

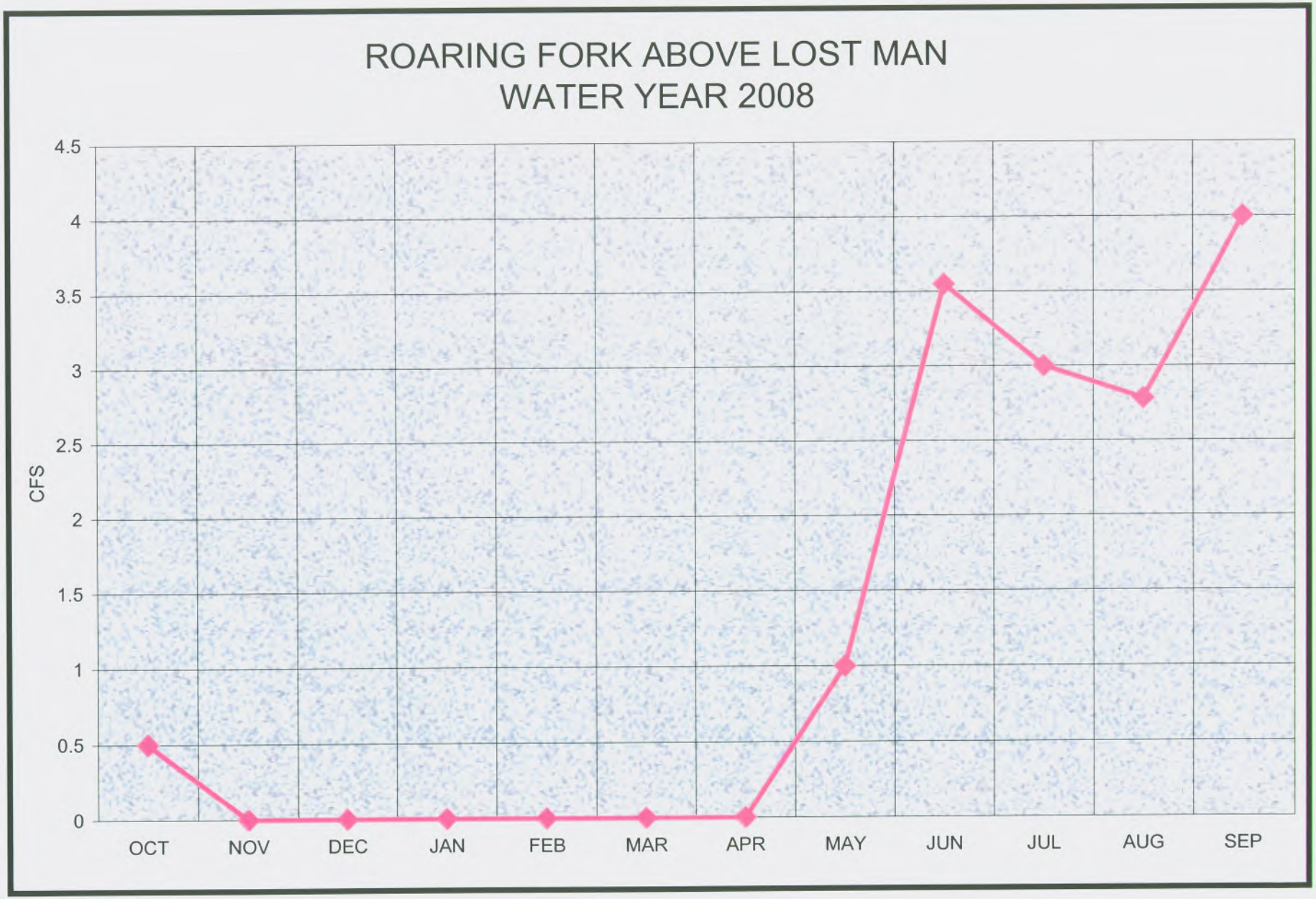
4. In the event less water than the above amounts is bypassed, only the amount actually bypassed will be credited.

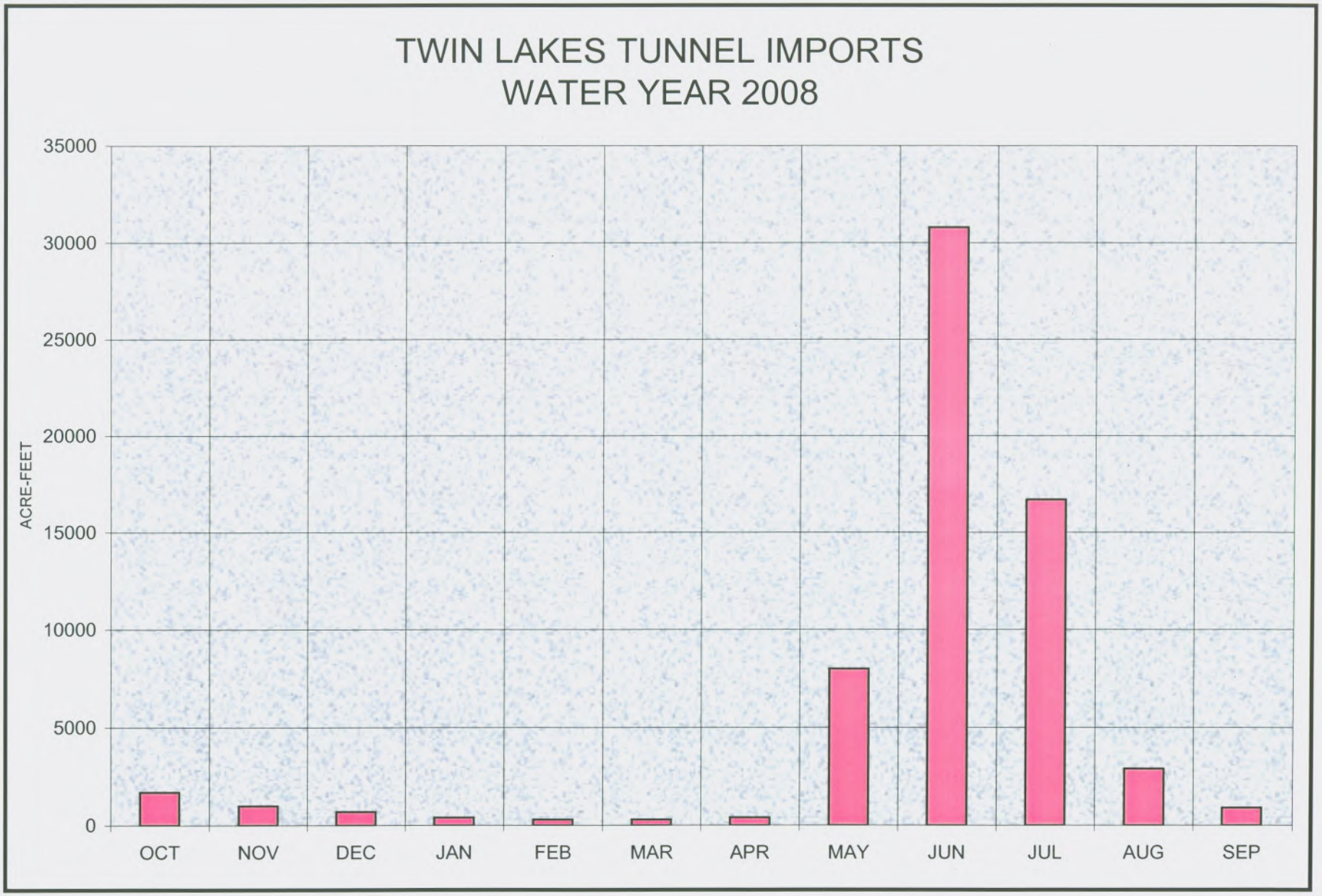
5. The total volume of the release at both gages combined shall not exceed 3,000 acre-feet in any one water year.

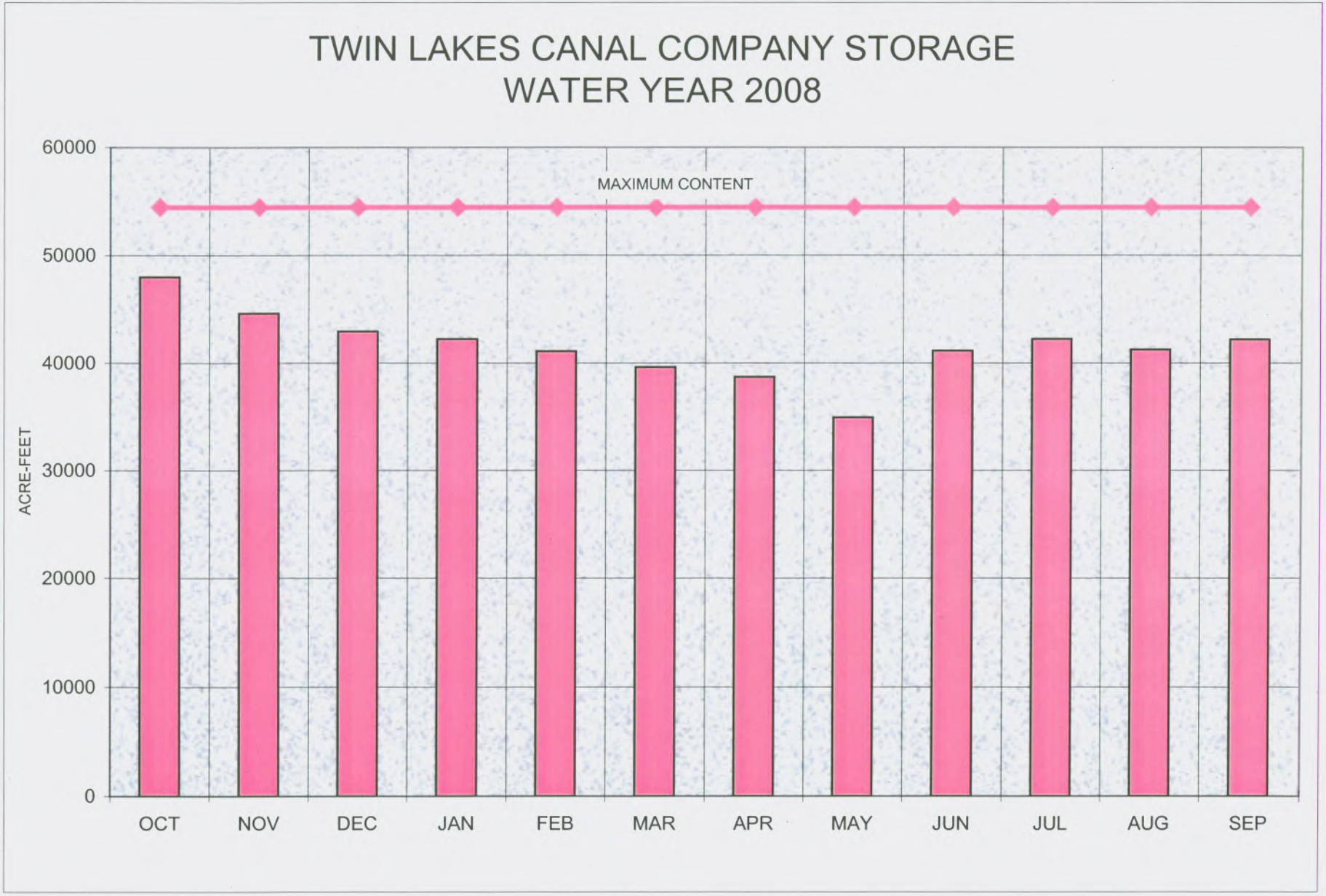
6. No credit for exchange will be made on days when there is no documentation of such bypasses.

7. No credit will be given for water bypassed when diversions are called out by the State Engineer.


LINCOLN CREEK BELOW GRIZZLY RESERVOIR
WATER YEAR 2008
CFS
0
1
2
3
4
5
6
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


ROARING FORK ABOVE LOST MAN
WATER YEAR 2008
CFS
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


TWIN LAKES TUNNEL IMPORTS
WATER YEAR 2008
ACRE-FEET
35000
30000
25000
20000
15000
10000
5000
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


TWIN LAKES CANAL COMPANY STORAGE
WATER YEAR 2008
60000
50000
40000
30000
20000
10000
0
ACRE-FEET
MAXIMUM CONTENT
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

Appendix D (1 of 15)
Carter Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1		2	40	38	11	
2		2	40	38	11	
3		1	42	33	8	
4		1	33	36	8	
5		1	25	37	8	
6		1	20	42	13	
7			25	47	10	
8			29	36	21	
9		1	18	33	15	
10		3	21	29	16	
11		2	29	32	14	
12		1	16	29	11	
13		1	11	28	8	
14		1	21	25	6	
15		1	36	23	5	
16		1	36	24	5	
17		2	32	21	5	
18		7	35	21	4	
19		19	36	19	3	
20		23	33	18	3	
21		25	34	18	3	
22		26	30	19	3	
23		16	31	23	2	
24		11	32	21	2	
25		10	36	17	2	
26		14	40	13	2	
27		19	37	13	2	
28		28	37	16	1	
29	1	31	37	21		
30	2	29	38	13		
31		31		11		
Total	3	310	930	794	202	
Mean	2	11	31	26	7	
Max	2	31	42	47	21	
Min	1	1	11	11	1	
Acre-Feet	6	615	1845	1575	401	

Water year total: 4,442 acre-feet
Maximum instantaneous peak: 62 cubic feet per second – July 6
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (2 of 15)
North Fork Fryingpan River Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			8	11	2	
2			9	11	1	
3			10	11	1	
4			11	10	1	
5			9	10	1	
6			7	10	1	
7			5	10	1	
8			6	11	2	
9			6	10	2	
10			5	9	2	
11			5	8	2	
12			6	8	2	
13			5	7	2	
14			4	6	1	
15			6	6	1	
16			9	5	1	
17			11	5		
18			11	5		
19			11	4		
20		1	11	4		
21		4	11	3		
22		6	10	3		
23		5	10	3		
24		2	10	3		
25		1	11	2		
26		1	11	2		
27		2	11	2		
28		3	11	2		
29		6	11	2		
30		7	11	2		
31		7		2		
Total		45	262	187	23	
Mean		4	9	6	1	
Max		7	11	11	2	
Min		1	4	2	1	
Acre-Feet		89	520	371	46	

Water year total: 1,026 acre-feet
Maximum instantaneous peak: 12 cubic feet per second - June 21
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (3 of 15)
Mormon Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			48	56	5	
2			37	53	5	
3			26	48	4	
4			22	49	4	
5			19	50	4	
6			29	48	4	
7		3	37	51	7	
8		3	39	40	13	
9		1	28	34	7	
10			35	33	7	
11			41	31	10	
12		1	27	29	6	
13		1	24	26	4	
14			36	23	3	
15			46	21	3	
16			46	20	4	
17		3	46	20	5	
18		9	42	20	4	
19		16	34	16	4	
20		29	35	14	3	
21		41	39	15	1	
22		37	40	15		
23		19	41	13		
24		14	48	12		
25		14	51	9		
26		19	48	9		
27		27	41	9		
28		39	38	11		
29		44	48	9		
30		41	55	7		
31		44		6		
Total		405	1146	797	107	
Mean		20	38	26	5	
Max		44	55	56	13	
Min		1	19	6	1	
Acre-Feet		803	2273	1581	212	

Water year total: 4,869 acre-feet
Maximum instantaneous peak: 69 cubic feet per second — July 6
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (4 of 15)
North Cunningham Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			21	22	1	
2			18	21	1	
3			17	22	1	
4			17	20	1	
5			15	21		
6			13	20		
7		2	16	20	1	
8		3	17	16	3	
9		2	13	14	2	
10		2	16	14	2	
11		2	18	13	4	
12		3	12	12	2	
13		3	11	10	1	
14		1	17	9	1	
15			24	8	1	
16			20	7	1	
17		3	20	7	1	
18		7	20	7	1	
19		11	21	5	1	
20		16	26	5		
21		19	23	5		
22		18	20	5		
23		10	21	4		
24		7	20	4		
25		6	21	3		
26		9	20	3		
27		13	20	4		
28		18	20	4		
29		20	21	3		
30		19	20	2		
31		20		2		
Total		214	558	312	25	
Mean		9	19	10	1	
Max		20	26	22	4	
Min		1	11	2	1	
Acre-Feet		424	1107	619	50	

Water year total: 2,200 acre-feet
Maximum instantaneous peak: 48 cubic feet per second — July 3
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (5 of 15)
Middle Cunningham Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			21	35	2	
2			23	35	2	
3			25	34	1	
4			22	33	1	
5			17	32	2	
6			16	30	1	
7			20	33	2	
8			19	43	3	
9			13	23	2	
10			16	20	3	
11			17	17	3	
12			12	16	2	
13			13	14	1	
14			18	13	1	
15			23	12	1	
16			24	11	1	
17			24	11	1	
18		1	25	9	1	
19		4	25	7	1	
20		9	24	7	1	
21		14	28	6	1	
22		11	29	6		
23		5	27	5		
24		4	26	5		
25		4	32	4	1	
26		6	30	3	1	
27		9	27	5		
28		11	27	5		
29		17	35	4		
30		16	34	3		
31		18		2		
Total		129	692	483	35	
Mean		9	23	16	2	
Max		18	35	43	3	
Min		1	12	2	1	
Acre-Feet		256	1373	958	69	

Water year total: 2,656 acre-feet
Maximum instantaneous peak: 47 cubic feet per second — June 29
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (6 of 15)
Ivanhoe Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1		6	92	82		
2		4	98	79		
3		3	95	74		
4		2	98	72		
5		2	86	71		
6		4	80	73		
7		10	90	75		
8		12	92	61		
9		9	67	60		
10		9	79	20		
11		7	95	14		
12		8	65	13		
13		7	48	11		
14		6	67	10		
15		5	85	9		
16		5	91	8		
17		9	85	7		
18		19	86	8		
19		33	92	7		
20		52	97	6		
21		74	96	5		
22		74	98	5		
23		41	99	5		
24		28	88	5		
25		22	88	5		
26		31	96	4		
27		44	114	4		
28		65	93	4		
29	1	80	90	4		
30	4	129	89	3		
31		112		2		
Total	5	912	2639	806		
Mean	3	29	88	26		
Max	4	129	114	82		
Min	1	2	48	2		
Acre-Feet	10	1809	5234	1599		

Water year total: 8,652 acre-feet
Maximum instantaneous peak: 151 cubic feet per second — May 30
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (7 of 15)
Lily Pad Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			16	12	1	
2			21	11	1	
3			22	10	1	
4			16	10	1	
5		1	13	10	1	
6		1	14	9	1	
7		1	16	11	2	
8		1	14	8	2	
9		1	14	7	2	
10		1	15	7	3	
11		1	16	6	3	
12		1	12	5	2	
13		1	11	5	1	
14		1	13	4	1	
15		1	18	4	1	
16		1	22	4	2	
17		1	23	3	2	
18		2	22	3	2	
19		4	25	3	1	
20		7	24	3	1	
21		8	22	2	1	
22		8	19	2	1	
23		7	19	3	1	
24		7	19	3	1	
25		6	21	2	1	
26		7	19	2	1	
27		8	17	2	1	
28		10	15	2		
29		13	15	2		
30		15	14	2		
31		16		1		
Total		131	527	158	38	
Mean		5	18	5	1	
Max		16	25	12	3	
Min		1	11	1	1	
Acre-Feet		260	1045	313	75	

Water year total: 1,693 acre-feet
Maximum instantaneous peak: 32 cubic feet per second — June 21
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (8 of 15)
Granite Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1		1	26	31	4	
2		1	30	28	4	
3		1	31	26	4	
4		1	27	25	4	
5		1	23	23	6	
6		1	21	22	6	
7		2	24	23	8	
8		2	24	18	8	
9		1	20	17	5	
10		1	23	16	7	
11		1	25	15	6	
12		1	19	14	5	
13		1	17	13	4	
14		1	22	12	4	
15		1	29	11	4	
16		1	34	10	4	
17	1	2	36	10	4	
18	1	3	37	9	3	
19	1	5	39	8	3	
20	1	6	38	8	3	
21	1	12	37	7	4	
22	1	15	35	7	2	
23	1	10	35	8	2	
24	1	8	35	8	2	
25	1	8	35	7	2	
26	1	10	36	6	2	
27	1	12	35	7	2	
28	1	17	33	7		
29	1	20	34	6		
30	1	21	33	5		
31		23		5		
Total	14	190	893	412	112	
Mean	1	6	30	13	4	
Max	1	23	39	31	8	
Min	1	1	17	5	2	
Acre-Feet	28	377	1771	817	222	

Water year total: 3,215 acre-feet
Maximum instantaneous peak: 41 cubic feet per second — June 16
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (9 of 15)
No Name Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			51	19		
2			49	27		
3			38	32		
4			31	30		
5			36	28		
6			27	26		
7			43	23		
8			48	23		
9			42	20		
10			49	18		
11			35	15		
12			27	11		
13			25	6		
14			25	2		
15			14			
16			29			
17			45			
18		1	46			
19		9	10			
20		19				
21		30				
22		33	7			
23		17	14			
24		10	32			
25		12	41			
26		20	31			
27		26	26			
28		37	19			
29		45	21			
30		45	21			
31		47				
Total		351	882	280		
Mean		25	32	20		
Max		47	51	32		
Min		1	7	2		
Acre-Feet		696	1749	555		

Water year total: 3,000 acre-feet
Maximum instantaneous peak: 80 cubic feet per second - June 16
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (10 of 15)
Midway Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			28	62		
2			43	57		
3			52	62		
4			44	76		
5			36	79		
6			20	79		
7			38	79		
8			19	75		
9			27	60		
10			78	55		
11			41	51		
12			50	64		
13			50	57		
14			43	51		
15			41	48		
16			24	42		
17			20	38		
18			19	32		
19			19	30		
20			10	27		
21			37	22		
22			55	21		
23		3	59	18		
24		17	42	16		
25		26	64	14		
26		29	67	13		
27		33	70	12		
28		21	78	13		
29		14	79	11		
30		13	78	2		
31		19				
Total		175	1331	1266		
Mean		19	44	42		
Max		33	79	79		
Min		3	10	2		
Acre-Feet		347	2640	2511		

Water year total: 5,498 acre-feet
Maximum instantaneous peak: 100 cubic feet per second — June 22
Note: All blank spaces, recorder was not operated; no water was diverted..

Appendix D (11 of 15)
Hunter Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			63	96		
2			51	81		
3			75	76		
4			79	78		
5			52	77		
6			39	69		
7			60	85		
8			65	66		
9			49	57		
10			67	55		
11			69	50		
12			43	44		
13			41	38		
14			66	36		
15			87	35		
16			85	25		
17			83	22		
18			87	17		
19		9	87	12		
20		40	78	10		
21		60	86	2		
22		52	98			
23		21	102			
24		14	94			
25		12	84			
26		21	82			
27		37	77			
28		60	79			
29		72	79			
30		72	98			
31		72				
Total		542	2205	1031		
Mean		42	74	49		
Max		72	102	96		
Min		9	39	2		
Acre-Feet		1075	4374	2045		

Water year total: 7,494 acre-feet
Maximum instantaneous peak: 121 cubic feet per second — June 15
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (12 of 15)
Sawyer Creek Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			42	45	17	
2			42	44	17	
3			42	43	16	
4			42	43	16	
5			40	46	16	
6			37	47	17	
7			39	48	22	
8		1	41	44	24	
9		1	37	41	21	
10		1	40	39	23	
11		1	45	38	22	
12		1	38	36	20	
13		1	35	34	18	
14		1	38	33	17	
15		1	49	32	17	
16		1	56	30	18	
17		1	55	29	17	
18		2	52	28	16	
19		3	45	27	15	
20		12	52	26	14	
21		22	54	25	14	
22		23	52	25	13	
23		22	51	25	13	
24		21	53	25	13	
25		21	55	23	13	
26		21	49	22	13	
27		24	48	21	12	
28		28	48	21		
29		35	47	21		
30		38	46	19		
31		40		18		
Total		322	1370	998	454	
Mean		13	46	32	17	
Max		40	56	48	24	
Min		1	35	18	12	
Acre-Feet		639	2717	1980	901	

Water year total: 6,237 acre-feet
Maximum instantaneous peak: 61 cubic feet per second — June 16
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (13 of 15)
Chapman Gulch Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			223	297	14	
2			219	288	13	
3			229	278	12	
4			223	265	14	
5			209	255	20	
6			168	234	13	
7			193	263	37	
8			238	230	36	
9			192	201	28	
10			227	189	36	
11			216	175	32	
12			151	159	24	
13			135	138	20	
14			158	121	18	
15			213	117	13	
16			259	100	13	
17			269	92	12	
18			297	78	15	
19		82	271	61	14	
20		119	278	52	14	
21		176	283	41	14	
22		177	289	40	14	
23		104	293	47	14	
24		64	300	40	14	
25		60	300	22	14	
26		93	294	13	14	
27		131	283	14	2	
28		191	278	21		
29		238	291	20		
30		231	296	20		
31		231		2		
Total		1897	7275	3873	484	
Mean		146	243	125	18	
Max		238	300	297	37	
Min		60	135	2	2	
Acre-Feet		3763	14430	7682	960	

Water year total: 26,835 acre-feet
Maximum instantaneous peak: 316 cubic feet per second — June 7
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (14 of 15)
South Fork Fryingpan River Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			109	143	8	
2			128	136	6	
3			128	130	5	
4			107	127	10	
5			80	123	16	
6		2	66	113	12	
7		3	83	116	19	
8		5	91	98	22	
9		6	72	87	21	
10		5	91	87	29	
11		3	96	80	25	
12		2	68	76	11	
13		2	61	68	5	
14		2	87	63	3	
15		2	121	61	3	
16		2	134	56	4	
17		4	138	55	2	
18		12	138	51		
19		26	144	45		
20		24	141	42		
21		73	138	39		
22		70	139	34		
23		43	140	39		
24		26	142	38		
25		25	144	31		
26		37	142	27		
27		51	136	30		
28		72	135	34		
29		85	142	32		
30		88	145	17		
31		96		10		
Total		766	3486	2088	201	
Mean		29	116	67	12	
Max		96	145	143	29	
Min		2	61	10	2	
Acre-Feet		1519	6914	4142	399	

Water year total: 12,974 acre-feet
Maximum instantaneous peak: 175 cubic feet per second — June 15
Note: All blank spaces, recorder was not operated; no water was diverted.

Appendix D (15 of 15)
Fryingpan River Feeder Conduit near Norrie, CO
Water Year 2008
Unit: Cubic Feet Per Second
Source: U.S. Bureau of Reclamation

Day	April	May	June	July	August	September
1			176	204	33	
2			202	182	30	
3			201	167	28	
4			174	161	30	
5			134	154	32	
6			115	142	27	
7			136	140	35	
8			137	123	38	
9			112	113	29	
10			133	109	37	
11			137	106	37	
12			103	100	28	
13			95	93	19	
14			120	86	14	
15			166	82	14	
16			209	79	15	
17			230	77	13	
18			221	74	9	
19			214	64	7	
20			207	62	6	
21		44	209	58	3	
22		113	207	57	1	
23		72	211	61		
24		49	217	62		
25		51	225	53		
26		65	202	49		
27		84	176	48		
28		116	181	53		
29		140	209	46		
30		141	217	40		
31		155		35		
Total		1030	5276	2880	485	
Mean		94	176	93	22	
Max		155	230	204	38	
Min		44	95	35	1	
Acre-Feet		2043	10465	5712	962	

Water year total : 19,182 acre-feet
Maximum instantaneous peak: 273 cubic feet per second — June 16
Note: All blank spaces, recorder was not operated; no water was diverted.

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

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.

"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 streamflows 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 streamflows 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 Second-feet	Acre-feet (thousands)	Month	Average Second-feet	Acre-feet (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	2.6
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.

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