

United States Department of the Interior

BUREAU OF RECLAMATION
Albuquerque Area Office
505 Marquette NW, Suite 1313
Albuquerque, New Mexico 87102-2162

IN REPLY REFER TO:
ALB-430
WTR-4.10

MAY 18 1998

To: Interested Individuals and Organizations

Subject: May 1998 Update of the Rio Grande Basin Operations Plan

Enclosed is your copy of our first monthly update. We are in the collective process of trying to make this product as useful as possible so you may notice changes from previous reports. We welcome any comments or suggestions you may have to improve the report. Please provide your comments or questions to Karl Martin (Reclamation-Albuquerque) at (505) 248-5321, Wayne Treers (Reclamation-El Paso) at (915) 534-6321, or Dick Kreiner (Corps of Engineers) at (505) 342-3383.

While it is our utmost intent to inform everyone of our operational plans, in the interest of saving paper, materials, handling, and mailing, we would like to limit our distribution of this to only those who desire or need this information. Therefore, if you would like to continue receiving this, please respond to Karl Martin by mail, phone, or e-mail (kmartin@uc.usbr.gov). If not, do nothing, and we will remove your mailing from the distribution. Of course, any time you wish to receive a copy, please contact us and we will be glad to send one.

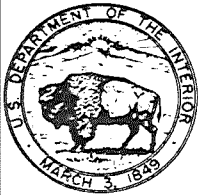
Sincerely,

FOR

Garry M. Rowe
Area Manager

Enclosure

u98 BOR pl nms
Art Bjorkdahl
Alb. BOR
file: main library
water resources



United States Department of the Interior

BUREAU OF RECLAMATION
Albuquerque Area Office
505 Marquette NW, Suite 1313
Albuquerque, New Mexico 87102-2162

IN REPLY REFER TO:
ALB-400
WTR-4.10

MAY 18 1998

To: Interested Individuals and Organizations

Subject: Errata Sheet for "1998 Rio Grande Basin Operations Plan," dated April 17, 1998

Please insert this communication in the subject operations plan. The following paragraph supersedes the final paragraph, "Operating Agreement," on page 12 of the document.

Operating Agreement: In December, 1984, Reclamation distributed a draft operating agreement which was developed by Reclamation, the IBWC, Elephant Butte Irrigation District, and El Paso Water Improvement District No. 1. This draft plan has not been officially approved nor signed. The draft plan, however, has been utilized during the operations of the 1985 through 1997 irrigation seasons, and will continue to be in effect for the 1998 irrigation season operations.

Sincerely,

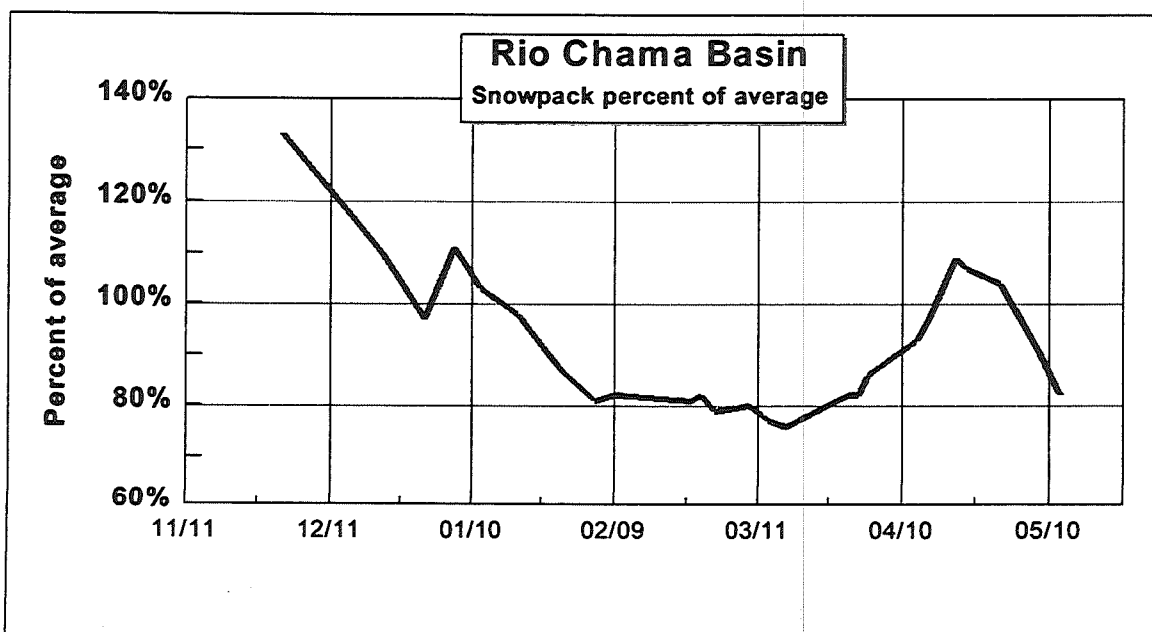
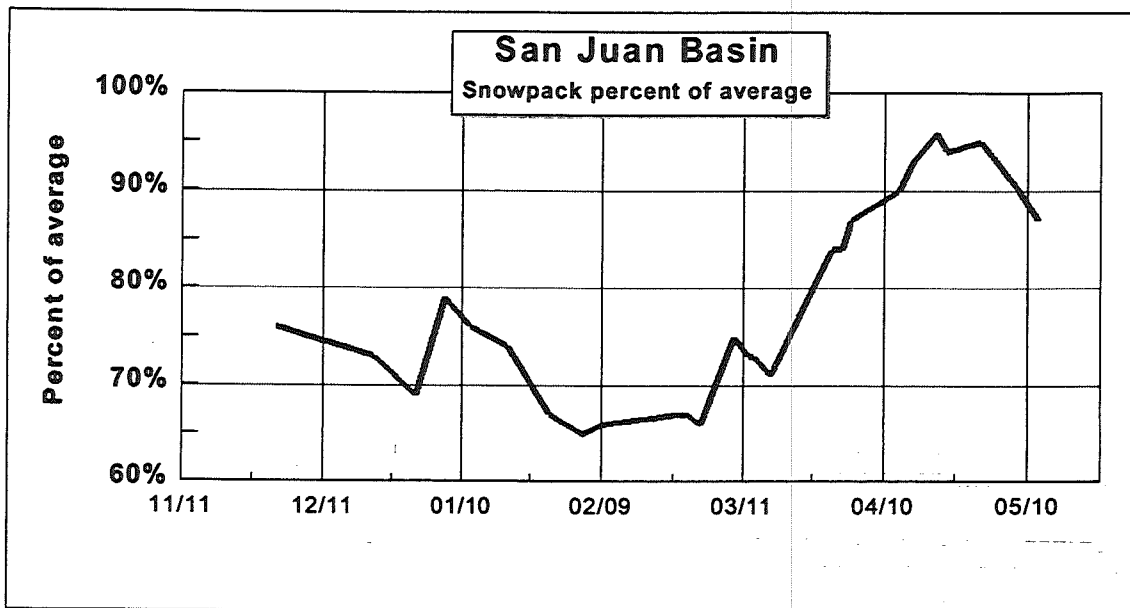
FOR
—

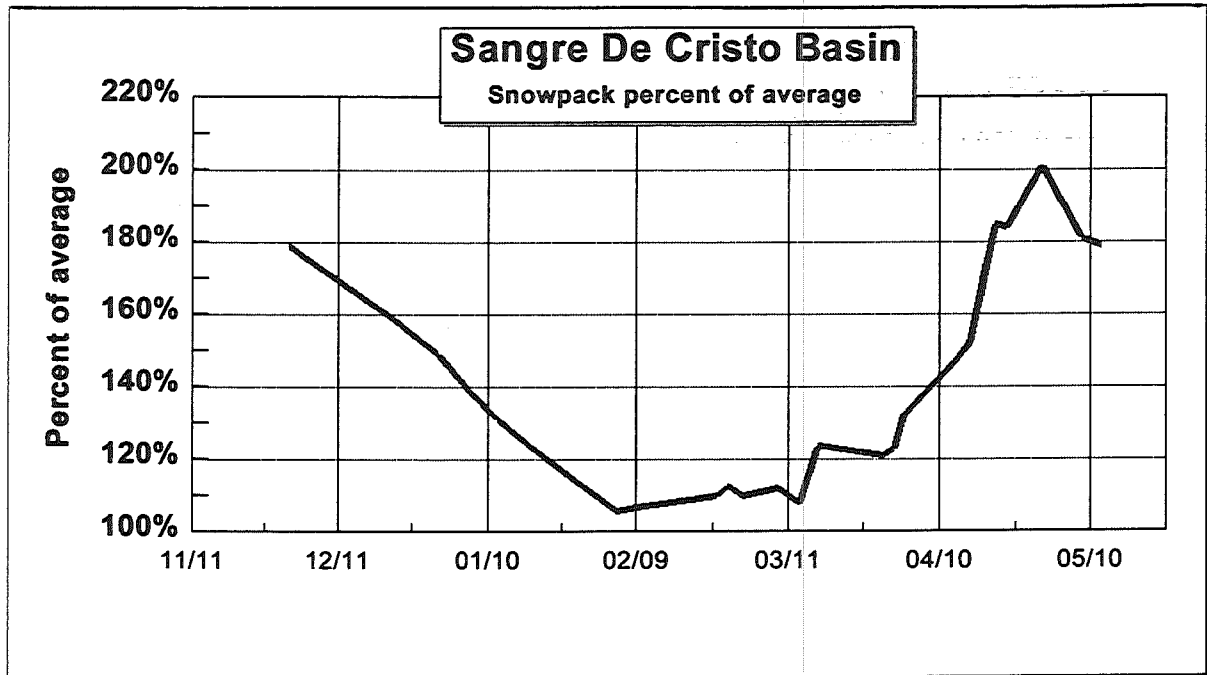
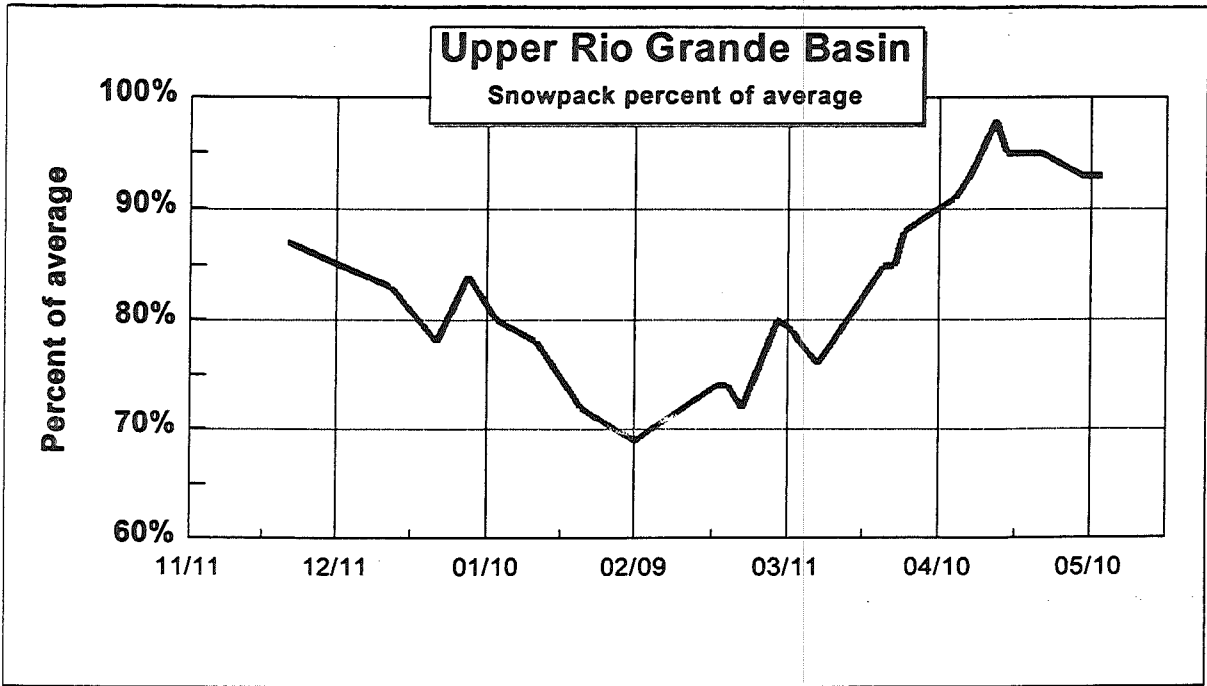
Garry M. Rowe
Area Manager

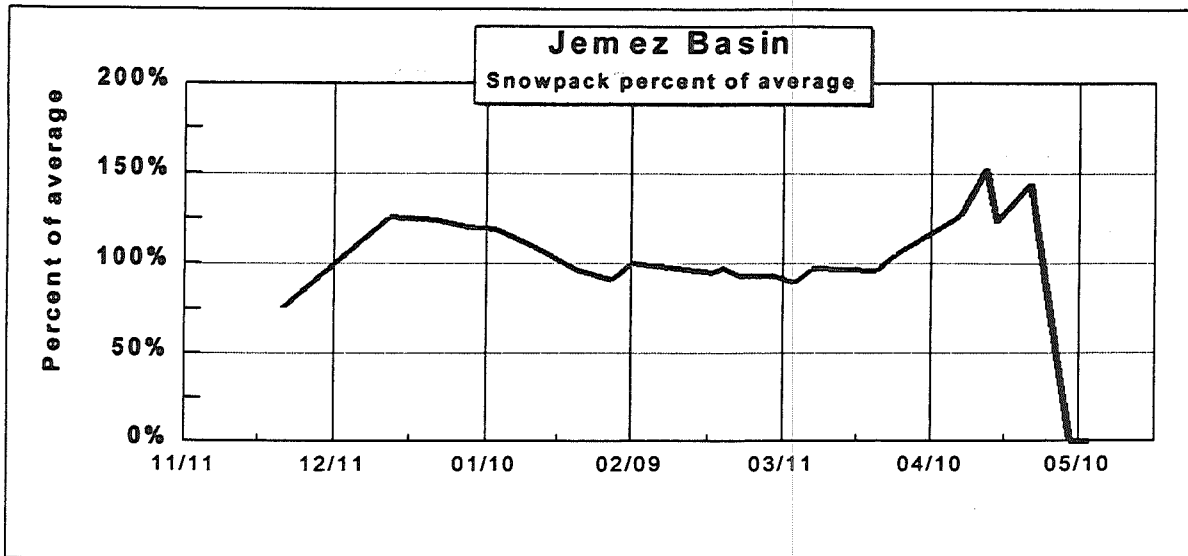
THE FORECAST

Snowmelt is well underway with the remaining snowpack in the San Juan, Upper Rio Grande, and Rio Chama Basins staying near normal. The remaining snowpack in the Sangre de Cristo Basin is nearly 180 percent of average.

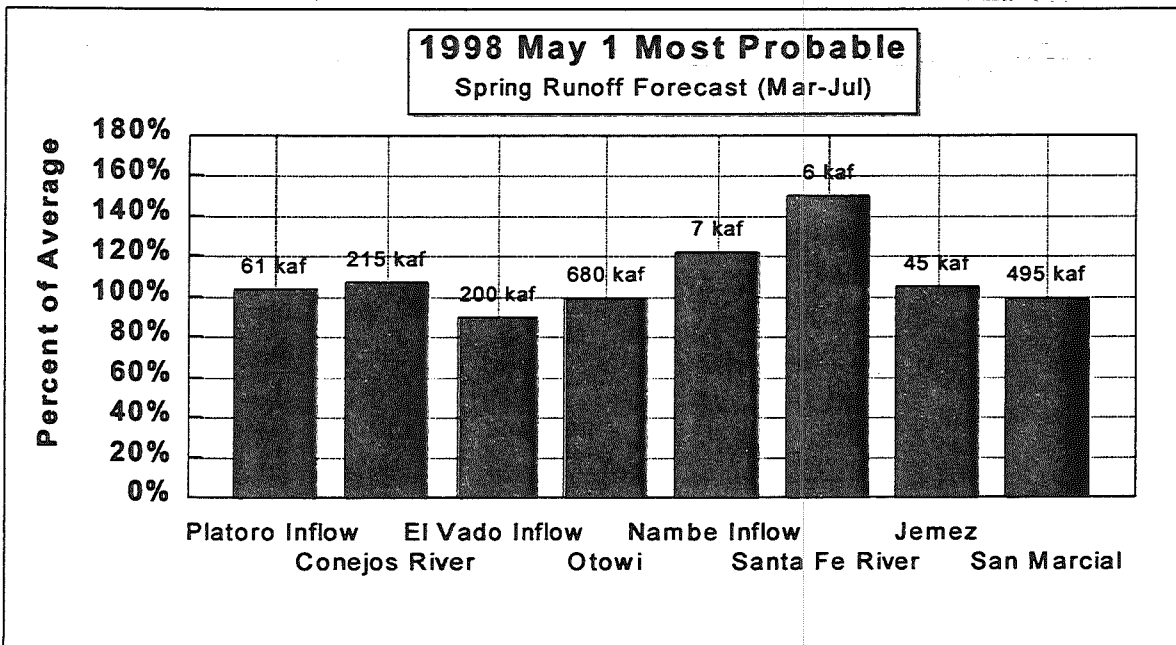
Basin-wide precipitation accumulation for the water year-to-date through April 1998 was 99 percent of average which is the same as last month. Snowpack in the basin is currently 116 percent average, which is down 11 percent from this time last year. Please refer to the following five plots of the snowpack as a percent of average by basin:







The May 1, 1998, streamflow forecasts for the Rio Grande Basin increased from last month and now range from 90 percent of average (200,000 ac-ft) for inflow to El Vado to 150 percent of average (6,000 ac-ft) for the Santa Fe River near Santa Fe. For Otowi, the forecast is 99 percent of average (680,000 ac-ft). The forecast for San Marcial is 99 percent of average (680,000 ac-ft) which is up 24 percent from last month. The forecast for Blanco and Oso Diversion Dams in the San Juan Basin is about 92 percent of average (110,000 ac-ft). Following is a plot of May 1 forecast information for key locations:



BUREAU OF RECLAMATION PROJECTS:

SAN LUIS VALLEY PROJECT -- Closed Basin Division:

The project is being operated in accordance with recommendations of the Operating Committee to meet water deliveries under Priority 1 and Priority 2 water for the project. In addition to Priority 1 deliveries, the project is operated to maintain appropriate mitigation deliveries, provide aeration for grass carp, control aquatic weeds, and protect the conveyance system. The total projected deliveries for 1998 are estimated at 36,500 ac-ft as shown below. Mitigation deliveries to the Alamosa National Wildlife Refuge and the Blanca Wildlife Habitat Area are estimated to be between 3,600 af and 5,300 af. Reduction of a full mitigation supply is expected to reflect distribution of short fall of about 70 percent. Exchange and/or substitution has not been requested, however, will be anticipated.

DELIVERIES TO	AMOUNTS
Rio Grande Compact	32,900 af
Alamosa National Wildlife Refuge (Mitigation)	3,060 af
Blanca Wildlife Habitat Area (Mitigation)	540 af
ANNUAL TOTAL	36,500 af

Maintenance activities include work at Salvage and Elevation well sites; upkeep of canal structures and pumping plants; new electrical installations; aquatic weed control; ice removal; herbicide application along canal right-of-way; shelter belt equipment repair; and repair of vehicles and heavy equipment. Remediation method testing for iron bacteria in the wells and algae is underway and is expected to continue through 1998.

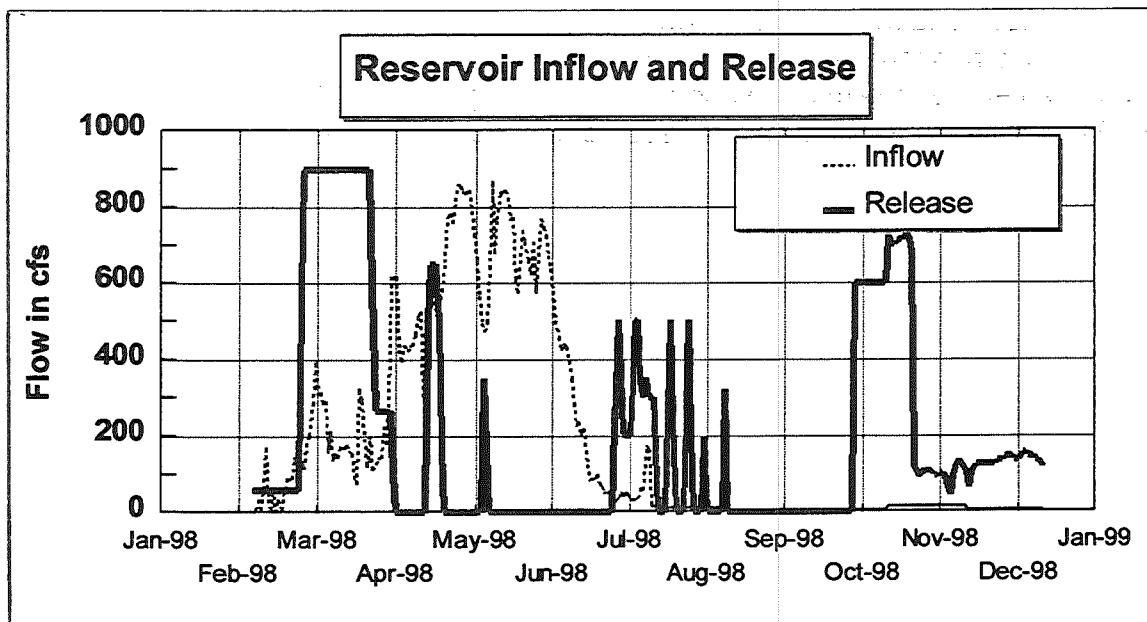
SAN JUAN-CHAMA PROJECT:

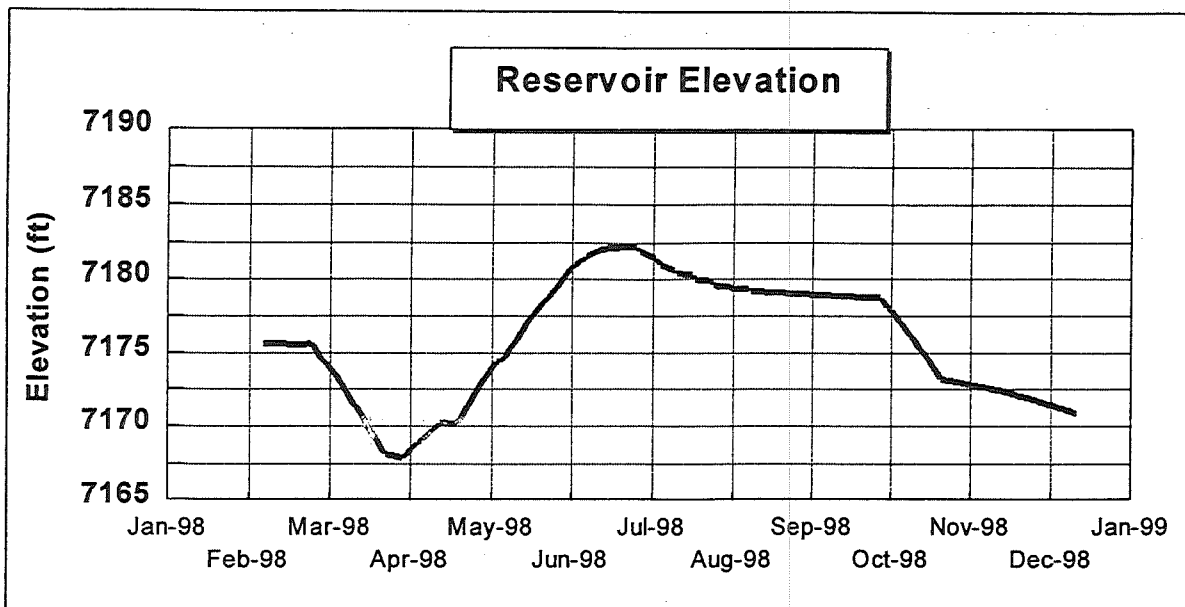
San Juan-Chama Diversions: The three diversion dams are in operation and are maximizing deliveries to Heron Reservoir. The year-to-date mean daily peak diversion was 760 cfs and occurred on May 5 (tunnel capacity is about 950 cfs). Diversions this year are estimated at 80,400 ac-ft, which is up 5,400 ac-ft from the April 1 forecast. Year-to-date diversions total about 19,000 ac-ft, which is 24% of the forecasted volume. The snowpack in the San Juan Basin is melting off and is currently 87% of average.

Heron Reservoir: Based on the estimated diversions, and planned deliveries of San Juan-Chama (SJ-C) water, Heron is not expected to fill. The estimated maximum storage is about 378,660 ac-ft (elev. 7,182.20 ft), which is about 22,670 ac-ft short of the maximum conservation storage of 401,330 ac-ft. The remaining deliveries of 1997 SJ-C allocations were completed, with most of the water going into the Middle Rio Grande Conservancy District's (MRGCD) pool in El Vado.

For the remainder of 1998 the plan will be to schedule deliveries of 1998 SJ-C allocations to maximize benefits on the Rio Chama below El Vado. This includes flows for the rafting season from mid-July to early September, and during November and December to enhance fishery flows on the "Wild and Scenic" reach of the Rio Chama below El Vado. Most of the water used to provide these incidental benefits will be City of Albuquerque water destined for Abiquiu.

Consideration will also be given to minimizing impacts to the recreation community around Heron Reservoir by minimizing drawdown between June and August. In order to accomplish this, delivery of MRGCD's 1998 allocation destined for El Vado is tentatively scheduled for October. Please see the following daily operations plots for Heron Reservoir:





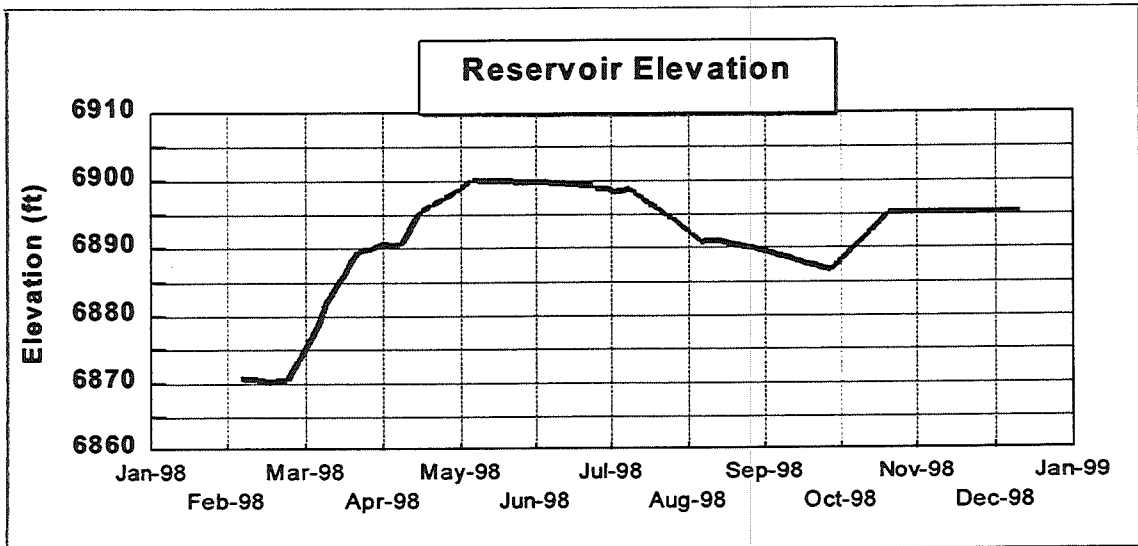
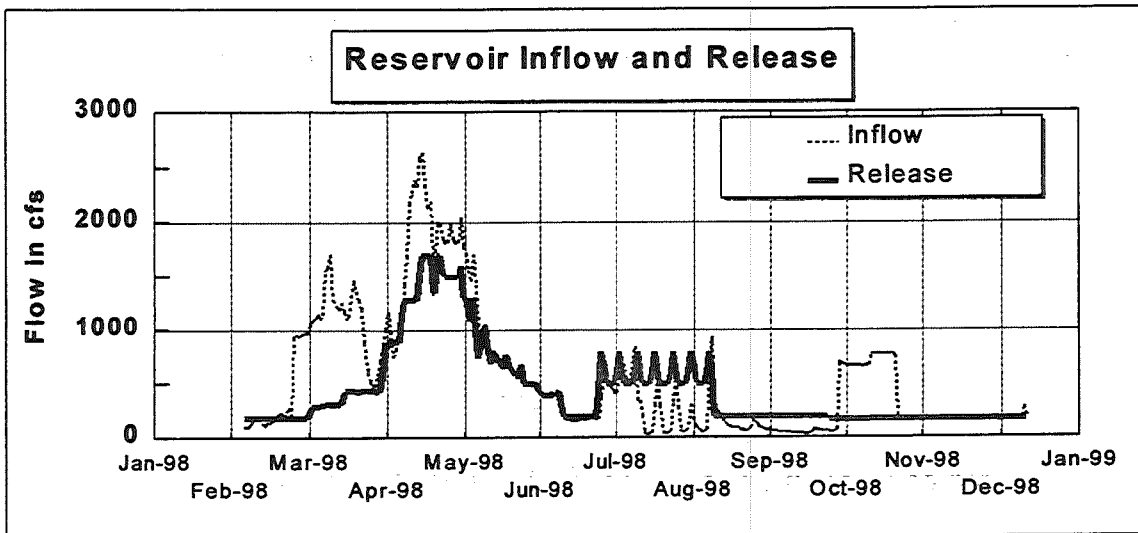
Nambe Falls Reservoir: The May 1 forecast for inflow to Nambe Falls is 7,000 ac-ft (122% of average) which is an increase of 300 ac-ft from last month's forecast. Irrigation releases began during the latter part of April and are currently 25 cfs. The snowmelt runoff into Nambe Falls is on the increase and is currently 30 cfs. The reservoir is expected to undergo a prolonged spill extending into July. Following that, the reservoir will be drawn down to meet irrigation demand for the Pojoaque Valley Irrigation District (PVID). Beginning in August and continuing through mid-October, irrigation releases will be scheduled to maximize the use of available supplies throughout the irrigation season. Depletions to native Rio Grande flows at Otowi as a result of reservoir operations will be offset with (Nambe replacement) SJ-C water from Heron. A date has not yet been set for the first water supply and irrigation scheduling meeting between PVID, the Pueblos of Nambe, Pojoaque, and San Ildefonso, Bureau of Indian Affairs, and Reclamation.

MIDDLE RIO GRANDE PROJECT:

El Vado Reservoir: Deliveries of SJ-C water from Heron through El Vado were completed in April. Spring runoff into El Vado is underway, with the year-to-date mean daily peak inflow of 2,390 cfs occurring on May 5. The May 1 forecasted inflow to El Vado is about 200,000 ac-ft (90% of average) which is a 15,000 ac-ft increase from last month. The increased inflow will be passed through to Abiquiu since El Vado is expected to fill during the latter part of May. Supplemental irrigation releases for MRGCD are expected to begin in mid-July. Rafting releases are planned for mid-July through early September, and for now are intended to be the normal schedule of 800 cfs from Friday afternoon through Sunday afternoon and 500 cfs the rest of the week.

However, discussions are underway to change this schedule to a constant 700 cfs all week for the entire period, based upon possible improvements to both river water clarity and overall recreational benefits. All of this of course is dependent upon actual water availability and usage conditions, and impacts to storages in El Vado and Abiquiu.

As is normally done, MRGCD irrigation demands will be met mostly through borrowed releases from Abiquiu, paid back from El Vado at later times to assist with environmental and recreational needs. As in 1997, Reclamation has prepared and arranged to secure up to approximately 40,000 af of SJ-C water for the middle valley water management and may use as much as 30,000 af this year, depending on summer rains. The reservoir is expected to end the year at a total storage of approximately 165,200 af (elevation of 6895.27 ft). Following are plots of 1998 operations for El Vado:



Endangered Species: The Bureau of Reclamation and the Corps of Engineers have jointly entered into an Endangered Species Act, section 7, process to programmatically consult with the Fish and Wildlife Service on federal water operations and river maintenance actions on the middle Rio Grande in New Mexico over a multi-year period. The associated biological assessment considers the effects of these activities on federally protected species occurring in or near the Rio Chama or Rio Grande from Heron Reservoir and Velarde, New Mexico, respectively, to the headwaters of Elephant Butte Reservoir. Rio Grande silvery minnow, the southwestern willow flycatcher, and the bald eagle are the main species of concern.

River flow conditions to-date in 1998 have been favorable to the silvery minnow. Continuous flow below Cochiti Dam to Elephant Butte Reservoir during March and April should have helped the survival of adult silvery minnow into the spring runoff spawning season. On-going biological monitoring has already documented successful spawning below San Acacia Diversion Dam corresponding with the onset of spring runoff. The extent of overbank flooding associated with this year's spring runoff and its impact on willow flycatcher nesting success will be monitored in May and June.

The release of San Juan-Chama Project water to supplement the middle valley's total water supply thereby allowing the Middle Rio Grande Conservancy District to bypass native Rio Grande water will be especially important during the tailout of spring runoff and the early summer season to reduce the potential rate of recession of surface flows and extent of channel drying.

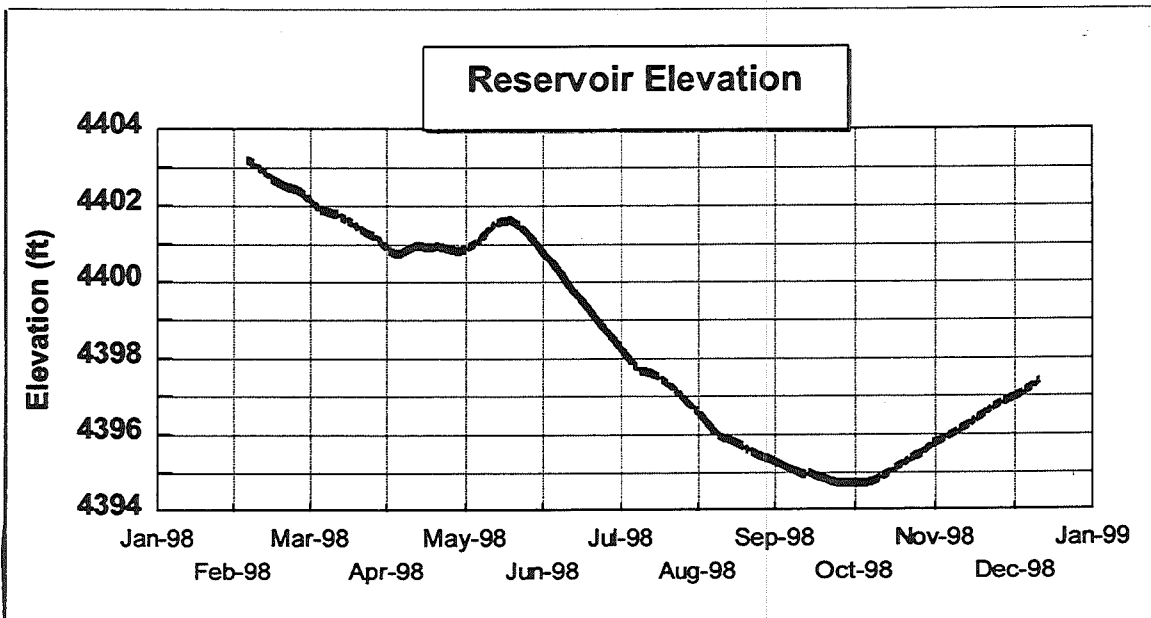
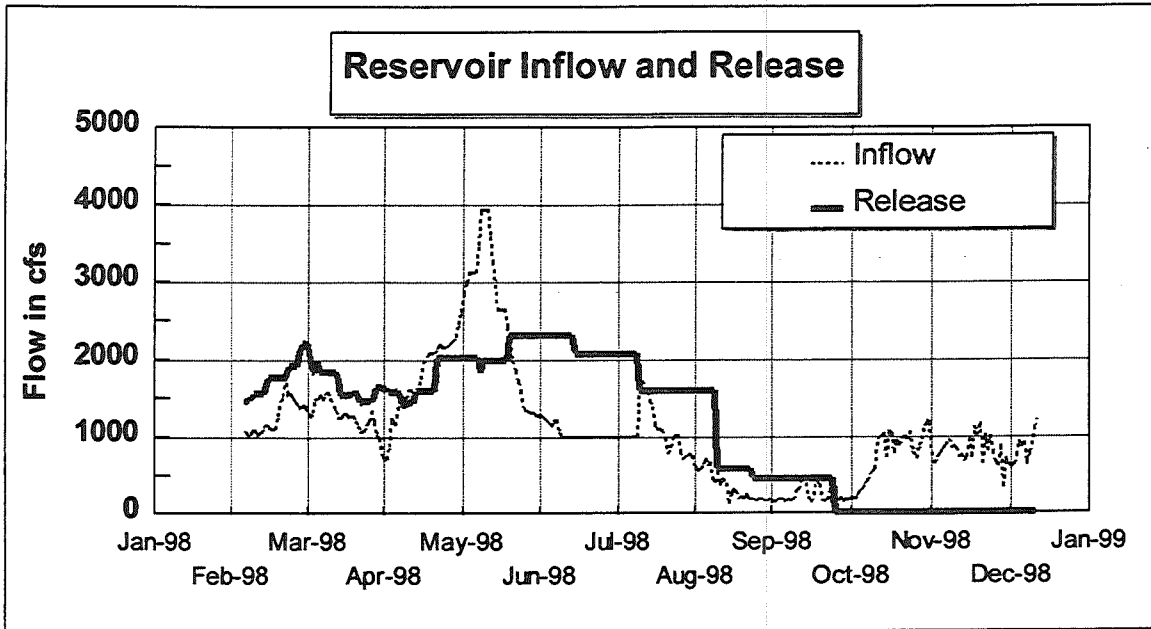
RIO GRANDE PROJECT:

The current projected 1998 reservoir operating plans are based on the May 1 spring runoff forecasts (March to July) for the Rio Grande at Otowi and San Marcial. From August through December, reservoir operations are based on average historic inflow and reservoir losses for Elephant Butte and Caballo Reservoirs. Scheduled outflow for the year from Elephant Butte and Caballo are based on average irrigation demands for years with a full water supply.

Elephant Butte Reservoir: Inflow into Elephant Butte Reservoir during 1998 is estimated to be 816,000 ac-ft (92% of the 84-year average annual inflow), as measured at San Marcial, New Mexico.

Elephant Butte storage at the beginning of the year was 1,928,400 ac-ft (elev. 4,403.18 ft). The storage at the end of year is estimated to be 1,773,900 ac-ft (elev. 4,398.62 ft). The current combined project storage peak for Elephant Butte and Caballo Reservoirs, occurred on February 24, 1998, at 2,038,110 ac-ft.

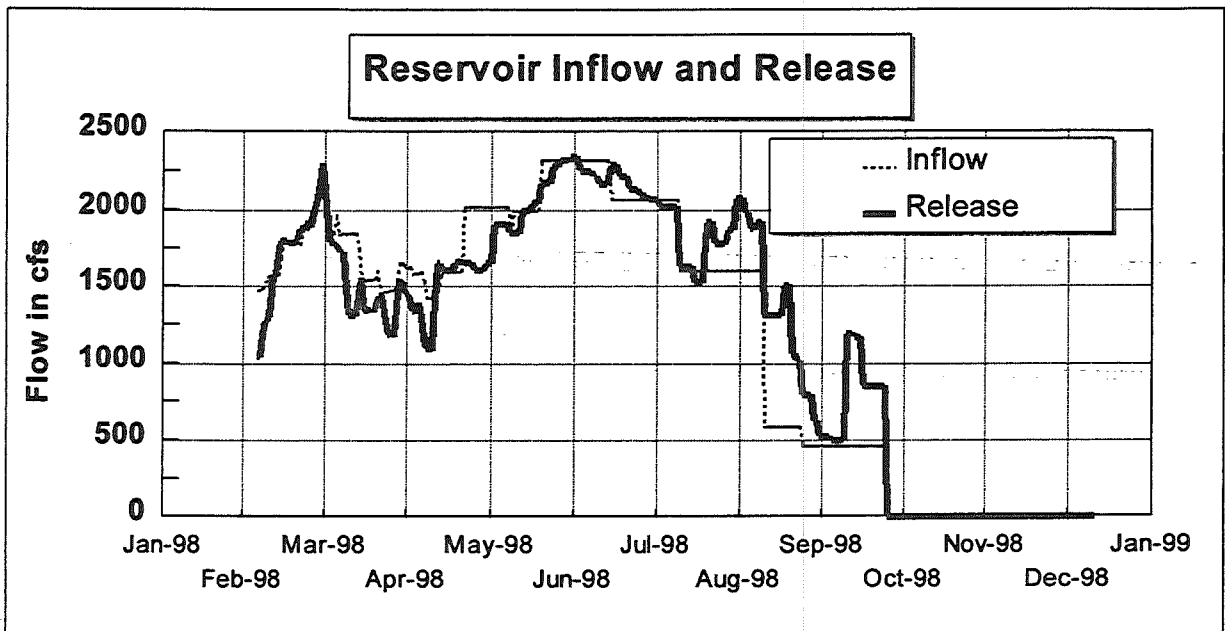
Elephant Butte is not expected to exceed the current peak storage of 1,985,900 ac-ft (elev. 4,404.81 ft) which occurred on February 17-18 of this year. The reservoir is estimated to reach a low storage of 1,685,900 ac-ft (elev. 4,395.88 ft) sometime in October. Elephant Butte releases for 1998 are estimated to be 783,000 ac-ft. Please see the following plots of the 1998 operations plan for Elephant Butte Reservoir:

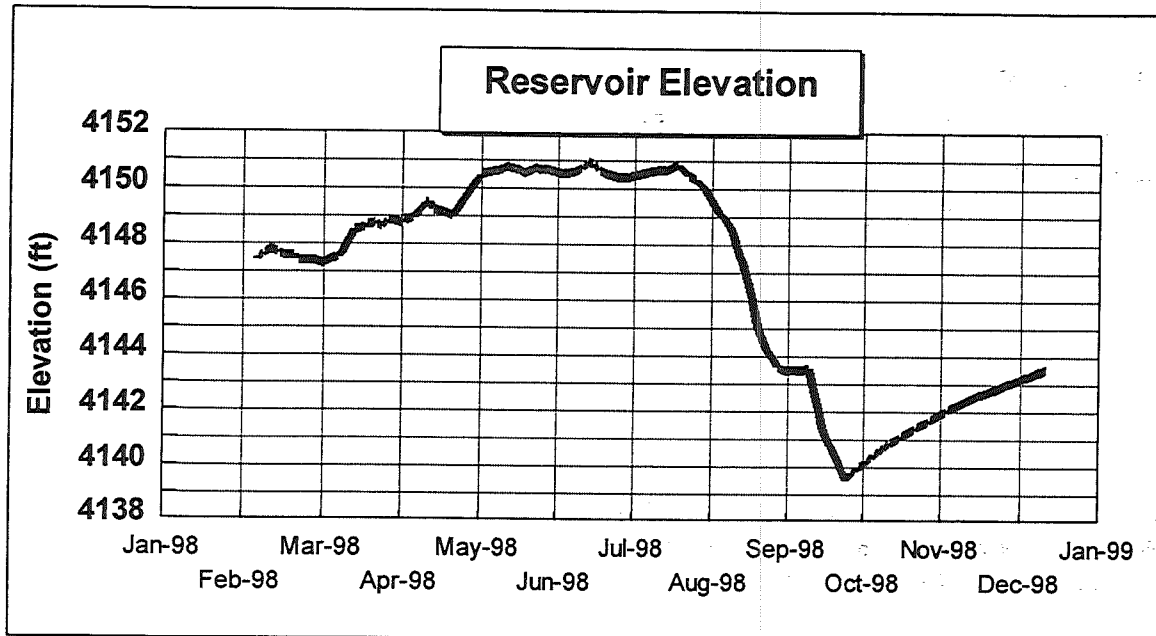


Caballo Reservoir: The inflow to Caballo Reservoir during 1998 is projected to be 783,000 af. Caballo storage at the beginning of the year was 43,560 ac-ft (elev. 4,143.15 ft). The end-of-year storage is estimated to be 44,600 ac-ft (elev. 4,143.46 ft).

Caballo is estimated to peak at a storage of 76,600 ac-ft (elev. 4,150.96 ft) sometime this summer. It should reach a low storage of 32,520 ac-ft (elev. 4,139.55 ft) sometime in October.

Releases for the 1998 irrigation season began on January 16 for the El Paso County Water Improvement District No. 1 and February 6 for the Elephant Butte Irrigation District. Diversions to Mexico began on March 17. Total releases from Caballo Dam for 1998 are projected to be 782,000 af. It is anticipated that Mexico will end their irrigation diversions in early September. It is also anticipated that releases from Caballo Reservoir will be terminated by mid-October which ends the 1998 irrigation season. Following is the 1998 operations plan for Elephant Butte Reservoir:





Project Diversions: A full allotment of 931,840 ac-ft (494,980 ac-ft for EBID, 376,860 ac-ft for EPCWID and 60,000 ac-ft for Mexico) was declared available on December 9, 1997.

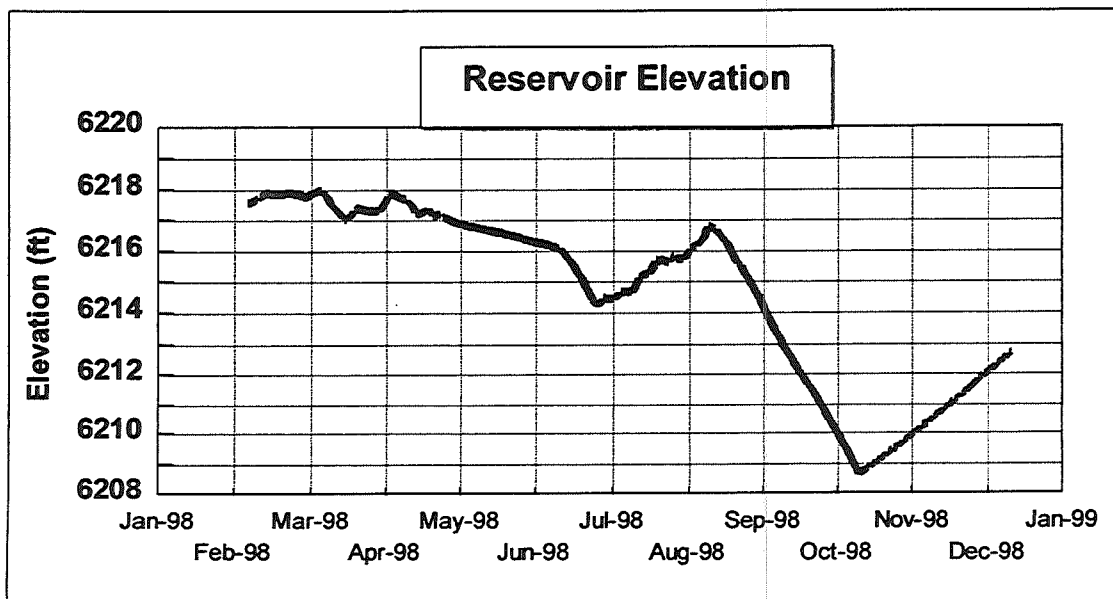
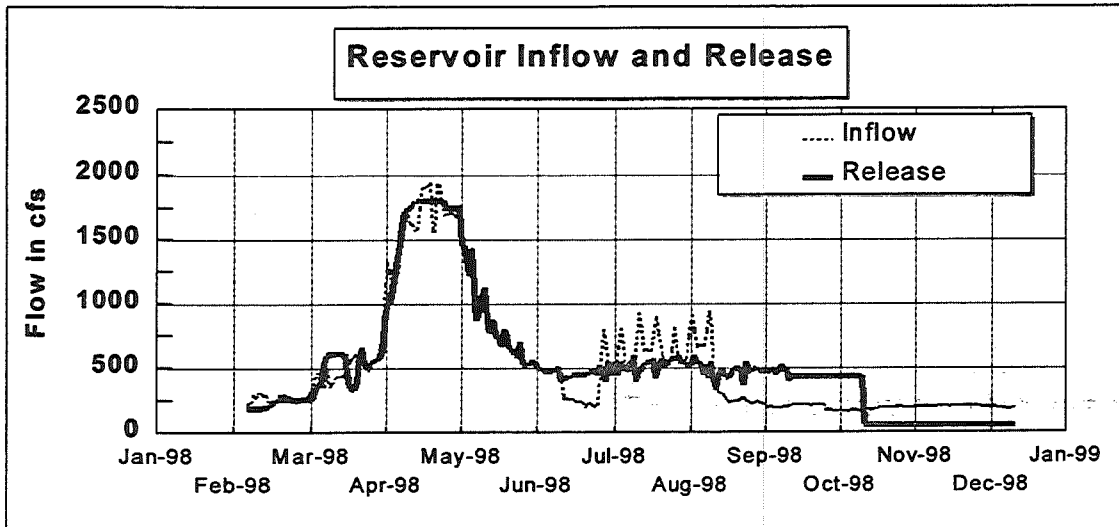
Mexico: Delivery of water to Mexico's Acequia Madre Heading is controlled by the United States Section of the International Boundary & Water Commission (IBWC). Water which is not diverted into the American Canal at American Diversion Dam remains in the Rio Grande and is diverted at the International Diversion Dam into the Acequia Madre for Mexico. The 1906 Convention Treaty water delivered to Mexico in the river will total 60,000 af.

Operating Agreement: In December, 1984, Reclamation distributed a draft operating agreement which was developed by Reclamation, the IBWC, Elephant Butte Irrigation District, and El Paso Water Improvement District No. 1. This draft plan has not been officially approved nor signed. The draft plan, however, has been utilized during the operations of the 1985 through 1997 irrigation seasons, and will continue to be in effect for the 1998 irrigation season operations.

CORPS OF ENGINEERS PROJECTS:

Abiquiu Reservoir: From Abiquiu, the City of Albuquerque released water to fill the sediment pool in Jemez Canyon Reservoir, by exchange. The SJ-C water is leased by New Mexico Interstate Stream Commission (NMISC). The exchange occurred in late March and early April. Water was borrowed from the City SJ-C pool and sent to the Cochiti recreation pool as evaporation replacement water for the period January through March. The recreation pool was topped off in March.

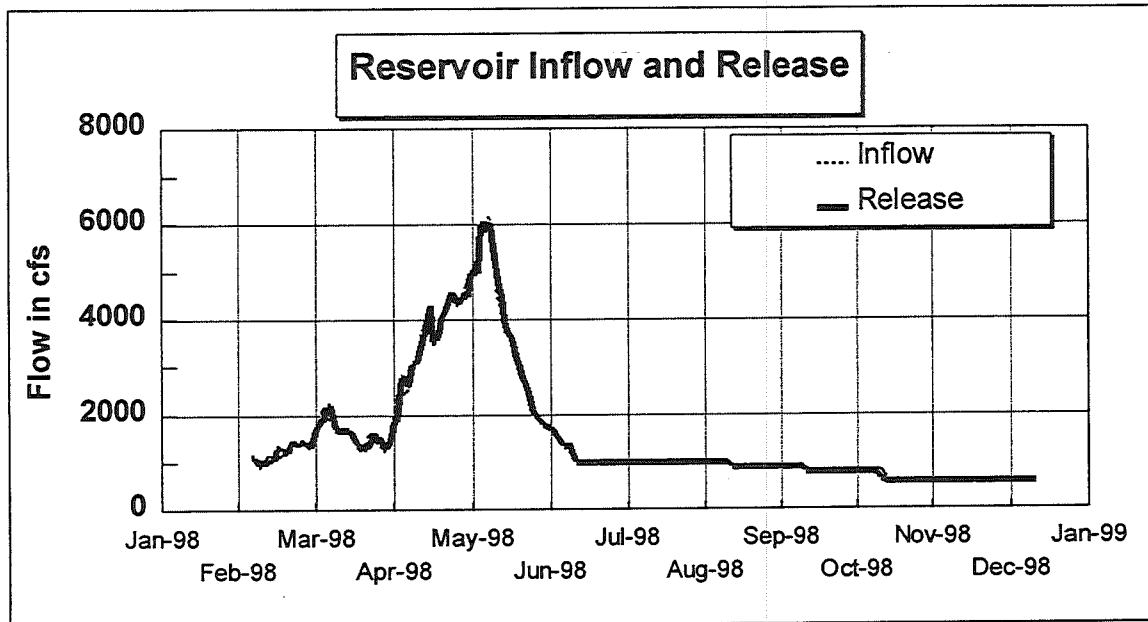
The Corps does not anticipate having any carryover storage of natural water this year. The Corps does anticipate making releases up to channel capacity (1,800 cfs) below the dam for the rest of May. The installation of the emergency gates at Abiquiu Dam is still on schedule. We plan on releasing up to 63 cfs during the November 1, 1998 to March 31, 1999 construction window. With this restriction in release capability, we project that approximately 30,000 ac-ft of native Rio Grande water will be detained in Abiquiu Reservoir until April 1999. Additional evaporation replacement SJ-C water will be sent to Cochiti Lake in October 1998 from Abiquiu Reservoir. See 1998 Abiquiu operations plots below:

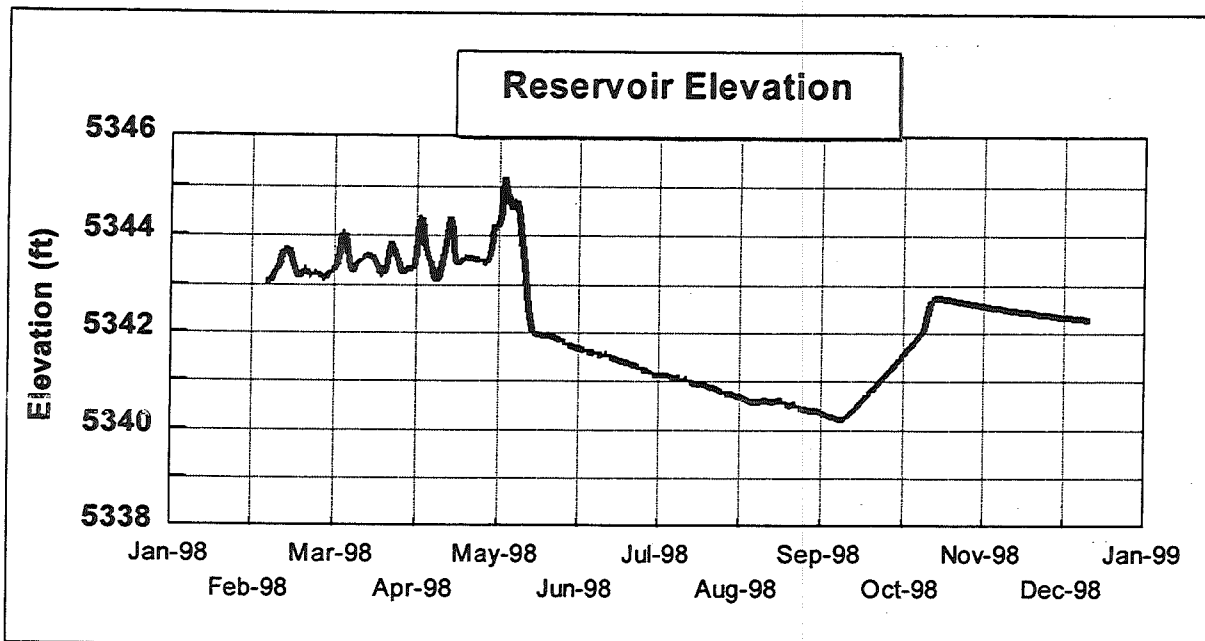


Cochiti Lake: Cochiti Lake is the last storage reservoir on the main stem of the Rio Grande in the Middle Valley and is a key control feature. Therefore, direct operations for irrigation release, including some diversions occur here, though actually routed through from Abiquiu Dam. Often, actual releases for irrigation demand and middle valley water management are estimated and ordered in reference to Cochiti.

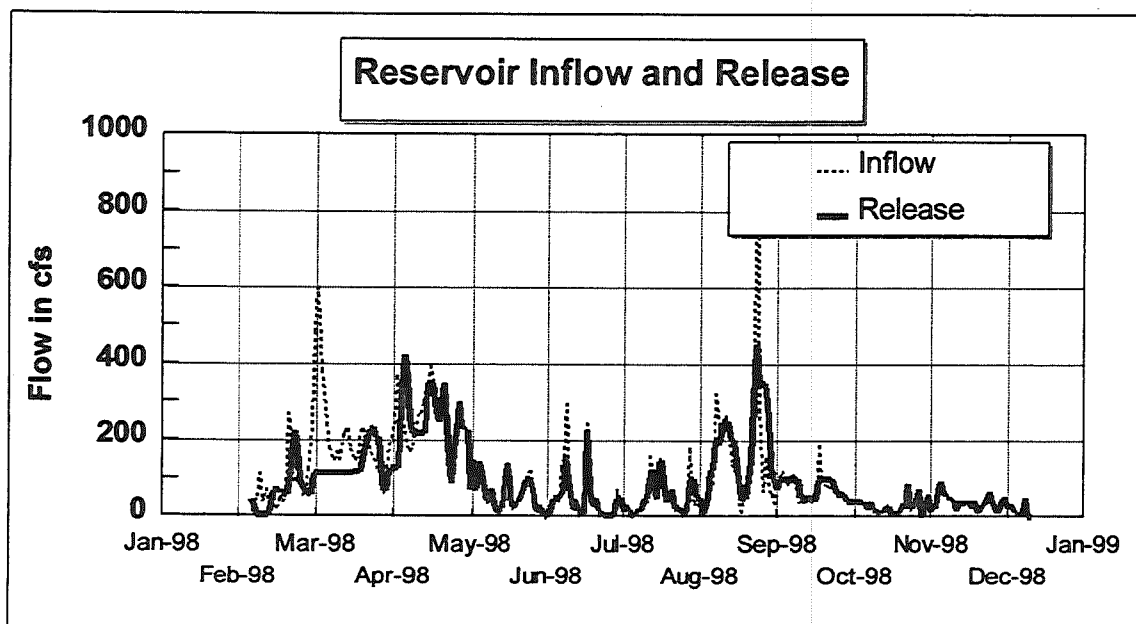
To operate with the necessary responsiveness to conditions and needs, daily (and sometimes multiple within a day) coordination/conference calls are made between the Corps, MRGCD, Fish and Wildlife Service (USFWS), Interstate Stream Commission, Reclamation Socorro Field Division, and Reclamation's Albuquerque Area Office, to discuss river conditions, weather, key-gage flows, diversions, and resulting necessary adjustments in releases. Gage observations and operational changes continue on weekends and holidays with points-of-contact and protocols prearranged.

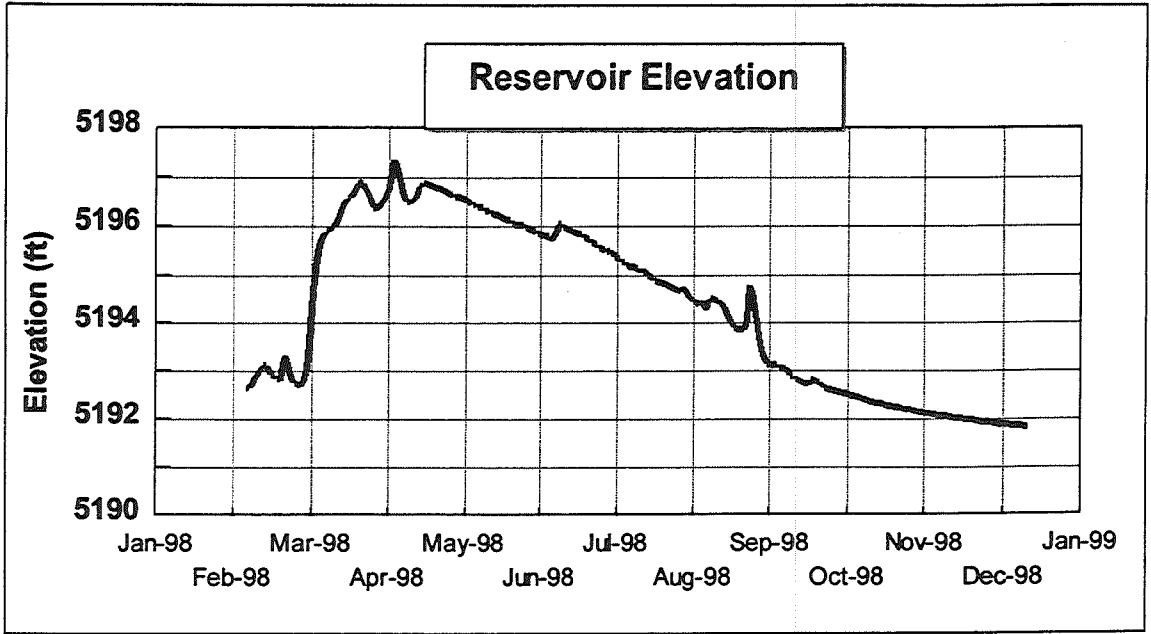
The Corps does not anticipate having any carryover storage of natural water this year in Cochiti Lake. Releases from the dam will be stepped up in 500 cfs increments when the release reaches 5,000 cfs. Visits will be made to critical river reaches to monitor conditions before the next 500 cfs release is implemented. The Corps does not anticipate making releases in the range of the channel capacity (7,000 cfs at Albuquerque gage). The Corps projected maximum outflow from Cochiti Dam is 6,000 cfs for three to four days. The projected inflow peak is 6,200 cfs. It is projected to occur in late May. Following are 1998 operations plots for Cochiti:





Jemez Canyon Reservoir: The Jemez Canyon Reservoir sediment pool was topped off in early April. The Corps will pass inflow the rest of the year. The Corps does not anticipate making releases from Jemez Canyon Dam in excess of 500 cfs. The evaporation that occurs in April 98 through March 99 will be exchanged in April-June 99. Following are 1998 operations plots for Jemez Canyon:



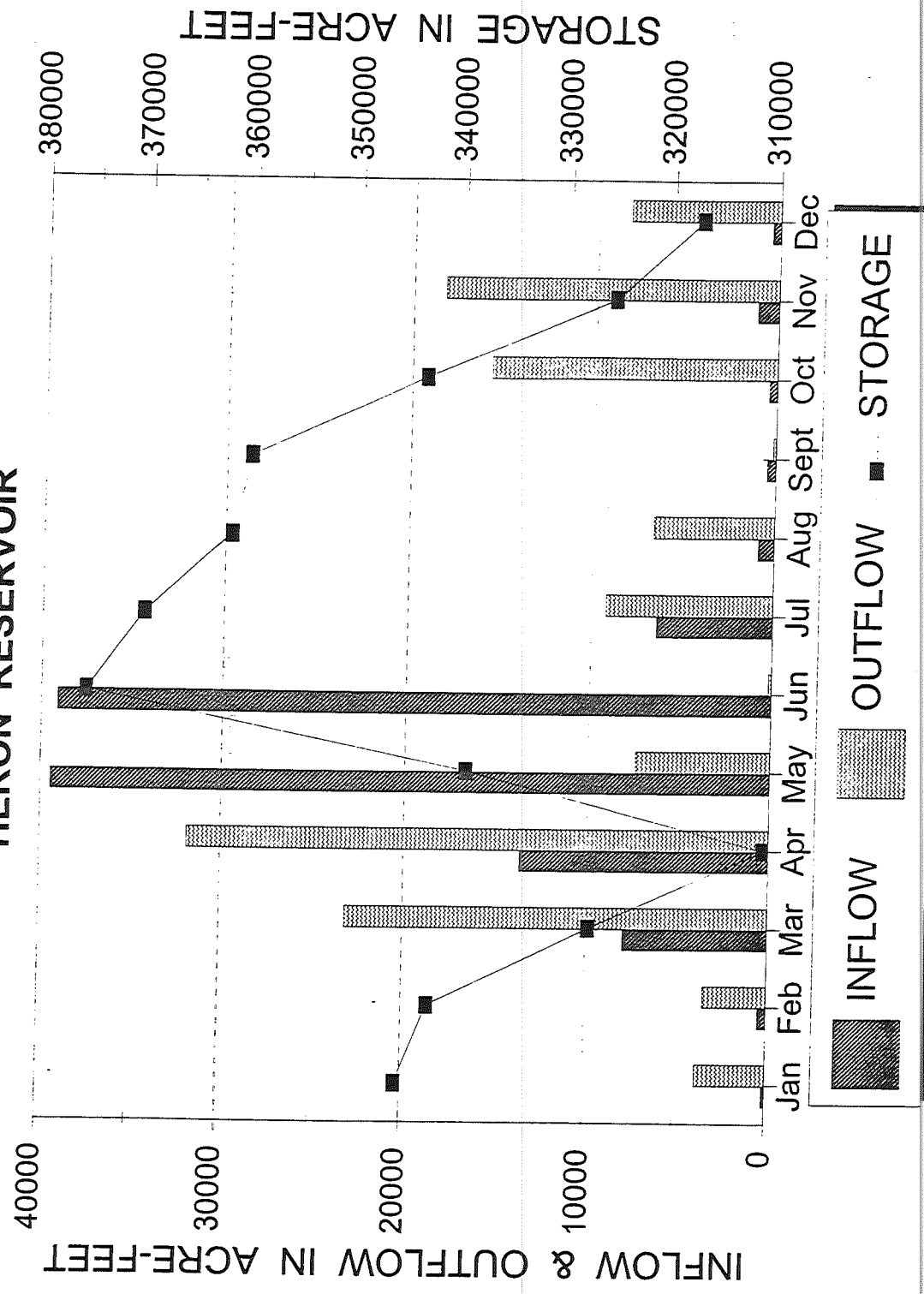


MONTHLY

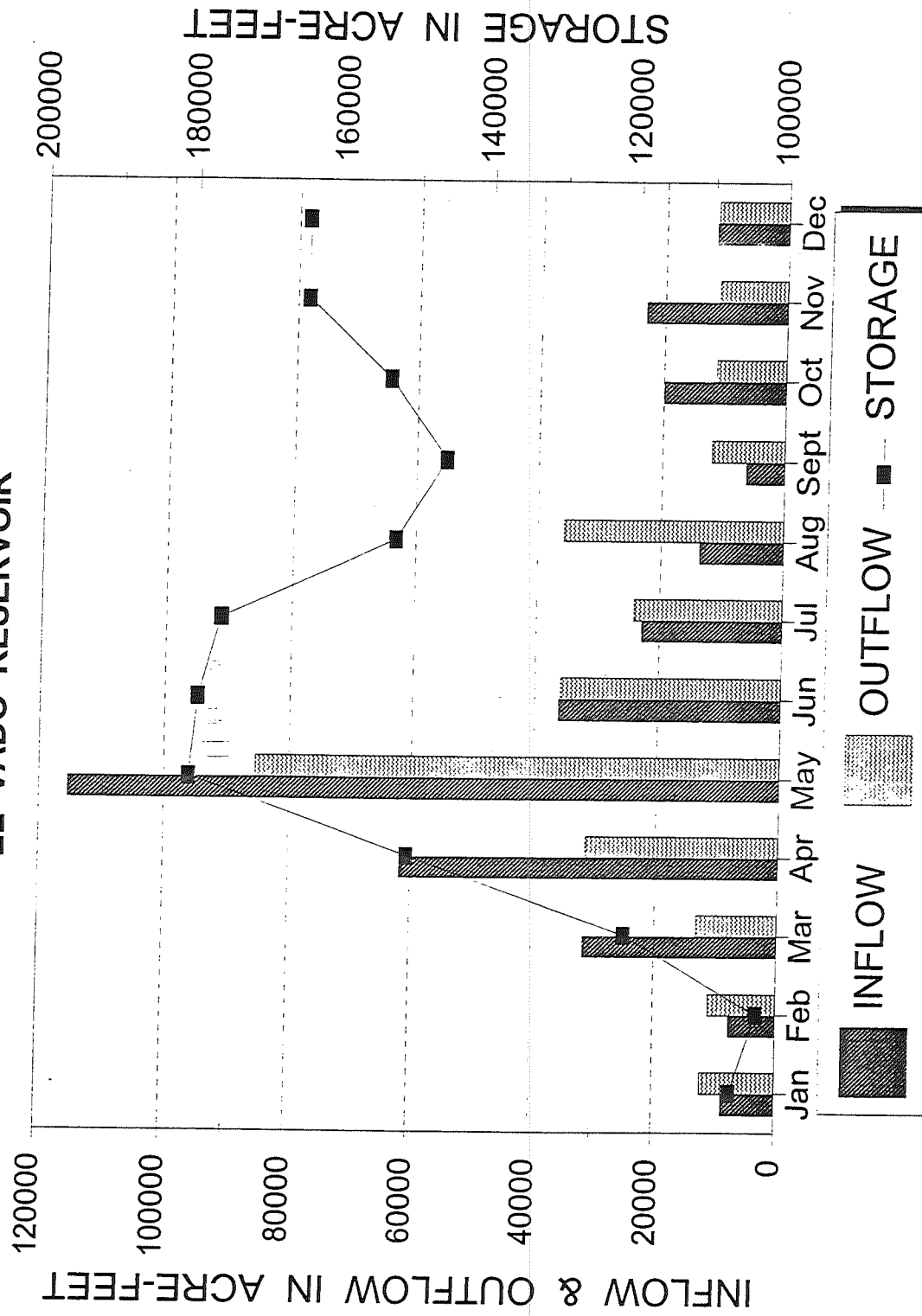
RESERVOIR

PLOTS

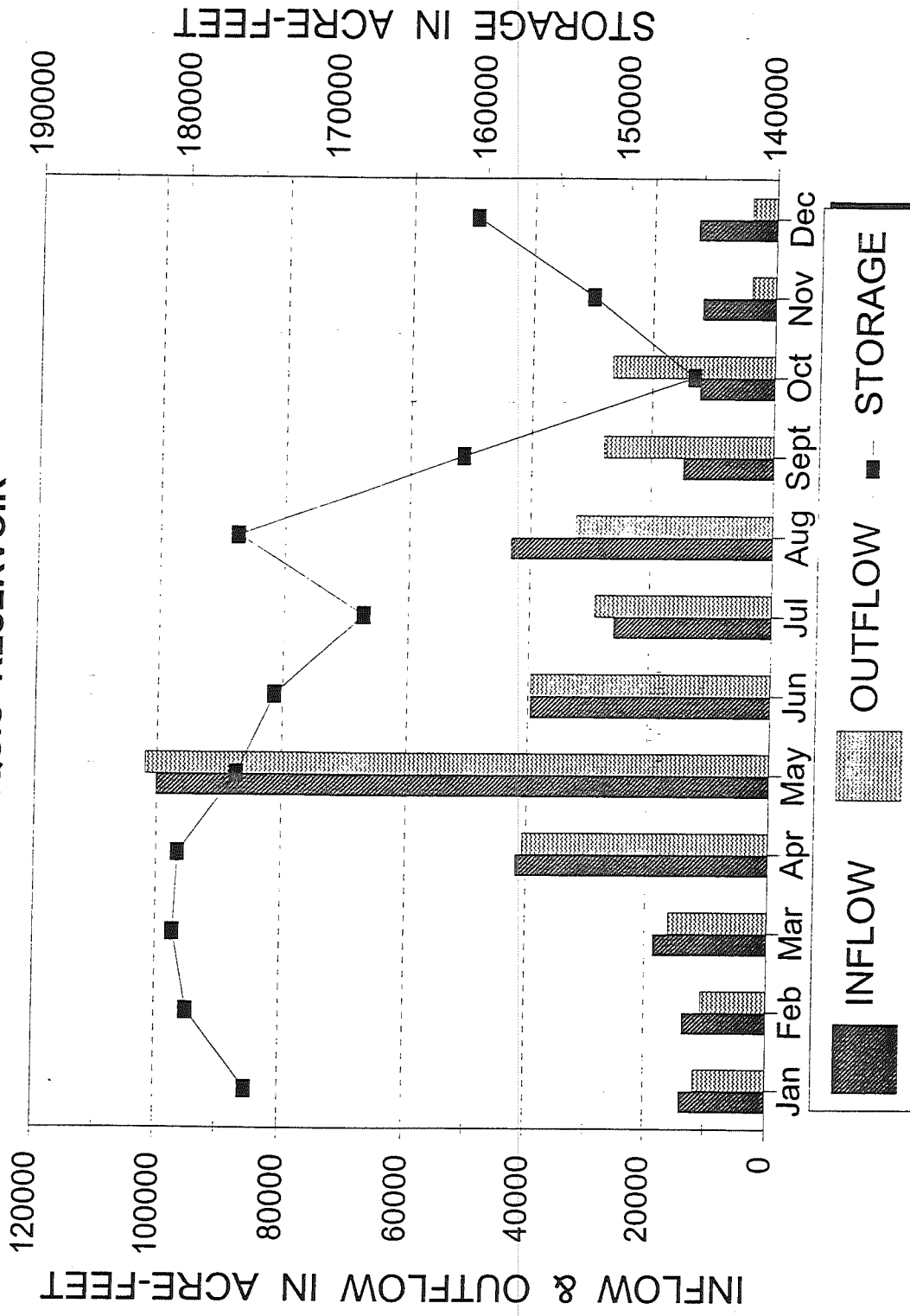
HERON RESERVOIR



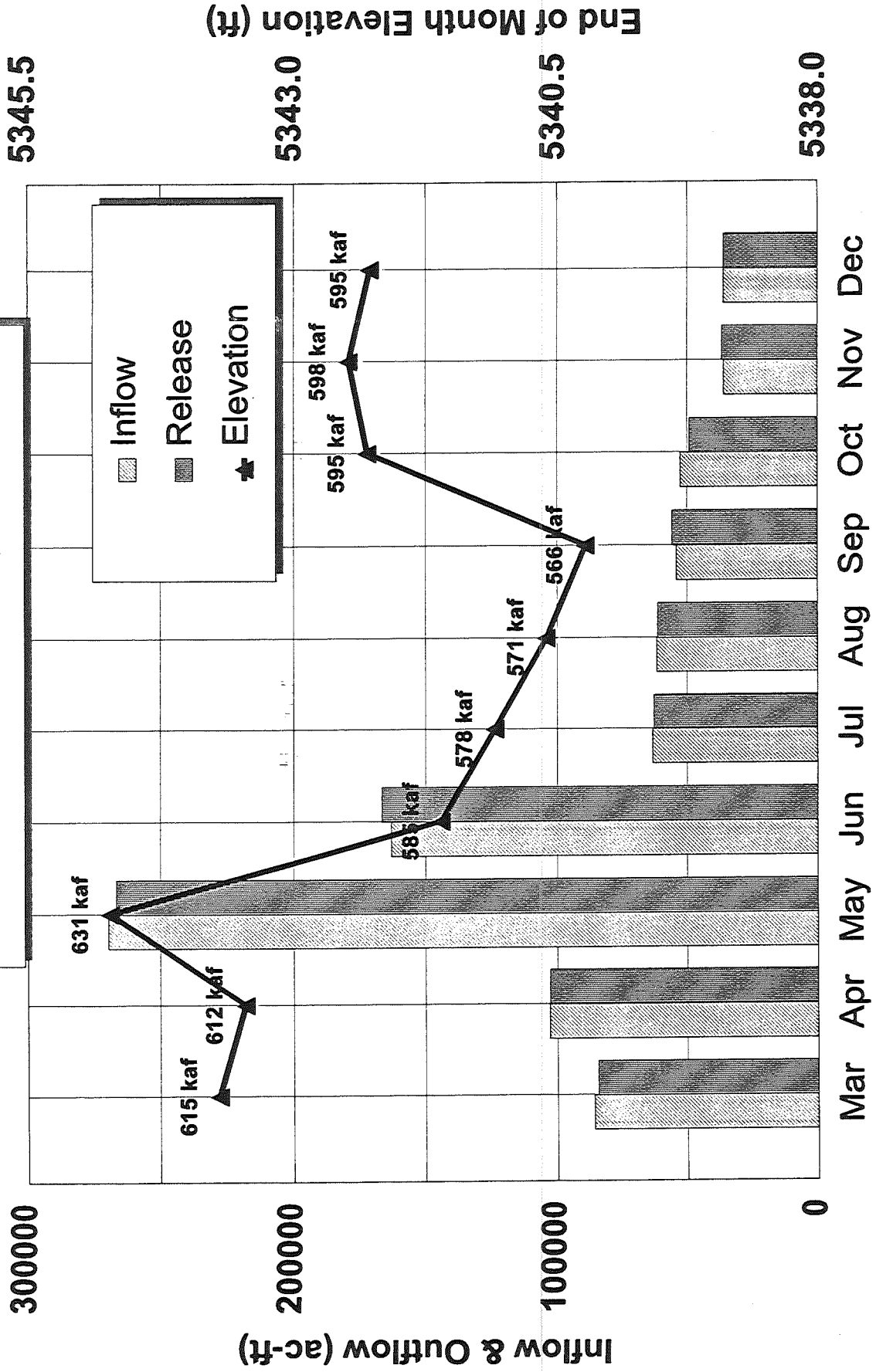
EL VADO RESERVOIR



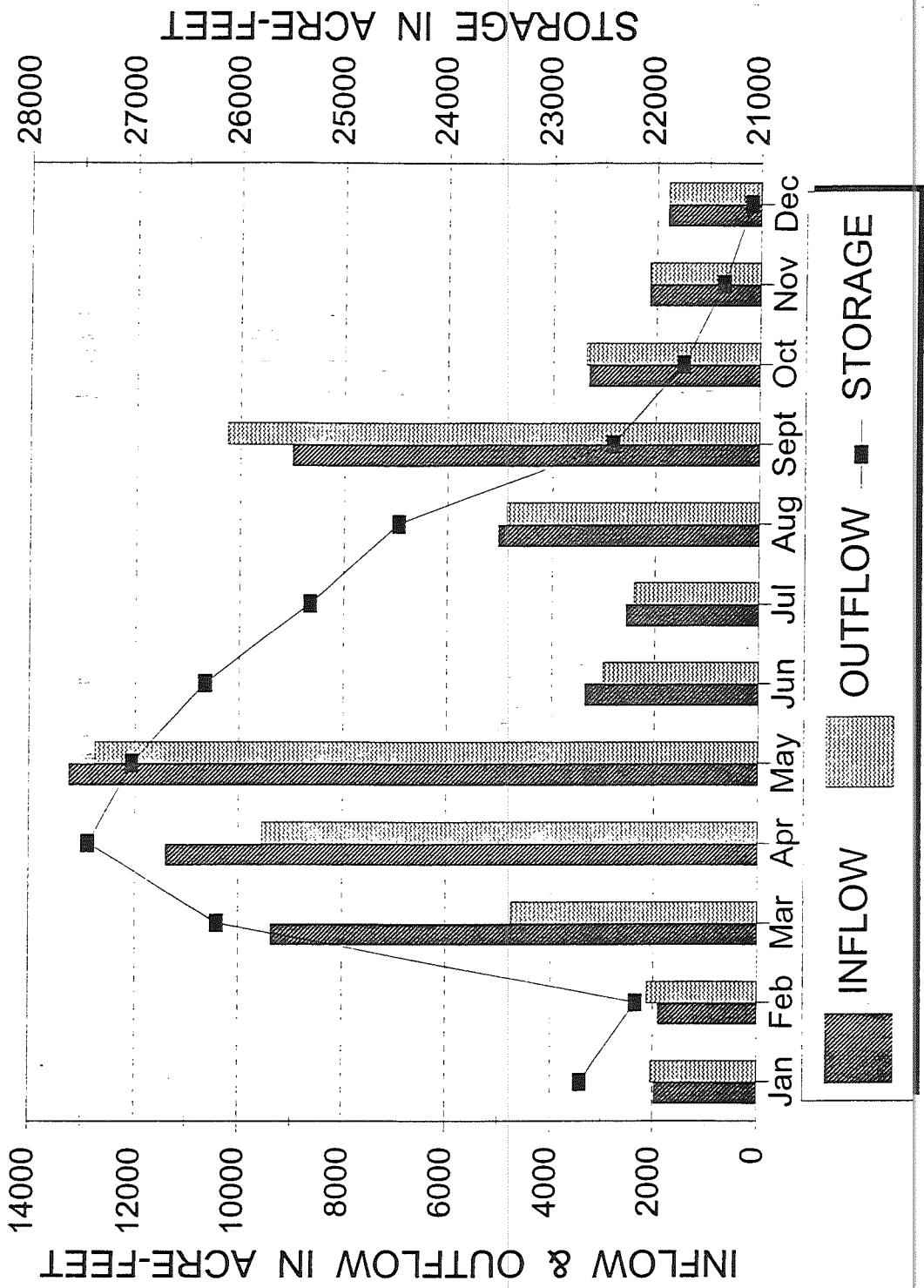
ABIQUIU RESERVOIR



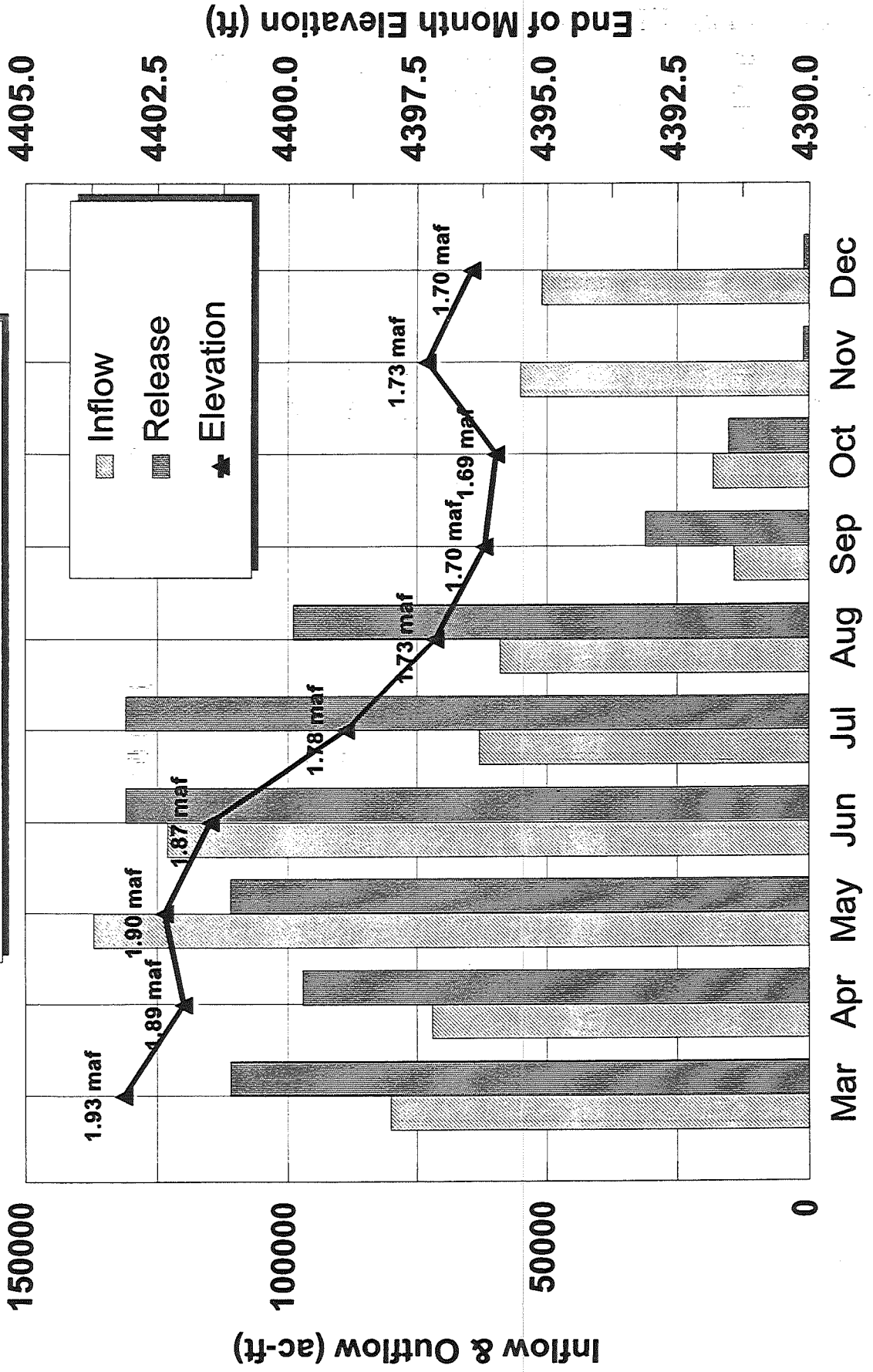
COCHITI LAKE



JEMEZ CANYON DAM AND RESERVOIR



ELEPHANT BUTTE RESERVOIR



CABALLO RESERVOIR

