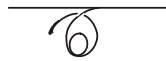


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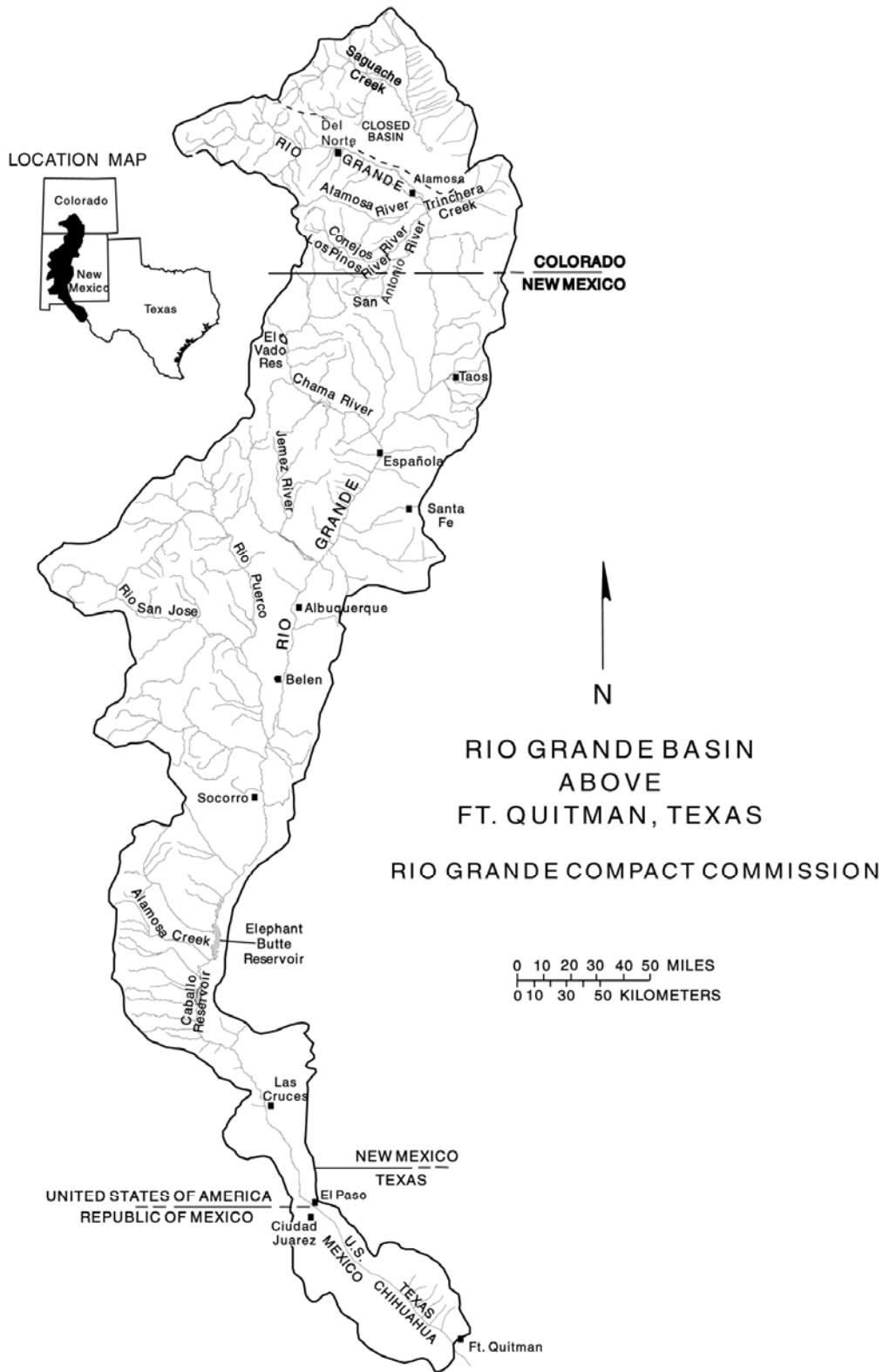
of the

**RIO GRANDE COMPACT
COMMISSION**

2014



**TO THE GOVERNORS OF
Colorado, New Mexico and Texas**



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**RIO GRANDE COMPACT COMMISSION
COLORADO TEXAS NEW MEXICO**

March 24, 2015

The Honorable Susana Martinez
Governor of the State of New Mexico
Santa Fe, New Mexico

The Honorable John W. Hickenlooper
Governor of the State of Colorado
Denver, Colorado

The Honorable Greg Abbott
Governor of the State of Texas
Austin, Texas

Honorable Governors:

The 76th Annual Meeting of the Rio Grande Compact Commission was held in Austin, Texas on March 24, 2015.

The Commission reviewed the cost of operation and found that the expenses for the administration of the Rio Grande Compact were \$189,179 in the fiscal year ending June 30, 2014. The United States bore \$51,992 of this total; the balance of \$137,187 was borne equally by the three States party to the Compact.

Enclosed herewith is the 2014 Report of the Rio Grande Compact Commission.

Respectfully,



Tom Blaine, Commissioner for New Mexico



Dick Wolfe, Commissioner for Colorado



Patrick R. Gordon, Commissioner for Texas

**REPORT OF THE ENGINEER ADVISERS
TO THE RIO GRANDE COMPACT COMMISSION
March 24, 2015**

The Engineer Advisers to the Rio Grande Compact Commission met in Albuquerque, New Mexico on January 12 and 13, 2015, and from February 23 through February 26, 2015, to 1) receive reports, 2) prepare the 2014 Rio Grande Compact (Compact) water accounting, 3) discuss continuing and new issues in preparation for the 2015 annual meeting of the Rio Grande Compact Commission (Commission), and 4) prepare the Engineer Advisers' report. The Engineer Advisers requested and received the participation of the U.S. Geological Survey (USGS), the U.S. Bureau of Reclamation (Reclamation), the U.S. Army Corps of Engineers (Corps), the U.S. Bureau of Indian Affairs (BIA), the International Boundary and Water Commission (IBWC), and the U.S. Fish and Wildlife Service (Service) at the meetings. The federal agencies each presented information about their specific water-related activities in the basin during the previous calendar year.

COMPACT ACCOUNTING

The Engineer Advisers reviewed the streamflow and reservoir storage records and other pertinent data for the Upper Rio Grande Basin during calendar year 2014 and are again unable to reach a consensus on the 2014 accounting. The lack of consensus arises from a disagreement that began in 2011 amongst the Texas Engineer Adviser and New Mexico and Colorado Engineer Advisers on the release of water by Reclamation from Elephant Butte Reservoir in late summer 2011. As a result, the Engineer Advisers have not reached consensus on how to finalize the 2011 through 2014 Compact Delivery Tables for Colorado and New Mexico and the Release and Spill from Project Storage Table. For 2014, as in previous years, each of the Engineer Advisers developed accounting procedures described in the addenda to this report. At the 2014 meeting, the Commission did not approve any of the proposed accounting scenarios. The Engineer Advisers used the accounting scenarios they individually presented last year to carry forward Compact accounting for the 2014 calendar year.

RIO GRANDE BASIN CONDITIONS

Snowmelt runoff levels in 2014 were near to below average in most of the basin in

Colorado and below average in New Mexico. Drought conditions persisted in 2014 throughout the Rio Grande Basin.

Summer monsoon precipitation was about average in the Upper Rio Grande Basin in Colorado in 2014. Platoro Reservoir reached a high of 25 percent of capacity during June of 2014 as part of the Colorado direct flow storage regulation operation. The Basin in New Mexico generally received below average summer monsoon precipitation in 2014. Usable Water in Rio Grande Project Storage was below the Article VII trigger of 400,000 acre-feet all year.

Reclamation stored Rio Grande water in El Vado Reservoir, part of which was for its six Middle Rio Grande Pueblo Prior and Paramount (P&P) operation and the remainder was relinquishment credit. The reservoir reached approximately 23 percent of capacity at the end of May 2014. Between January and early August 2014, 18,000 acre-feet of P&P water and 32,350 acre-feet of relinquishment credit water was stored in El Vado Reservoir. The San Juan-Chama Project (SJCP) delivered 60,030 acre-feet through the Azotea Tunnel into the Rio Grande basin during the year which is about 63 percent of the estimated Project firm yield. By the end of 2014, Reclamation had allotted 85 percent of the firm yield to its SJCP contractors for the year. This was the first year in the history of the Project that contractors received less than a full allocation. The 2015 allocation will be entirely dependent on inflow.

Since the historic drought of 2002, the annual water supply at the Compact index gages in Colorado and New Mexico have been significantly below the long-term average. In particular, snowmelt runoff has been less than average each year since 2010. This has led to declining water supplies and reservoir storage throughout the Upper Rio Grande basin. At the beginning of 2015, there was almost no native Rio Grande water in storage upstream of Elephant Butte Reservoir in New Mexico and native water storage in Elephant Butte Reservoir was approximately 13 percent of capacity.

CONTINUING ISSUES

This section of the report summarizes new information about issues previously addressed by the Engineer Advisers. It reflects information obtained by the Engineer Advisers prior to the 2015 Commission meeting, including information obtained from the reports of the federal agencies at meetings with the Engineer Advisers or otherwise reported at the 2015 Engineer Adviser meetings. The terms “reported” and “indicated” herein reflect information provided by

various entities without analysis by the Engineer Advisers.

Middle Rio Grande Endangered Species Act Collaborative Program

Reclamation, the Corps, and the New Mexico Interstate Stream Commission (NMISC) individually reported that in 2014 the Collaborative Program continued support for 2003 Biological Opinion (BiOp) Reasonable and Prudent Alternative (RPA) elements that included propagation and augmentation, fish salvage and rescue, species monitoring, and habitat restoration. Total funding through the three agencies was reported to be about \$6 million.

Collaborative Program efforts included continuation of the Minnow Action Team (MAT) to address water management for multiple purposes during the continuing drought conditions. Their efforts are described in the section of this report addressing drought management for the Middle Rio Grande (MRG). Reclamation reported that 1,445 cumulative acres of channel and habitat improvements has been constructed to meet requirements of the 2003 BiOp. The Corps reported it conducted habitat restoration efforts in the Albuquerque reach. The NMISC reported it was involved in many of the activities described above. It also continued production operations at the Los Lunas Silvery Minnow Refugium; constructed overbanking habitat with the City of Rio Rancho; continued to obtain and utilize water rights in MRG Strategic Water Reserve; and coordinated with Reclamation on its efforts to initiate a MRG water leasing program for the silvery minnow.

2003 Middle Rio Grande Programmatic BiOp

Reclamation reported that the federal agencies remained in compliance with the 2003 BiOp in 2014. Dry year flow targets were in effect in 2014. Reclamation reported that water management efforts allowed flow targets to be met throughout the year. The Service conducted rescue on 26.4 miles compared to 36.5 miles in 2013 and 51.0 in 2012.

In 2014, the Corps, Reclamation, Service, Colorado, New Mexico, and the MRGCD each received a notice of intent (NOI) to sue by the Wild Earth Guardians over Endangered Species Act (ESA) issues associated with the silvery minnow. Wild Earth Guardians filed suit against Reclamation and the Corps in July 2014. The MRGCD joined as an intervener in the lawsuit. In late 2014, Wild Earth Guardians dropped all charges in that lawsuit related to SJCP water. Motions to dismiss the lawsuit have been submitted by the Corps, Reclamation, and MRGCD

and are scheduled be heard in the spring.

Federal Agencies' Efforts towards a New Middle Rio Grande Water

Operations Biological Opinion

Formal Section 7 ESA consultation on water management operations in the MRG continued in 2014. Reclamation is working with its partners, the State of New Mexico and MRGCD, to revise their Biological Assessment (BA) to include the New Mexico meadow jumping mouse and the Western Yellow-Billed Cuckoo. In 2014 both species were listed as endangered and threatened, respectively. The Corps withdrew its BA in 2013 and in 2014 conducted a reassessment of its proposed actions and determined it did not need to consult at this time.

URGWOM Accounting Model

During 2014, representatives of Reclamation, Corps, and NMISC met to conduct quality assurance on model input river flow and reservoir data for the middle and upper Rio Grande in New Mexico and reviewed San Juan-Chama (SJC) contractor releases and water exchanges. Additional issues discussed included plans for movement of water during the spring runoff to support a silvery minnow spawn, accuracy of data, and importing final USGS data into the model. In addition, the Corps reported to the Engineer Advisers they are working on multiple model updates and new developments.

Compliance by Federal and State Agencies with State Water Law

The NMISC continues to track habitat restoration projects implemented by various federal and state agencies and accounts and reports for depletions related to them in the MRG. It coordinates with the New Mexico Office of the State Engineer (NMOSE) to determine if a permit is needed and to ensure the depletions are offset by the project sponsors. Due to below average spring snowmelt runoff flows in 2014, very few of the habitat restoration sites received water at that time. Consequently, only a very limited volume of depletions needed to be offset.

San Acacia Levee Project

The NMISC reported the Corps awarded a construction contract for Segment 1 (the Socorro Levee portion) of the San Acacia Levee Project in the fall of 2014. Construction began

the first week of January 2015. The NMISC continues to work with the Corps and the MRGCD on the Project, including planning for subsequent phases. The MRGCD and NMISC are local and cost share sponsors, respectively. The sponsors' non-federal cost share requirement will be approximately 15 percent of the total project cost, including money the Corps has spent to date. In February 2015, Wild Earth Guardians filed a lawsuit against the Corps and the Service over construction of the levee.

Elephant Butte Delta Channel Project

The Delta Channel (formerly termed the Pilot Channel) was successful in conveying the 2014 snowmelt runoff into the active reservoir pool at Elephant Butte Reservoir. Monsoonal precipitation in the MRG during the late summer caused periodic high flows through the channel with only minor erosion. From January through March of 2014, NMISC's contractor worked from the Low Flow Conveyance Channel (LFCC) outfall downstream to the top of the Narrows on general channel maintenance and to repair areas of bank erosion. Since 2003, New Mexico has spent nearly \$17 million to construct and maintain the Delta Channel.

Reclamation coordinated with the Service to maintain ESA compliance for the Delta Channel for 2014 maintenance work as part of the extended 2003 MRG Programmatic Water Operations BiOp. Reclamation submitted a new BA and received a corresponding 3-year BiOp. In partial fulfillment of the Delta Channel BiOp, NMISC continues to coordinate with Reclamation, New Mexico State Parks, and other stakeholders on a Southwestern willow flycatcher habitat restoration project below the reservoir.

Relinquishment Update

The total amount of Accrued Credit relinquished by Colorado since 2013 is 3,000 acre-feet. In 2014, Colorado stored 1,216 acre-feet of relinquishment credit in Platoro Reservoir. Total stored since 2013 is 1,749 acre-feet, leaving a balance of 1,251 acre-feet in Colorado's relinquishment account.

The total amount of Accrued Credit relinquished by New Mexico since 2003 is 380,500 acre-feet. In 2014, New Mexico stored 32,351 acre-feet in El Vado Reservoir. Relinquishment water storage to date totals 255,621 acre-feet, leaving a balance of 124,879 acre-feet available to be stored in future years when Article VII storage restrictions are in effect.

Gaging Station Review

Reclamation and the USGS continued their coordination regarding stream flow records for the gages below Elephant Butte and Caballo Dams. USGS reported on the final gage record for the Otowi and below Elephant Butte gages for 2014. At the Otowi gage, the USGS reported they experienced continued sedimentation problems that lead them to change the gage rating at the end of March. Sediment entering the river from Los Alamos Canyon as a result of the Las Conchas fire and summer monsoon flows continues to affect the stage at the gage, which is located immediately upstream. The USGS indicated they closely monitor the gage and seek to address stage changes resulting from monsoon inflow. However, due to ongoing gage access issues with San Ildefonso Pueblo, the USGS was not able to conduct measurements for most of the last two months of the calendar year. The USGS is working to finalize a formal agreement to address access issues.

The Rio Grande below Elephant Butte Dam gage record presented to the Engineer Adviser's in January 2015 was not final as understood by the Engineer Advisers at that time. Subsequent review by the USGS resulted in a reduction in the originally reported annual discharge record of approximately 7,000 acre-feet.

During 2014, the USGS reported that they reviewed and approved the 2014 Rio Grande below Caballo Reservoir flow records developed by Reclamation. Reclamation similarly indicated that they had received the 2014 Rio Grande below Elephant Butte Reservoir flow records developed by the USGS, but had not completed their review. Reclamation and the USGS provided the Engineer Advisers with their respective 2014 gaging records, rating curves and QA/QC analysis of the gage records.

During 2014, the NMISC continued its survey of water level elevations in Elephant Butte and Caballo Reservoirs. The results indicated that Reclamation's reservoir stage elevations were within the agreed upon threshold criteria (< 0.05 ft) at both reservoirs.

Mass Balance Review

The NMISC conducted a mass balance analysis for the Rio Grande between the Elephant Butte and Caballo gages for calendar year 2014. The mass balance analysis indicated that the reach gained water in ten out of twelve months with a total calculated gain of 23,000 acre-feet.

Most of the gain occurred during the July through September rainy period.

Gaging Station Operating Costs

The three Compact states equally split the costs of the operation of the Compact, including operation and maintenance of the Compact gaging stations. The Compact gages are operated by Colorado Division of Water Resources (CDWR), USGS and Reclamation. For the fiscal year ending on June 30, 2016, the costs charged by the CDWR average \$10,764 per gage, the costs charged by the USGS average \$16,146 per gage, and the cost charged by Reclamation to operate one gage is \$38,994.

The Colorado and New Mexico Engineer Advisers are concerned about the large difference in costs between what Reclamation charges to operate a gage and what the CDWR and USGS charge to operate a gage. The Colorado Engineer Adviser is also concerned about the operational cost of this gage nearly doubling from last year's cost without any detailed information provided to justify the increase.

The Engineer Advisers request that Reclamation investigate ways to ensure accurate flow data is obtained for this gage in a cost effective manner. The Engineer Advisers are concerned that equipment previously purchased in part by the Compact states is not currently being utilized. It is requested that Reclamation report to the Engineer Advisers on these issues on or before the next Engineer Advisers' meeting.

Additionally, Reclamation expressed an interest in moving the Rio Grande below Caballo gage station to the opposite side of the river. Reclamation stated that power would be more easily accessible if the gage was moved, and access to the gage would be easier. According to Article V of the Compact, movement of a Compact gage requires approval of the Commission.

Proposed Review of Compact Accounting Data

Based upon communication with the agencies providing data to the USGS and the Engineer Advisers for annual Compact accounting, the Engineer Advisers are planning to change the Engineer Advisers' meeting to the first week in March of each year. The change is made in order to allow more time for developing, reviewing, and finalizing required Compact accounting records.

In addition, the Engineer Advisers are developing and will communicate to Colorado,

New Mexico, USGS, Reclamation, and Corps a general process and timeline procedure for development, evaluation, and approval of required Compact accounting records.

Rio Grande Salinity Management Coalition

The Engineer Advisers continued to work with the Rio Grande Salinity Management Coalition (Coalition) evaluating the feasibility of salinity capture and treatment in the Rio Grande from San Acacia, New Mexico to Fort Quitman, Texas, with emphasis on the Rio Grande Project region. The primary objective of the Coalition is to identify and implement salinity reduction strategies that will reduce impacts, improve Rio Grande water quality, and extend existing water supplies in the fast-growing Rio Grande Project area.

The work is being done with the Corps under its Section 729 authority in the Water Resources Development Act. New Mexico and Texas each contributed \$250,000 toward the 25% non-federal cost share. Currently, work continues on further economic analysis of the proposed alternative projects. It is anticipated the project will be complete in 2015.

Cochiti Reservoir Deviation

At both the 2014 and 2015 Engineer Adviser meetings, the Corps reported that their “spawning and recruitment deviation authority” expired in 2013 and they have no discretion to request future deviations. The Engineer Advisers discussed with the Corps’ the steps necessary to conduct these types of deviations in the future. The Corps indicated that Congressional authorization would be required.

YEAR 2014 OPERATIONS

In 2014, there were no significant wildfire impacts to the Rio Grande watershed in either Colorado or New Mexico. This stands in significant contrast to 2013, when several major wildfires impacted the Rio Grande watershed in both New Mexico and Colorado. The effects of previous wildfires on the watershed are likely to continue for many years.

Closed Basin Project

Reclamation reported the total production of the Closed Basin Project in 2014 was 11,213 acre-feet, with 7,598 acre-feet of that amount delivered to the Rio Grande. The remainder of the water produced was delivered to various federal lands along the project to be used as mitigation

for the project footprint. All of the water delivered to the Rio Grande in 2014 was of sufficient quality to qualify for credit under the Compact. Reclamation continues to address problems of biofouling in the production wells of the Closed Basin Project. Reclamation replaced four wells in 2014 that were most affected by iron bacteria, and rehabilitated numerous other wells. To date, 76 of the 150 original wells have been replaced. Wells will continue to be replaced as budgetary constraints allow in an effort to help maintain production of the project.

Platoro Reservoir

The Colorado Engineer Adviser reported that during 2014, Colorado stored 1,216 acre-feet of its relinquishment credit in Platoro Reservoir.

In May and June 2014, the Conejos Water Conservancy District stored pre-compact direct flow water by exchange in Platoro Reservoir. This pre-Compact water was re-regulated and released later in the summer to better meet crop irrigation requirements and therefore did not impact the annual amount of increase in storage. This operation is done routinely pursuant to a Colorado Water Court decree which allows pre-compact irrigation water, which otherwise would have been diverted to irrigate crops, to be stored for a short time in Platoro Reservoir and then released later in the same season to meet irrigation demands. The Colorado Engineer Adviser indicated all of the re-regulated water was accounted for and released during the summer of 2014, thereby not affecting the Conejos index supply.

The Engineer Adviser for Texas points out that while this action has occurred and been reported historically, Article VII of the Compact says “Neither Colorado nor New Mexico shall increase the amount of water in storage in reservoirs constructed after 1929 whenever there is less than 400,000 acre-feet of usable water in project storage...”

Colorado Groundwater Regulations

The State Engineer of Colorado continues to develop rules and regulations concerning the use of groundwater in the Upper Rio Grande Basin in Colorado. These rules will require the owners of most large capacity wells in the Rio Grande Basin in Colorado to develop a plan to augment any injurious depletions, which their wells may cause to other water rights. In the alternative, the owners may enter into an agreement with a subdistrict to replace those depletions through a groundwater management plan. The rules and regulations are scheduled to be

completed in the spring of 2015. As an integral part of these rules, the State Engineer has completed the development of the Rio Grande Decision Support System Model. This model captures the interaction between surface and groundwater and shows the effect that wells have on senior surface water rights.

Nichols and McClure Reservoirs Outlet Reconstruction

In 2013, the City of Santa Fe began reconstruction of the outlet works at Nichols Reservoir. The Nichols Reservoir project was completed by May 2014 and the reservoir was partially refilled by the end of 2014. McClure Reservoir was emptied by July 2014 in preparation for reconstruction of the outlet works and remained empty for the duration of 2014. Santa Fe anticipates completion of the project at McClure Reservoir by November 2015.

Minnow Action Team

In 2014 the MAT provided seasonal and annual assessments and recommendations for water management and other associated activities based on water availability, runoff forecasts, and species needs. Because of the low Rio Grande silvery minnow numbers caused by the continued drought, the MAT focused on activities that could result in a May flow that would enhance minnow spawning. Approximately 20,000 acre-feet of stored water (2013 SJC exchange and native water resulting from the updated Abiquiu Reservoir area capacity table) was released to create a flow of 1,500 cfs at the Albuquerque gage from May 9 to May 13.

In addition, MRGCD outfalls were monitored for a second year, assessing their viability to serve as refugia for Rio Grande silvery minnow during extended periods of river drying. The MAT used adaptive management as part of the effort.

Reclamation's Middle Rio Grande Supplemental Water Program

Reclamation's supplemental water program is intended to provide additional water, primarily obtained through the voluntary leasing of SJCP water, for endangered species needs and compliance with the 2003 BiOp. In 2014, Reclamation reported it released a total of 16,126 acre-feet of leased SJCP water, and 7,988 acre-feet of Emergency Drought Water Agreement (EDWA) water to ensure compliance with BiOp flow requirements. The water releases were made as needed from early April through early October.

Reclamation indicated it continued to maintain portable pumping stations at four locations on the LFCC in the San Acacia reach. The pumps were operated from late May through the first day of November to pump 12,941 acre-feet from the LFCC to the Rio Grande under a permit issued by the NMOSE.

San Juan Chama Water Exchange at Elephant Butte

In November 2014, Santa Fe approached the New Mexico Engineer Adviser requesting an exchange of their SJCP water from Elephant Butte Reservoir to El Vado Reservoir. The exchange was completed in coordination with the New Mexico Engineer Adviser, Reclamation, the Middle Rio Grande Conservancy District (MRGCD), and the Albuquerque Bernalillo County Water Utility Authority. In addition, the New Mexico Engineer Adviser coordinated with the Engineer Advisers for Colorado and Texas. Reclamation coordinated with the Six Middle Rio Grande Pueblo Water Coalition. The necessary approvals and concurrence were secured, and on November 24, 2014, the exchange was completed. The exchange involved a one for one transfer between SJCP and native Rio Grande accounts at Elephant Butte and El Vado Reservoirs. At Elephant Butte Reservoir, 11,388 acre-feet of SJCP water from Santa Fe's account was transferred to native Rio Grande Project Usable Water. At El Vado Reservoir, 11,388 acre-feet of native Rio Grande water was transferred to two SJCP accounts: 8,388 acre-feet to Santa Fe's SJCP account and 3,000 acre-feet to Reclamation's SJCP account.

Six Middle Rio Grande Pueblos Prior and Paramount Operations

Reclamation and BIA each reported that their 2014 projected storage volume for the six Middle Rio Grande Pueblo P&P operation was 30,700 acre-feet. Because of the low runoff, Reclamation was only able to store a total of 18,000 acre-feet in El Vado Reservoir in 2014 for P&P operations in the event that natural flows were insufficient to meet demand later in the year. The 18,000 acre-feet was stored between January and June 2014 when the Article VII storage restriction was in effect. During the 2014 irrigation season, none of the water was released because sufficient natural direct flow occurred. The stored water suffered 873 acre-feet of evaporative loss over the summer, leaving 17,127 acre-feet by November 15. Of that water 11,388 acre-feet were exchanged in El Vado Reservoir as part of a SJCP water exchange at

Elephant Butte Reservoir. The remainder of the water, 5,739 acre-feet, was released to the Elephant Butte Reservoir between November 15th and December 25th, 2014.

Based on the February 1, 2015 most probable snowmelt runoff forecast, the BIA reported that Reclamation will likely store about 22,888 acre-feet for their P&P operation in 2015, should the snowmelt runoff be sufficient.

The BIA reported that it has not taken a position on the carryover issue and is discussing the matter with Department of Interior officials. The Engineer Advisers do not support the carryover of unused stored water from the P&P operations.

The Engineer Advisers remain concerned about the procedures for quantifying storage, release and delivery of water for the P&P lands of the six Middle Rio Grande Pueblos. The Texas Engineer Adviser remains concerned about the storage of native Rio Grande water in El Vado Reservoir by Reclamation when the storage restrictions of Article VII are in effect.

Rio Grande Project Operations

Reclamation reported a final 2014 release from Caballo Reservoir of 306,900 acre-feet for all three Rio Grande Project water users: El Paso County Water Improvement District No. 1 (EP No. 1), Elephant Butte Irrigation District (EBID), and Mexico. Reclamation indicated it used the 2008 Operating Agreement methodology to make end of year allocations to EBID at the diversion headings of 107,659 acre-feet (99,007 acre-feet were delivered, resulting in a carryover of 8,652 acre-feet to 2015), and to EP No.1 of 100,103 acre-feet (97,418 acre-feet were delivered resulting in a carryover of 2,685 acre-feet). During 2014, Mexico's diversion allocation was 18,216 acre-feet; 18,261 acre-feet were delivered. Reclamation's report indicates flows into Hudspeth County Water Conservation and Reclamation District No. 1 during 2014 were 15,999 acre-feet. They reported deliveries by EP No.1 to the City of El Paso were 16,872 acre-feet.

Reclamation reported that releases started on May 27, 2014 and continued through August 22, 2014 with a total Project release during this period of 306,900 acre-feet. The USGS reported the total annual flow at the gage below Elephant Butte dam was 293,400 acre-feet. Elephant Butte Reservoir peaked at 378,177 acre-feet on May 26, 2014, and storage at Caballo Reservoir peaked at about 40,620 acre-feet on March 4, 2014. End-of-year storage at Elephant Butte Reservoir was 256,371 acre-feet, which included 3,566 acre-feet of SJCP water. The end of year storage at Caballo Reservoir was 32,485 acre-feet. Reclamation further reported that

Usable Water in Project Storage remained below the Article VII limit for the entire year.

At the 2015 Engineer Adviser meeting, New Mexico asked Reclamation for the final 2013 and 2014 Rio Grande Project allocation, diversion and charges spreadsheets. Reclamation provided 2014 end of year records.

The New Mexico Engineer Adviser expressed concern about use of the 2008 Operating Agreement for Rio Grande Project Operations, changes in Reclamation's reported annual allocation and delivery values since 2008, and that Rio Grande Project operational changes have been made that are not consistent with the Operating Manual.

Reclamation indicated it will continue to conduct start of the irrigation season and end of season update meetings. This procedure began in 2014 for the Engineer Advisers and other interested parties.

ADDITIONAL FEDERAL AGENCY REPORTED INFORMATION

Representatives of USGS, Reclamation, Corps, Service, and IBWC presented additional information to the Engineer Advisers as summarized below:

U. S. Geological Survey

The Engineer Advisers received reports from the USGS on their Upper Rio Grande Basin projects. The USGS reported they will initiate a WaterSmart study in October 2015 of water use, groundwater/surface water interaction, and groundwater level changes in the Upper Rio Grande Basin from 1985 to 2010. The USGS indicated they are getting support from New Mexico and have requested support from Colorado and Texas entities.

The USGS also reported that it is developing surface water and groundwater model for the Rincon and Mesilla Valley's of New Mexico and has been asked by Department of Justice and Department of Interior to speed up the model development. Department of Justice would like a completed model this year while the USGS was planning on completing it by October 2016. USGS indicated the modeling does not include the El Paso to Fort Quitman area.

Corps Rio Grande Environmental Management and Planning and Assistance to States Study

The Corps reported that WRDA 2014 was signed into law in June 2014. The legislation contains language that would extend the authorization for the Rio Grande Environmental Management Program through 2019. However, no funding was provided.

Further, the Corps reported on the cost share agreement regarding the Planning and Assistance to the States Study that the three States and the Corps were hoping to conduct. The study was intended to result in a report that would provide support for a Corps' budget request for the Rio Grande Environmental Management Program. The Corps reported they had been unable to date to get internal approval to proceed with the study using the Planning and Assistance to the States Program.

Zebra Mussels/Quagga Mussels

The Engineer Advisers continue to be concerned about the possible infestation of Zebra and Quagga mussels in the Upper Rio Grande basin and their possible spread throughout the entire basin. Three reservoirs in New Mexico; Sumner, El Vado and Navajo, had been suspect in the past due to positive microscopic veliger tests. However, fortunately, subsequent testing has been negative. Reclamation has sampled its New Mexico reservoir bodies since 2009. Sampling in 2014 revealed no positive tests.

Seven mussel decontamination station locations have been designated at Heron, El Vado, Elephant Butte Main Ferry, Elephant Butte Hot Springs, Sumner, and two sites at Brantley Reservoir. Reclamation also continues education, outreach and training efforts aimed at protecting New Mexico's water bodies.

Rio Grande Silvery Minnow

The Service reported on their October annual monitoring in the MRG using the twenty specific sites. During the October survey silvery minnows were not detected at any of the 20 sites. Subsequent statistically based monitoring showed a density of 1.5 silvery minnow per 100 square meters. The Service indicated that no population wide improvement has been observed since 2012.

In 2014, silvery minnow spawning was documented by egg collection in May and June at three monitoring locations in the MRG (Angostura, Isleta, San Acacia). Approximately, 29,300 eggs were collected. In 2014, approximately 268,318 silvery minnow were released in the MRG from the hatchery program.

The Service reported that 26.4 miles of the main channel of the river in the MRG became intermittent. Intermittency occurred in the Isleta reach (3.3 miles) and San Acacia reach (23.1 miles). In 2014, 530 adult silvery minnow and 29 live young of year were found in isolated pools within the river. Seventy silvery minnow were found dead due to water operations. The 2014 incidental take authorized in 2014 was 12, 952 silvery minnows.

Middle Rio Grande Project Channel Maintenance

Reclamation's report indicates it is pursuing work at 19 active priority sites along the MRG Project reach where bank erosion or reduced channel capacity could cause levee failure. Of the active priority sites, six require an annual review of channel capacity and possible maintenance due to sediment accumulation. In 2014, Reclamation completed work at five sites (San Ildefonso pond, Peralta Canyon Arroyo, Santo Domingo RM 224.6, Santo Domingo RM 223.9, and Santa Ana Pueblo 205.8). They further reported that the work completed at Peralta Canyon Arroyo should be sufficient to allow a 5,000 cfs flow to pass safely.

Vegetation Management at Elephant Butte and Caballo Reservoirs

Reclamation continued vegetation management efforts at Elephant Butte and Caballo Reservoirs in 2014 through a cooperative agreement funded by the NMISC. Reclamation reported that during their 2014 fiscal year, a total of 2,985 acres were treated at Caballo Reservoir under the program by mowing, mulching, and herbicide treatment. Reclamation reported that herbicide treatments occurred on 110 acres at Caballo in 2014.

Southwestern Willow Flycatcher

On August 15, 2014 the Service completed a 5-Year Review of the Southwestern willow flycatcher, evaluating issues related to its status. The review resulted in no change to the species' status. The Service was asked about possible petition to delist the Southwestern willow flycatcher based on genetic testing. The Service responded they are aware of the situation but

these evaluation processes take multiple years.

Reclamation conducted surveys and nest monitoring of the flycatcher in New Mexico. The flycatcher territories in the San Marcial Reach have been increasing since 2012. Reclamation reported that the habitat is in transition and the nesting sites are moving south. The Service reported the nesting success in the MRG was 30%, which is the lowest ever. The low success rate is thought to be partially due to thinning of the habitat foliage cover due to the tamarisk leaf beetle and the increase in raptor population within the region. The poor success rate has the potential to cause a decrease in the territories observed in 2015.

Reclamation and the Service individually reported that Southwestern willow flycatcher and Yellow Billed Cuckoo are nesting in vegetation that has grown up in the exposed delta of Elephant Butte Reservoir. A number of flycatcher territories are now located south of the Narrows and many Yellow Billed Cuckoo territories are located in the narrows. Reclamation reported that they intend to address endangered species and Rio Grande Project operations as part of the Rio Grande Project EIS by using their Flycatcher Management Plan. The EIS is anticipated to be substantially complete in 2015.

Reclamation's Rio Grande Project Operations Plan for 2015

Reclamation reported preliminary Rio Grande Project diversion allocations for 2015. Reclamation's preliminary allocations as of February 1, 2015 are 94,344 acre-feet for EBID, 68,269 acre-feet for EP#1, and 11,351 acre-feet for Mexico. Reclamation indicated that the irrigation season is projected to begin on May 18th for EBID and June 1st for EP#1 and Mexico. Reclamation estimates, based on the February 1, 2014 most probable snowmelt runoff forecast, that inflow to Elephant Butte Reservoir during the March through July time period will be approximately 15-30% of the 30-year average. Reclamation also reported that they anticipate Article VII restrictions will remain in effect for the entire year.

Silvery Minnow 10(j) Reintroduction in Big Bend-Texas

Monitoring of the Big Bend 10(j) population in Texas occurred on April 10th and June 4th. Three silvery minnow were captured during each monitoring event. The Service reported that 70,523 silvery minnow were released in 2014. The Service continues to periodically monitor the success of the Big Bend population.

Additional Listing Information Provided by the Service

The Service reported on the status of work on issues for three additional species: the New Mexico Meadow Jumping Mouse, the Yellow-Billed Cuckoo, and the Rio Grande Cutthroat Trout. The Jumping Mouse was listed as endangered on June 10, 2014. Critical habitat designation will soon be published.

The Yellow-Billed Cuckoo was listed as a threatened species on October 3rd. The public comment period on the critical habitat designation closed on January 12, 2015. The Service is in the process of developing a final critical habitat rule.

A species status assessment was conducted on the Rio Grande Cutthroat Trout. The assessment found that listing was not warranted.

International Boundary and Water Commission Activities

The IBWC provided a report of its activities along the Rio Grande in New Mexico and Texas during 2014. IBWC discussed updating their River Management Plan. The plan includes channel maintenance activities including sediment removal. Sediment removal in 2014 occurred at eleven sites and totaled 131,732 cubic yards. Disposal of the sediment continues to be an issue.

IBWC indicated that Mexico was allocated 30% of a full supply (18,000 acre-feet) at the International Diversion Dam heading in 2014. 2015 is projected to be less than a full supply. Mexico has agreed to begin taking water when the two districts begin taking water.

The IBWC discussed their Rio Grande rectification levee projects and their levee rehabilitation projects to meet FEMA accreditation standards. Currently no levees meet the FEMA standards, although some areas have been submitted for approval. Environmental restoration activities are occurring at eleven sites with an estimated 20,000 trees to be planted by the spring of 2015.

IBWC completed a Water Budget Study in January 2014. The study is intended to help IBWC make informed decisions on timing and volume of releases to maximize efficiencies. IBWC by letter dated April 10, 2014 asked the Rio Grande Compact Commissioners and the Federal Chair for support.

ENGINEER ADVISER RECOMMENDATIONS

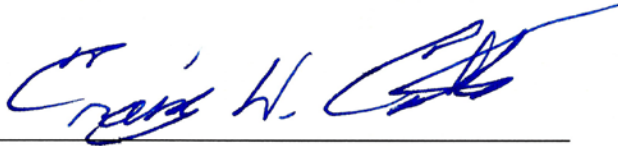
The Engineer Advisers recommend the Commission amend the Rules and Regulations for Administration of the Compact to reflect that the annual meeting of the Commission will occur between mid-March and mid-April of any year. It is further recommended that the Rules include rotating the location of the annual meeting in sequence between Colorado, New Mexico, and Texas.

It is suggested that the Legal Committee and the Engineer Advisers draft proposed language for Commission consideration at the 2016 RGCC meeting.

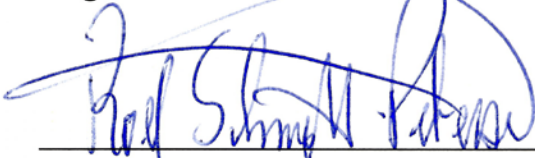
BUDGET

The Engineer Advisers reviewed the cost of operation for the year ending June 30, 2014 and the budget for the fiscal year ending June 30, 2016. The Engineer Advisers found that the expenses for gaging stations and administration of the Compact for the year ending June 30, 2014 were \$189,179. The United States federal government bore \$51,992 of this total, with the balance of \$137,187 borne equally by the three states.

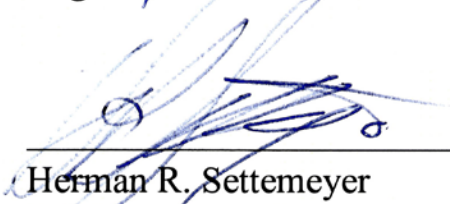
The proposed budget for the fiscal year ending June 30, 2016 indicates a total of \$230,953 will be spent for gaging and administration, with a proposed contribution by the United States federal government of \$62,908.



Craig W. Cotten
Engineer Adviser for Colorado



Rolf Schmidt-Petersen
Engineer Adviser for New Mexico



Herman R. Settemeyer
Engineer Adviser for Texas

The Colorado Engineer Adviser's Addendum to the 2015 Engineer Advisers' Report

March 24, 2015

At the 2015 Rio Grande Compact Commission (RGCC) Engineer Advisers' meeting held in Albuquerque, New Mexico on February 23-27, 2015, the Engineer Advisers did not reach consensus on the 2014 Rio Grande Compact (Compact) Accounting. The lack of consensus stems from the continuing disagreement regarding Colorado and New Mexico Credit Water that Reclamation released in 2011 and possibly in 2012, the appropriate accounting of 2011 and 2012 Colorado and New Mexico deliveries that were affected by Reclamation's release beyond the available Usable Water, and the directly relevant 2006 direction of the RGCC to Reclamation. There was no release of credit water by Reclamation in 2014 and the Engineer Advisers did not reach consensus on the accounting of the 2014 streamflow numbers. However, because of the effects of the releases of credit water in previous years, the accrued credits of Colorado and New Mexico in 2014 could not be agreed upon or finalized.

The Colorado Engineer Adviser presents for the Commission's consideration two methods of accounting for the 2014 calendar year Compact Accounting:

1. Method 2: Colorado and New Mexico Credit Water was released during 2011, and accounted as being reduced in the month it was released, as in a relinquishment.
2. Method 3: Colorado and New Mexico Credit Water was released during 2011 and 2012, accounted as being reduced in the month it was released; but then exchanged back into storage in Elephant Butte Reservoir before the end of the year as new inflow arrived, as in a loan.

In both instances, the Credit Water will have been reduced for evaporation at the end of the calendar year – in accordance with Article VI of the Compact and the 2006 direction of the RGCC to Reclamation. The Colorado Engineer Adviser carried forward the end of 2013 accounting results for the particular Method used through the 2014 calendar year. Both methods comply with the last paragraph of Article VI of the Compact, wherein Credit Water in Elephant Butte Reservoir is “reduced annually to compensate for evaporation losses in the proportion that such credits (or debits) bore to the total amount of water...during the year.” The results for 2014 for both methods are summarized below.

Method 2:

Under this method, Reclamation released accrued Credit Water from Elephant Butte Reservoir during the summer of 2011 unilaterally and without the permission of Colorado or New Mexico. This unauthorized release coupled with normal compact accounting resulted in 2014 Accrued Credits for Colorado that are less than those calculated in the Texas accounting method (Method 1). Method 2 results in Colorado having an Accrued Credit status for the end of year 2014 of 6,700 acre-feet.

The difference in Compact compliance status between the Texas method and Method 2 (minus 100 acre-feet for Colorado) illustrates the effect of Reclamation's 2011 release of Credit Water on Colorado Compact compliance carried forward through 2014. Unlike an authorized relinquishment, however, Colorado did not receive the Article VII benefit of being able to store a like amount of water to that released by Reclamation in 2011 in post-compact reservoirs in the future when Article VII of the Compact is in effect.

Method 3:

The accounting in this method reflects a "loan of credit water." This accounting option closely resembles the method approved for use in 1951 by the RGCC when Colorado loaned a portion of its credit water at the request of the Texas Commissioner.

In this Method of accounting, Reclamation released accrued Credit Water from Elephant Butte Reservoir during the summer of 2011 (approximately 33,000 acre-feet total) and summer of 2012 (approximately 12,000 acre-feet total). These releases are accounted as being negative Usable Water. Then, as additional water flowed into Elephant Butte Reservoir and releases from the reservoir ceased, the Credit Water would be accounted as being replenished by the inflowing water. Based on this method, the Accrued Credits of Colorado for the end of calendar year 2014 are 6,900 acre-feet.

Summary

The Colorado Engineer Adviser believes that the Texas method (Method 1) of accounting as put forth in the Texas addendum contravenes the last unnumbered paragraph of Article VI of the Compact and the unanimous direction of the Commission to Reclamation in 2006. Therefore, the Texas method is not acceptable to the Colorado Engineer Adviser.

No after-the-fact accounting can address the primary issues that occurred in 2011 and 2012 when Reclamation made its unauthorized releases of accrued Credit Water, which are:

- 1) Colorado and New Mexico have sole authority to decide the disposition of any of their respective accrued Credit Water; and
- 2) Reclamation's actions denied Colorado and New Mexico the benefits associated with relinquishments or other negotiated solutions under the Compact and eliminated Texas' incentive to negotiate the terms of a relinquishment or other negotiated solution during drought times.

The two methods proposed above are suggestions for the Commission's consideration. The Colorado Engineer Adviser recognizes that no accounting method may be approved without the unanimous approval of the Commission, and that any accounting method must not violate the express terms of the Compact.

New Mexico Addendum to the 2015 Engineer Advisers' Report to the Rio Grande Compact Commission

March 2015

At the 2015 Rio Grande Compact Commission (RGCC) Engineer Advisers' meeting held in Albuquerque New Mexico on February 23-27, 2015, the Engineer Advisers did not reach consensus on a method by which to conduct some portions of Rio Grande Compact (Compact) Accounting. The lack of consensus stems from the continuing disagreement, raised in litigation brought by New Mexico against the U.S. Bureau of Reclamation (Reclamation), regarding New Mexico and Colorado Credit Water that Reclamation released in 2011; the appropriate accounting of 2011, 2012, 2013, and 2014 New Mexico and Colorado deliveries that were affected by Reclamation's unilateral and unauthorized release beyond the available Usable Water; and the directly relevant 2006 direction of the RGCC to Reclamation regarding the accounting and release of accrued Credit Water.

The Texas Engineer Adviser conducted Compact accounting for the 2014 calendar year using a method (referred to as Method 1, below) that reduces Credit Water for evaporation monthly during the calendar year. The method was put forward to the Commission by Texas and Reclamation in 2012 but is contrary to Article VI of the Compact and the 2006 direction of the RGCC to Reclamation.

The New Mexico Engineer Adviser conducted Compact accounting for the 2014 Calendar year using the same method (referred to as Method 2, below) that he and the Colorado Engineer Adviser proposed in 2012 (see the 2012 New Mexico and Colorado addendum to the 2012 Engineer Adviser Report). The method reduces Credit Water for evaporation at the end of the calendar year in accordance with Article VI of the Compact and the 2006 direction of the RGCC to Reclamation. The New Mexico Engineer Adviser carried forward the end of 2011 accounting results for Method 2 through the 2012, 2013, and 2014 calendar years. The results for 2014 for both methods are summarized below.

Method 1--Reduce Credit Water For Evaporation Monthly During the 2014 Calendar Year --

Method 1 (See Table of Methods: Method 1) was used by the Texas Engineer Adviser. Based on this method, the Compact credit status of Colorado and New Mexico at the beginning of 2015 would be 6,800 acre-feet and 11,800 acre-feet, respectively. However, as described in the 2012 New Mexico and Colorado addendum to the 2012 Engineer Adviser Report, Method 1 contravenes the last unnumbered paragraph of Article VI of the Compact and the unanimous direction of the RGCC to Reclamation in 2006.

The New Mexico Engineer Adviser believes that approval of Method 1 would require the RGCC to disregard the explicit language of the Compact and is contradictory to the unanimous RGCC directive in 2006. Therefore, Method 1 is not acceptable to the New Mexico Engineer Adviser.

Method 2--Reduce Credit Water for Evaporation at the end of the Calendar Year -

Method 2 (See Table of Methods: Method 2) was used by the New Mexico Engineer Adviser. Method 2 complies with the last paragraph of Article VI of the Compact, wherein Credit Water in Elephant Butte Reservoir is “reduced annually to compensate for evaporation losses in the proportion that such credits (or debits) bore to the total amount of water...during the year”. Accrued Credit Water is held constant during the calendar year and Usable Water is then accounted during the year as defined in Article I(I).

This method acknowledges the physical act and reality that Reclamation released some of New Mexico and Colorado’s accrued Credit Water from Elephant Butte Reservoir during the summer of 2011 unilaterally and without the permission of New Mexico or Colorado. This unauthorized release coupled with normal -Compact accounting resulted in 2014 Accrued Credits for Colorado and New Mexico that are less than those calculated in Method 1. Method 2 resulted in Accrued Credits at the beginning of 2014 of 5,100 acre-feet for Colorado and 62,400 acre-feet for New Mexico. The New Mexico Adviser used those values as input for the 2014 Compact accounting. Consequently, the Compact compliance status for Colorado and New Mexico at the beginning of 2015 would be 6,700 acre-feet and zero acre-feet, respectively.

The difference in Compact compliance status between Method 1 and Method 2 (minus 100 acre-feet for Colorado and minus 11,800 acre-feet for New Mexico) depicts the effect of Reclamation’s 2011 release of Credit Water on Colorado and New Mexico Compact compliance accounting carried forward through 2014.

If Reclamation’s 2011 release had been an authorized relinquishment, New Mexico and Colorado would have received Article VII benefits, to which they are entitled under the Compact. However, neither New Mexico nor Colorado received the Article VII benefit of being able to store a like amount of water to the Credit Water released by Reclamation in 2011 (33,825 acre-feet) in the future when the Article VII of the compact storage restriction is in effect. New Mexico and Colorado were denied Article VII benefits because the releases by Reclamation were unauthorized.

Summary

No after-the-fact accounting can address the harm that occurred in 2011 when Reclamation made its unauthorized releases of accrued Credit Water, which are:

- 1) New Mexico has sole authority to offer to relinquish any of its respective accrued Credit Water; and
- 2) Reclamation's continued denial of the upstream states' benefits associated with relinquishments under the Compact (the right to store water in certain reservoirs upstream of Elephant Butte when otherwise prohibited to do so under Article VII) and elimination of the Texas' incentive to meet with either Colorado or New Mexico and accept a relinquishment during drought times. That incentive being the ability of downstream users to receive water from Elephant Butte Reservoir that otherwise would not be available under the Compact.

Absent an explicit agreement by Reclamation to abide by the last unnumbered paragraph of Article VI of the Compact and the RGCC's 2006 directives regarding the accounting and release of accrued Credit Water, the New Mexico Engineer Adviser recommends that the RGCC not approve any compact accounting for 2011, 2012, 2013, and 2014 until the underlying issues are resolved.

**Addendum Engineer Advisers Report
Texas Engineer Adviser
March 24, 2015**

The Engineer Advisers to the Rio Grande Compact Commission (Commission) were unable to reach agreement on the Accounting of water deliveries for 2014. The issue centered on how the evaporation losses on Credit Water are calculated and tabulated and are carried forward from the 2011 and 2012 Water Accounting. Three separate accountings were developed in 2014 and labeled as Method 1, 2, and 3. The Texas Engineer Adviser proposes that Method 1 be accepted and thus bases his calculations on that method.

The history of this issue is addressed in a memorandum from the Engineer Advisers to the Commission dated March 23, 2006. As described in the memorandum, the Commission has been inconsistent in the way it has tabulated Credit Water in storage based on evaporation losses during the year. There are times when the Commission has approved an accounting where Credit Water is held constant each month and the Credit Water is only reduced at the end of the year, even though the calculation of Credit Water evaporation is a summation of monthly evaporation amounts. Under Method 3, whenever Usable Water amounts go negative and Credit Water was released, those amounts were repaid immediately as inflows occur. The Commission has on occasion approved this method. Under Method 2, whenever Usable Water amounts go negative and Credit Water was released, those amounts were never repaid. As understood by the Texas Engineer Adviser, the Commission has never approved Method 2. Also, there are times when the Commission has approved the evaporation of Credit Water monthly (Method 1). That is, Credit Water and Usable Water are subject to evaporation as it occurs. Under this method, the Texas Engineer Adviser understands that Usable Water has not gone negative.

The Engineer Advisers presented recommendations to the Commission on this issue in 2006. The Commission approved three recommendations. The recommendations were:

The Commission direct that accrued Credit Water be held constant during the year.

The Commission direct the Engineer Advisers to meet if the total combined accrued Credit Water exceeds 150,000 acre-feet and Usable Water is less than a full allocation or if the combined accrued Credit Water exceeds 50% of Project Storage and make a recommendation to the Commission regarding optimum use of water in Project Storage for Commission approval.

The Commission direct Reclamation to allocate or release Credit Water only as directed by the Commission.

The Engineer Advisers have not agreed on a recommendation and the Commission has not approved a proposal to optimize the use of water in Project Storage. Therefore, since one of the methods historically approved by the Commission was to tabulate evaporation of credit water on a monthly basis, the U. S. Bureau of Reclamation operates the Rio Grande Project with this historical practice and allocates the monthly tabulated evaporation of Credit Water to Usable Water.

COMPACT ACCOUNTING 2014 - METHOD 1

The Texas Engineer Adviser has reviewed the streamflow and reservoir storage records and other pertinent data for calendar year 2014. This method, recommended by the Texas Engineer Adviser, reduces the Credit Water evaporation monthly. The scheduled and actual deliveries, release of Usable Water for the year 2014, and balances as of January 1, 2015 are as follows:

(a) Deliveries by Colorado at the State line:

Balance as of January 1, 2014	5,300 acre-feet
Scheduled delivery	237,400 acre-feet
Actual delivery at Lobatos plus 10,000 acre-feet	240,100 acre-feet
Reduction of credit water on account of evaporation	1,200 acre-feet
Accrued credit January 1, 2015	6,800 acre-feet

(b) Deliveries by New Mexico at Elephant Butte Dam:

Balance as of January 1, 2014	77,700 acre-feet
Scheduled delivery	333,000 acre-feet
Actual delivery	284,600 acre-feet
Reduction of credit on account of evaporation	17,500 acre-feet
Accrued credit January 1, 2015	11,800 acre-feet

(c) Project Storage and Releases:

Accrued departure (credit) as of January 1, 2014	1,565,800 acre-feet
Actual release of Usable Water	306,900 acre-feet
Normal release for year	790,000 acre-feet
Accrued departure (credit) as of January 1, 2015	1,715,800 acre-feet
Under release capped at 150,000	

Method 1: Reduce Credit Water for Evaporation Monthly during the 2014 Calendar Year - Developed by Texas and Reclamation
RIO GRANDE COMPACT - DELIVERIES BY COLORADO AT STATE LINE
 YEAR 2014 - Method 1

Quantities in thousands of acre feet to nearest hundred

MONTH	CONEJOS INDEX SUPPLY										RIO GRANDE INDEX SUPPLY								DELIVERIES			
	MEASURED FLOW				ADJUSTMENTS				SUPPLY		RECORDED FLOW NEAR DEL NORTE	ADJUSTMENTS					SUPPLY		CONEJOS RIVER AT MOUTH NEAR LASAUCES	RIO GRANDE LESS CONEJOS RIVER	RIO GRANDE AT LOBATOS	ACCUMULATED TOTAL AT LOBATOS
	CONEJOS AT MOGOTE	LOS PINOS NEAR ORTIZ	SAN ANTONIO AT ORTIZ	TOTAL	STORAGE AT END OF MONTH ^d	CHANGE IN STORAGE ^e	OTHER ADJUSTMENTS	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL		STORAGE AT END OF MONTH	CHANGE IN STORAGE	TRANSMOUNTAIN DIVERSIONS ^b	OTHER ADJUSTMENTS ^a	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	-----	-----	-----	-----	6.3	-----	-----	-----	-----	0.0	-----	0.2	-----	-----	-----	-----	-----	0.0	-----	-----	-----	0.0
JAN	2.4	-----	-----	2.4	6.5	0.2		0.2	2.6	2.6	11.8	0.2	0.0			0.0	11.8	11.8	3.2	12.7	15.9	15.9
FEB	2.5	-----	-----	2.5	6.7	0.2		0.2	2.7	5.3	12	0.2	0.0			0.0	12.0	23.8	4.2	14.6	18.8	34.7
MAR	4.4	-----	-----	4.4	7.1	0.4		0.4	4.8	10.1	17.2	0.2	0.0			0.0	17.2	41.0	6.6	22.3	28.9	63.6
APR	20.9	14.6	3.3	38.8	6.9	-0.2		-0.2	38.6	48.7	77.3	0.2	0.0			0.0	77.3	118.3	2.2	9.7	11.9	75.5
MAY	51.2	20.4	1.5	73.1	10.6	3.7	0.1	3.8	76.9	125.6	168.9	0.2	0.0			0.0	168.9	287.2	3.5	14.6	18.1	93.6
JUN	43.6	6.4	0.1	50.1	19.4	8.8	0.2	9.0	59.1	184.7	170.1	0.2	0.0			0.0	170.1	457.3	8.1	22.0	30.1	123.7
JUL	16.5	1.6	0.1	18.2	15.5	-3.9	0.1	-3.8	14.4	199.1	43.2	0.2	0.0	-1.3	0.3	-1.0	42.2	499.5	4.7	15.6	20.3	144.0
AUG	10.2	1.3	0.1	11.6	11.8	-3.7	0.0	-3.7	7.9	207.0	30.8	0.2	0.0			0.0	30.8	530.3	3.7	10.3	14.0	158.0
SEPT	6.9	0.7	0.0	7.6	9.1	-2.7	0.0	-2.7	4.9	211.9	28.3	0.2	0.0			0.0	28.3	558.6	1.3	5.9	7.2	165.2
OCT	5.8	1.1	0.1	7.0	9.0	-0.1	0.1	0.0	7.0	218.9	46.0	0.2	0.0			0.0	46.0	604.6	2.3	16.2	18.5	183.7
NOV	4.7	-----	-----	4.7	8.1	-0.9	0.0	-0.9	3.8	222.7	20.4	0.2	0.0			0.0	20.4	625.0	4.1	22.7	26.8	210.5
DEC	3.4	-----	-----	3.4	7.5	-0.6	0.0	-0.6	2.8	225.5	12.8	0.2	0.0			0.0	12.8	637.8	3.6	16.0	19.6	230.1
YEAR	172.5	46.1	5.2	223.8	-----	1.2	0.5	1.7	225.5	-----	638.8	-----	0.0	-1.3	0.3	-1.0	637.8	-----	47.5	182.6	230.1	-----

SUMMARY OF DEBITS AND CREDITS				
ITEM	DEBIT	CREDIT	BALANCE	
C1	Balance at Beginning of Year	-----	-----	Cr. 5.3
C2	Scheduled Delivery from Conejos River	60.3	-----	Dr. 55.0
C3	Scheduled Delivery from Rio Grande	177.1	-----	Dr. 232.1
C4	Actual Delivery at Lobatos plus 10,000 Acre Feet	-----	240.1	Cr. 8.0
C5	Reduction of Debits o/c Evaporation	-----		
C6	Reduction of Credits o/c Evaporation ^c	1.2	-----	Cr. 6.8
C7				
C8	Balance at End of Year	-----	-----	Cr. 6.8

Remarks: Cols. 6 and 13 do not include transmountain water.
^a Evaporation loss post-compact reservoirs; report of the Engineer Adviser for Colorado.
^b 1,586 ac-ft minus 243 ac-ft pre-compact; report of the Engineer Adviser for Colorado.
^c Reduction of Credit for Evaporation calculated on a monthly basis.
^d Note: Storage of relinquishment credit accrued in Platoro Reservoir during 2014. Storage of relinquished credit to date has totaled 1,749 acre-feet; balance remaining is 1,251 acre-feet.
^e See Engineer Adviser report in regards to change of storage.

APPROVED: _____ Date: _____ Engineer Adviser for Colorado
 _____ Date: _____ Engineer Adviser for New Mexico
 _____ Date: _____ Engineer Adviser for Texas
 _____ Date: _____

Method 1: Reduce Credit Water for Evaporation Monthly during the 2014 Calendar Year - Developed by Texas and Reclamation
RIO GRANDE COMPACT - DELIVERIES BY NEW MEXICO AT ELEPHANT BUTTE
YEAR 2014 - Method 1

Quantities in thousands of acre feet to nearest hundred

MONTH	OTOWI INDEX SUPPLY								Total Water Stored in New Mexico Above San Marcial at End of Month ^{a, b}	ELEPHANT BUTTE EFFECTIVE SUPPLY					
	Recorded Flow at Otowi Bridge	ADJUSTMENTS						INDEX SUPPLY		STORAGE IN ELEPHANT BUTTE RESERVOIR		Effective Supply			
		RESERVOIRS: LOBATOS TO OTOWI			Other Adjustments ^d	Trans-mountain Diversions	Net Adjustments	During Month		Accumulated Total	End of Month ^a	Change Gain (+) Loss (-)	Recorded Flow Below Elephant Butte Dam	During Month	Accumulated Total
		Storage End of Month ^{a, b}	Change in Storage	Reservoir Evaporation											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	-----	0.1	-----	-----	-----	-----	-----	-----	-----	-0.1	261.6	-----	-----	-----	-----
JAN	38.1	3.4	3.3	0.0		-3.9	-0.6	37.5	37.5	3.8	294.9	33.3	0.0	33.3	33.3
FEB	37.8	7.5	4.1	0.1		-3.2	1.0	38.8	76.3	7.4	323.3	28.4	0.0	28.4	61.7
MAR	48.4	13.5	6.0	0.1		-3.2	2.9	51.3	127.6	13.1	344.5	21.2	0.0	21.2	82.9
APR	57.4	34.5	21.0	0.1		-7.7	13.4	70.8	198.4	35.8	346.7	2.2	0.0	2.2	85.1
MAY	91.5	48.2	13.7	0.3		-16.3	-2.3	89.2	287.6	49.1	337.9	-8.8	19.8	11.0	96.1
JUN	80.7	48.1	-0.1	0.4		-17.6	-17.3	63.4	351.0	48.0	201.4	-136.5	148.0	11.5	107.6
JUL	67.5	45.5	-2.6	0.3		-11.4	-13.7	53.8	404.8	48.2	109.7	-91.7	110.1	18.4	126.0
AUG	55.5	33.7	-11.8	0.1		-6.1	-17.8	37.7	442.5	34.1	130.1	20.4	14.9	35.3	161.3
SEPT	44.9	21.6	-12.1	0.1		-11.8	-23.8	21.1	463.6	21.9	148.4	18.3	0.4	18.7	180.0
OCT	39.6	19.8	-1.8	0.1		-4.5	-6.2	33.4	497.0	20.1	160.0	11.6	0.0	11.6	191.6
NOV	45.9	7.5	-12.3	0.1	11.4	-2.3	-3.1	42.8	539.8	6.9	200.5	40.5	0.1	40.6	232.2
DEC	48.0	2.1	-5.4	0.1		-2.8	-8.1	39.9	579.7	1.4	252.8	52.3	0.1	52.4	284.6
YEAR	655.3	-----	2.0	1.8		-90.8	-75.6	579.7	-----	-----	-----	-8.8	293.4	284.6	-----

Remarks:
a Cols. 3, 11, and 12 do not include transmountain water.
b Note: In 2014, 32,351 acre-feet of relinquishment credit under previous relinquishment agreements were stored in El Vado Reservoir. Storage of relinquished credit to date has totaled 255,621 acre-feet; balance remaining is 124,879 acre-feet.
c Reduction of Credit for Evaporation calculated on a monthly basis.
d Adjustment for San Juan Chama exchange operation on November 24, 2014 to account for native water that would have passed the Otowi gage had the exchange not occurred (ISC File Memo, 2/18/15).

SUMMARY OF DEBITS AND CREDITS				
ITEM	DEBIT	CREDIT	BALANCE	
NM1			-----	Cr. 77.7
NM2	333.0	-----		Dr. 255.3
NM3		284.6		Cr 36.0
NM4		-----		
NM5	17.5	-----		Cr 11.8
NM6		-----		
NM7				
NM8			-----	Cr. 11.8

APPROVED: _____ Date: _____ Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 1: Reduce Credit Water for Evaporation Monthly during the 2014 Calendar Year - Developed by Texas and Reclamation

**RIO GRANDE COMPACT - RELEASE AND SPILL FROM PROJECT STORAGE
YEAR 2014 - Method 1**

Quantities in thousands of acre feet to nearest hundred

MONTH	a Total Project Storage Capacity Available at End of Month	USABLE WATER IN STORAGE			Unfilled Capacity of Project Storage at End of Month	CREDIT WATER IN STORAGE			Flood Water in Storage in Caballo Reservoir at End of Month	Total Water in Project Storage at End of Month	RIO GRANDE BELOW CABALLO DAM							
		Elephant Butte Reservoir	Caballo Reservoir	Total at End of Month		c Colorado Credit Water	c New Mexico Credit Water	Total at End of Month			Measured Flow at Caballo Gaging Station	Intervening Diversions to Canals	Total Release and Spill	SPILL FROM STORAGE			USABLE RELEASE	
														Caballo Flood Water	Credit Water	Usable Water	Net During Month	Accumulated Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1,999.6	^b 240.6	39.7	^b 280.3	1,719.3	^b 5.3	^b 77.7	^b 82.3		301.3	-----	-----	-----	-----	-----	-----	-----	0.0
JAN	1,999.6	212.6	40.2	252.8	1,746.8	5.3	77.0	82.3		335.1	0.1	0.0	0.1				0.1	0.1
FEB	1,999.6	242.0	40.5	282.5	1,717.1	5.2	76.1	81.3		363.8	0.0	0.1	0.1				0.1	0.2
MAR	1,999.6	264.6	39.9	304.5	1,695.1	5.1	74.8	79.9		384.4	0.0	0.1	0.1				0.1	0.3
APR	1,974.6	268.7	38.7	307.4	1,667.2	5.0	73.0	78.0		385.4	0.1	0.2	0.3				0.3	0.6
MAY	1,974.6	261.9	26.8	288.7	1,685.9	4.9	71.1	76.0		364.7	27.9	0.2	28.1				28.1	28.7
JUN	1,974.6	129.5	30.6	160.1	1,814.5	4.6	67.3	71.9		232.0	136.9	0.2	137.1				137.1	165.8
JUL	1,974.6	40.9	31.6	72.5	1,902.1	4.4	64.4	68.8		141.3	110.8	0.2	111.0				111.0	276.8
AUG	1,974.6	62.8	22.3	85.1	1,889.5	4.3	63.0	67.3		152.4	29.4	0.0	29.4				29.4	306.2
SEPT	1,974.6	82.0	31.1	113.1	1,861.5	4.2	62.2	66.4		179.5	0.3	0.0	0.3				0.3	306.5
OCT	1,999.6	94.6	31.2	125.8	1,873.8	4.2	61.2	65.4		191.2	0.2	0.1	0.3				0.3	306.8
NOV	1,999.6	135.8	31.7	167.5	1,832.1	4.1	60.6	64.7		232.2	0.1	0.0	0.1				0.1	306.9
DEC	1,999.6	188.5	32.4	220.9	1,778.7	4.1	60.2	64.3		285.2	0.0	0.0	-				0.0	306.9
YEAR	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	305.8	1.1	306.9	0.0	0.0	0.0	306.9	-----

Remarks: Cols. 2, 6 and 11 reflect implementation of revised area-capacity tables from Elephant Butte and Caballo Reservoirs, effective Jan 1, 2009

^a Project Storage Capacity is 1,974,600 acre-feet (April to September) and 1,999,600 acre-feet (October to March) as adopted by the Rio Grande Compact Commission on March 31, 2009 with flood control storage reservation at Elephant Butte Reservoir of 50,000 acre-feet from April through September and 25,000 acre-feet from October through March.

^b Based on Balance at Beginning of Year (C1 and NM1).

^c Calculated on a monthly basis.

ACCRUED DEPARTURE FROM NORMAL RELEASE

ITEM	DEBIT	CREDIT	BALANCE
P1	-----	-----	Cr.1565.8
P2	306.9	-----	Cr. 1258.9
P3	-----	790.0	Cr. 2048.9
P4	333.1	-----	
P5	-----		
P6			
P7	-----	-----	Cr.1715.8

TIME OF HYPOTHETICAL SPILL Did not occur

APPROVED:

Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 2: Reduce Credit Water for Evaporation at the End of the 2014 Calendar Year - Developed by Colorado and New Mexico

RIO GRANDE COMPACT - DELIVERIES BY COLORADO AT STATE LINE
YEAR 2014 - Method 2

Quantities in thousands of acre feet to nearest hundred

MONTH	CONEJOS INDEX SUPPLY										RIO GRANDE INDEX SUPPLY								DELIVERIES			
	MEASURED FLOW				ADJUSTMENTS				SUPPLY		RECORDED FLOW NEAR DEL NORTE	ADJUSTMENTS					SUPPLY		CONEJOS RIVER AT MOUTH NEAR LASAUCES	RIO GRANDE LESS CONEJOS RIVER	RIO GRANDE AT LOBATOS	ACCUMULATED TOTAL AT LOBATOS
	CONEJOS AT MOGOTE	LOS PINOS NEAR ORTIZ	SAN ANTONIO AT ORTIZ	TOTAL	STORAGE AT END OF MONTH ^d	CHANGE IN STORAGE ^e	OTHER ADJUSTMENTS	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL		STORAGE AT END OF MONTH	CHANGE IN STORAGE	TRANSMOUNTAIN DIVERSIONS ^b	OTHER ADJUSTMENTS ^a	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	-----	-----	-----	-----	6.3	-----	-----	-----	-----	0.0	-----	0.2	-----	-----	-----	-----	-----	0.0	-----	-----	-----	0.0
JAN	2.4	-----	-----	2.4	6.5	0.2		0.2	2.6	2.6	11.8	0.2	0.0			0.0	11.8	11.8	3.2	12.7	15.9	15.9
FEB	2.5	-----	-----	2.5	6.7	0.2		0.2	2.7	5.3	12	0.2	0.0			0.0	12.0	23.8	4.2	14.6	18.8	34.7
MAR	4.4	-----	-----	4.4	7.1	0.4		0.4	4.8	10.1	17.2	0.2	0.0			0.0	17.2	41.0	6.6	22.3	28.9	63.6
APR	20.9	14.6	3.3	38.8	6.9	-0.2		-0.2	38.6	48.7	77.3	0.2	0.0			0.0	77.3	118.3	2.2	9.7	11.9	75.5
MAY	51.2	20.4	1.5	73.1	10.6	3.7	0.1	3.8	76.9	125.6	168.9	0.2	0.0			0.0	168.9	287.2	3.5	14.6	18.1	93.6
JUN	43.6	6.4	0.1	50.1	19.4	8.8	0.2	9.0	59.1	184.7	170.1	0.2	0.0			0.0	170.1	457.3	8.1	22.0	30.1	123.7
JUL	16.5	1.6	0.1	18.2	15.5	-3.9	0.1	-3.8	14.4	199.1	43.2	0.2	0.0	-1.3	0.3	-1.0	42.2	499.5	4.7	15.6	20.3	144.0
AUG	10.2	1.3	0.1	11.6	11.8	-3.7	0.0	-3.7	7.9	207.0	30.8	0.2	0.0			0.0	30.8	530.3	3.7	10.3	14.0	158.0
SEPT	6.9	0.7	0.0	7.6	9.1	-2.7	0	-2.7	4.9	211.9	28.3	0.2	0.0			0.0	28.3	558.6	1.3	5.9	7.2	165.2
OCT	5.8	1.1	0.1	7.0	9.0	-0.1	0.1	0.0	7.0	218.9	46.0	0.2	0.0			0.0	46.0	604.6	2.3	16.2	18.5	183.7
NOV	4.7		-----	4.7	8.1	-0.9	0.0	-0.9	3.8	222.7	20.4	0.2	0.0			0.0	20.4	625.0	4.1	22.7	26.8	210.5
DEC	3.4	-----	-----	3.4	7.5	-0.6		-0.6	2.8	225.5	12.8	0.2	0.0			0.0	12.8	637.8	3.6	16.0	19.6	230.1
YEAR	172.5	46.1	5.2	223.8	-----	1.2	0.5	1.7	225.5	-----	638.8	-----	0.0	-1.3	0.3	-1.0	637.8	-----	47.5	182.6	230.1	-----

SUMMARY OF DEBITS AND CREDITS				
ITEM	DEBIT	CREDIT	BALANCE	
C1	Balance at Beginning of Year	-----	-----	Cr. 5.1
C2	Scheduled Delivery from Conejos River	60.3	-----	Dr. 55.2
C3	Scheduled Delivery from Rio Grande	177.1	-----	Dr. 232.3
C4	Actual Delivery at Lobatos plus 10,000 Acre Feet	-----	240.1	Cr. 7.8
C5	Reduction of Debits o/c Evaporation	-----		
C6	Reduction of Credits o/c Evaporation ^c	1.1	-----	Cr. 6.7
C7				
C8	Balance at End of Year	-----	-----	Cr. 6.7

Remarks: Cols. 6 and 13 do not include transmountain water.			
^a Evaporation loss post-compact reservoirs; report of the Engineer Adviser for Colorado.			
^b 1,586 ac-ft minus 243 ac-ft pre-compact; report of the Engineer Adviser for Colorado.			
^c Evaporation of credit water accounted as described in Article VI of the Rio Grande Compact.			
^d Note: Storage of relinquishment credit accrued in Platoro Reservoir during 2014. Storage of relinquished credit to date has totaled 1,749 acre-feet; balance remaining is 1,251 acre-feet.			
^e See Engineer Adviser report in regards to change of storage.			

APPROVED:

Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 2: Reduce Credit Water for Evaporation at the End of the 2014 Calendar Year - Developed by Colorado and New Mexico
RIO GRANDE COMPACT - DELIVERIES BY NEW MEXICO AT ELEPHANT BUTTE
YEAR 2014 - Method 2

Quantities in thousands of acre feet to nearest hundred

MONTH	OTOWI INDEX SUPPLY									Total Water Stored in New Mexico Above San Marcial at End of Month ^{a, b}	ELEPHANT BUTTE EFFECTIVE SUPPLY				
	Recorded Flow at Otowi Bridge	ADJUSTMENTS						INDEX SUPPLY			STORAGE IN ELEPHANT BUTTE RESERVOIR		Effective Supply		
		RESERVOIRS: LOBATOS TO OTOWI			Other Adjustments ^d	Trans-mountain Diversions	Net Adjustments	During Month	Accumulated Total		End of Month ^a	Change Gain (+) Loss (-)	Recorded Flow Below Elephant Butte Dam	During Month	Accumulated Total
		Storage End of Month ^{a, b}	Change in Storage	Reservoir Evaporation											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	-----	0.1	-----	-----	-----	-----	-----	-----	-----	-0.1	261.6	-----	-----	-----	-----
JAN	38.1	3.4	3.3	0.0		-3.9	-0.6	37.5	37.5	3.8	294.9	33.3	0.0	33.3	33.3
FEB	37.8	7.5	4.1	0.1		-3.2	1.0	38.8	76.3	7.4	323.3	28.4	0.0	28.4	61.7
MAR	48.4	13.5	6.0	0.1		-3.2	2.9	51.3	127.6	13.1	344.5	21.2	0.0	21.2	82.9
APR	57.4	34.5	21.0	0.1		-7.7	13.4	70.8	198.4	35.8	346.7	2.2	0.0	2.2	85.1
MAY	91.5	48.2	13.7	0.3		-16.3	-2.3	89.2	287.6	49.1	337.9	-8.8	19.8	11.0	96.1
JUN	80.7	48.1	-0.1	0.4		-17.6	-17.3	63.4	351.0	48.0	201.4	-136.5	148.0	11.5	107.6
JUL	67.5	45.5	-2.6	0.3		-11.4	-13.7	53.8	404.8	48.2	109.7	-91.7	110.1	18.4	126.0
AUG	55.5	33.7	-11.8	0.1		-6.1	-17.8	37.7	442.5	34.1	130.1	20.4	14.9	35.3	161.3
SEPT	44.9	21.6	-12.1	0.1		-11.8	-23.8	21.1	463.6	21.9	148.4	18.3	0.4	18.7	180.0
OCT	39.6	19.8	-1.8	0.1		-4.5	-6.2	33.4	497.0	20.1	160.0	11.6	0.0	11.6	191.6
NOV	45.9	7.5	-12.3	0.1	11.4	-2.3	-3.1	42.8	539.8	6.9	200.5	40.5	0.1	40.6	232.2
DEC	48.0	2.1	-5.4	0.1		-2.8	-8.1	39.9	579.7	1.4	252.8	52.3	0.1	52.4	284.6
YEAR	655.3	-----	2.0	1.8		-90.8	-75.6	579.7	-----	-----	-----	-8.8	293.4	284.6	-----

Remarks:
^a Cols. 3, 11, and 12 do not include transmountain water.
^b Note: In 2014, 32,351 acre-feet of relinquishment credit under previous relinquishment agreements were stored in El Vado Reservoir. Storage of relinquished credit to date has totaled 255,621 acre-feet; balance remaining is 124,879 acre-feet.
^c Evaporation of credit water accounted as described in Article VI of the Rio Grande Compact.
^d Adjustment for San Juan Chama exchange operation in November 24th 2014 to account for native water that would have passed the Otowi gage had the exchange not occurred (ISC File Memo, 2/18/15).

SUMMARY OF DEBITS AND CREDITS				
	ITEM	DEBIT	CREDIT	BALANCE
NM1	Balance at Beginning of Year	-----	-----	Cr. 62.4
NM2	Scheduled Delivery at Elephant Butte	333.0	-----	Dr. 270.6
NM3	Actual Elephant Butte Effective Supply	-----	284.6	Cr. 14.0
NM4	Reduction of Debits o/c Evaporation	-----		
NM5	Reduction of Credits o/c Evaporation and Spill ^c	14.0	-----	0
NM6			-----	
NM7				
NM8	Balance at End of Year	-----	-----	0

APPROVED:
 Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 2: Reduce Credit Water for Evaporation at the End of the 2014 Calendar Year - Developed by Colorado and New Mexico
RIO GRANDE COMPACT - RELEASE AND SPILL FROM PROJECT STORAGE
YEAR 2014 - Method 2

Quantities in thousands of acre feet to nearest hundred

MONTH	Total Project Storage Capacity Available at End of Month a	USABLE WATER IN STORAGE			Unfilled Capacity of Project Storage at End of Month	CREDIT WATER IN STORAGE			Flood Water in Storage in Caballo Reservoir at End of Month	Total Water in Project Storage at End of Month	Rio Grande below Caballo Dam							
		Elephant Butte Reservoir	Caballo Reservoir	Total at End of Month		c Colorado Credit Water	c New Mexico Credit Water	Total at End of Month			Measured Flow at Caballo Gaging Station	Intervening Diversions to Canals	Total Release and Spill	SPILL FROM STORAGE			USABLE RELEASE	
														Caballo Flood Water	Credit Water	Usable Water	Net During Month	Accumulated Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1,999.6	194.1	39.7	233.8	1,765.8	^b 5.1	^b 62.4	67.5		301.3	-----	-----	-----	-----	-----	-----	-----	0.0
JAN	1,999.6	227.4	40.2	267.6	1,732.0	5.1	62.4	67.5		335.1	0.1	0.0	0.1				0.1	0.1
FEB	1,999.6	255.8	40.5	296.3	1,703.3	5.1	62.4	67.5		363.8	0.0	0.1	0.1				0.1	0.2
MAR	1,999.6	277.0	39.9	316.9	1,682.7	5.1	62.4	67.5		384.4	0.0	0.1	0.1				0.1	0.3
APR	1,974.6	279.2	38.7	317.9	1,656.7	5.1	62.4	67.5		385.4	0.1	0.2	0.3				0.3	0.6
MAY	1,974.6	270.4	26.8	297.2	1,677.4	5.1	62.4	67.5		364.7	27.9	0.2	28.1				28.1	28.7
JUN	1,974.6	133.9	30.6	164.5	1,810.1	5.1	62.4	67.5		232.0	136.9	0.2	137.1				137.1	165.8
JUL	1,974.6	42.2	31.6	73.8	1,900.8	5.1	62.4	67.5		141.3	110.8	0.2	111.0				111.0	276.8
AUG	1,974.6	62.6	22.3	84.9	1,889.7	5.1	62.4	67.5		152.4	29.4	0.0	29.4				29.4	306.2
SEPT	1,974.6	80.9	31.1	112.0	1,862.6	5.1	62.4	67.5		179.5	0.3	0.0	0.3				0.3	306.5
OCT	1,999.6	92.5	31.2	123.7	1,875.9	5.1	62.4	67.5		191.2	0.2	0.1	0.3				0.3	306.8
NOV	1,999.6	133.0	31.7	164.7	1,834.9	5.1	62.4	67.5		232.2	0.1	0.0	0.1				0.1	306.9
DEC	1,999.6	185.3	32.4	217.7	1,781.9	5.1	62.4	67.5		285.2	0.0	0.0	-				0.0	306.9
YEAR	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	305.8	1.1	306.9	0.0	0.0	0.0	306.9	-----

Remarks: Cols. 2, 6 and 11 reflect implementation of revised area-capacity tables from Elephant Butte and Caballo Reservoirs, effective Jan 1, 2009
^a Project Storage Capacity is 1,974,600 acre-feet (April to September) and 1,999,600 acre-feet (October to March) as adopted by the Rio Grande Compact Commission on March 31, 2009 with flood control storage reservation at Elephant Butte Reservoir of 50,000 acre-feet from April through September and 25,000 acre-feet from October through March.
^b Based on Balance at Beginning of Year (C1 and NM1).
^c Credit water held constant during the year in accordance with Article VI and per direction of Compact Commission in March 2006. Evaporation for credit water is accounted at end of calendar year in the proportion that the Credit Water bore to the total amount of water in Elephant Butte Reservoir during the year. If loan had been approved, Credit Water would have been decreased by the amount of the negative usable water.
^d Due to Caballo release discrepancies during 2011, data was not approved for 2011; consequently, the accrued departure at the beginning of 2012, 2013 and 2014 could not be computed.

ACCRUED DEPARTURE FROM NORMAL RELEASE		DEBIT	CREDIT	BALANCE
ITEM		-----	-----	Cr.
P1	Accrued Departure at Beginning of Year ^d	306.9	-----	Cr.
P2	Actual Release during Year	-----	790	Cr.
P3	Normal Release for Year	-----	-----	Cr.
P4		-----		
P5				
P6		-----	-----	Cr.
P7	Accrued Departure at End of Year			
TIME OF HYPOTHETICAL SPILL <u>Did not occur</u>				

APPROVED:
 Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 3: Reduce Credit Water for Evaporation at the End of the Calendar Year with Unauthorized Release of Credit Water Replaced by Late Season Inflow - Developed by Colorado
RIO GRANDE COMPACT - DELIVERIES BY COLORADO AT STATE LINE
YEAR 2014 - Method 3

Quantities in thousands of acre feet to nearest hundred

MONTH	CONEJOS INDEX SUPPLY										RIO GRANDE INDEX SUPPLY							DELIVERIES				
	MEASURED FLOW				ADJUSTMENTS				SUPPLY		RECORDED FLOW NEAR DEL NORTE	ADJUSTMENTS					SUPPLY		CONEJOS RIVER AT MOUTH NEAR LASAUCES	RIO GRANDE LESS CONEJOS RIVER	RIO GRANDE AT LOBATOS	ACCUMULATED TOTAL AT LOBATOS
	CONEJOS AT MOGOTE	LOS PINOS NEAR ORTIZ	SAN ANTONIO AT ORTIZ	TOTAL	STORAGE AT END OF MONTH ^d	CHANGE IN STORAGE ^e	OTHER ADJUSTMENTS	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL		STORAGE AT END OF MONTH	CHANGE IN STORAGE	TRANSMOUNTAIN DIVERSIONS ^b	OTHER ADJUSTMENTS ^a	NET ADJUSTMENTS	SUPPLY IN MONTH	ACCUMULATED TOTAL				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	-----	-----	-----	-----	6.3	-----	-----	-----	-----	0.0	-----	0.2	-----	-----	-----	-----	-----	0.0	-----	-----	-----	0.0
JAN	2.4	-----	-----	2.4	6.5	0.2	-----	0.2	2.6	2.6	11.8	0.2	0.0	-----	-----	0.0	11.8	11.8	3.2	12.6	15.8	15.8
FEB	2.5	-----	-----	2.5	6.7	0.2	-----	0.2	2.7	5.3	12	0.2	0.0	-----	-----	0.0	12.0	23.8	4.2	14.6	18.8	34.6
MAR	4.4	-----	-----	4.4	7.1	0.4	-----	0.4	4.8	10.1	17.2	0.2	0.0	-----	-----	0.0	17.2	41.0	6.6	22.3	28.9	63.5
APR	20.9	14.6	3.3	38.8	6.9	-0.2	-----	-0.2	38.6	48.7	77.3	0.2	0.0	-----	-----	0.0	77.3	118.3	2.2	9.7	11.9	75.4
MAY	51.2	20.4	1.5	73.1	10.6	3.7	0.1	3.8	76.9	125.6	168.9	0.2	0.0	-----	-----	0.0	168.9	287.2	3.5	14.6	18.1	93.5
JUN	43.6	6.4	0.1	50.1	19.4	8.8	0.2	9.0	59.1	184.7	170.1	0.2	0.0	-----	-----	0.0	170.1	457.3	8.1	22.0	30.1	123.6
JUL	16.5	1.6	0.1	18.2	15.5	-3.9	0.1	-3.8	14.4	199.1	43.2	0.2	0.0	-1.3	0.3	-1.0	42.2	499.5	4.7	15.6	20.3	143.9
AUG	10.2	1.3	0.1	11.6	11.8	-3.7	0.0	-3.7	7.9	207.0	30.9	0.2	0.0	-----	-----	0.0	30.9	530.4	3.7	10.3	14.0	157.9
SEPT	6.9	0.7	0.0	7.6	9.1	-2.7	0	-2.7	4.9	211.9	28.3	0.2	0.0	-----	-----	0.0	28.3	558.7	1.3	5.9	7.2	165.1
OCT	5.8	1.1	0.1	7.0	9.0	-0.1	0.1	0.0	7.0	218.9	46.0	0.2	0.0	-----	-----	0.0	46.0	604.7	2.3	16.2	18.5	183.6
NOV	4.7	-----	-----	4.7	8.1	-0.9	0.0	-0.9	3.8	222.7	20.3	0.2	0.0	-----	-----	0.0	20.3	625.0	4.1	22.8	26.9	210.5
DEC	3.4	-----	-----	3.4	7.5	-0.6	-----	-0.6	2.8	225.5	12.8	0.2	0.0	-----	-----	0.0	12.8	637.8	3.6	16.0	19.6	230.1
YEAR	172.5	46.1	5.2	223.8	-----	1.2	0.5	1.7	225.5	-----	638.8	-----	0.0	-1.3	0.3	-1.0	637.8	-----	47.5	182.6	230.1	-----

Remarks: Cols. 6 and 13 do not include transmountain water. ^a Evaporation loss post-compact reservoirs; report of the Engineer Adviser for Colorado. ^b 1,586 ac-ft minus 243 ac-ft pre-compact; report of the Engineer Adviser for Colorado. ^c Evaporation of Credit Water computed according to Article VI of the Rio Grande Compact using the Annual Method applied by the Rio Grande Compact Commission for the 1951 Loan of Credit ^d Note: Storage of relinquishment credit accrued in Platoro Reservoir during 2014. Storage of relinquished credit to date has totaled 1,749 acre-feet; balance remaining is 1,251 acre-feet. ^e See Engineer Adviser report in regards to change of storage.				SUMMARY OF DEBITS AND CREDITS			
	ITEM	DEBIT	CREDIT	BALANCE			
C1	Balance at Beginning of Year	-----	-----	Cr. 5.4			
C2	Scheduled Delivery from Conejos River	60.3	-----	Dr. 54.9			
C3	Scheduled Delivery from Rio Grande	177.1	-----	Dr. 232			
C4	Actual Delivery at Lobatos plus 10,000 Acre Feet	-----	240.1	Cr. 8.1			
C5	Reduction of Debits o/c Evaporation	-----	-----				
C6	Reduction of Credits o/c Evaporation ^c	1.2	-----	Cr. 6.9			
C7							
C8	Balance at End of Year	-----	-----	Cr. 6.9			

APPROVED: _____
 Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 3: Reduce Credit Water for Evaporation at the End of the Calendar Year with Unauthorized Release of Credit Water Replaced by Late Season Inflow - Developed by Colorado
RIO GRANDE COMPACT - DELIVERIES BY NEW MEXICO AT ELEPHANT BUTTE
YEAR 2014 - Method 3

Quantities in thousands of acre feet to nearest hundred

MONTH	OTOWI INDEX SUPPLY								Total Water Stored in New Mexico Above San Marcial at End of Month ^{a, b}	ELEPHANT BUTTE EFFECTIVE SUPPLY					
	Recorded Flow at Otowi Bridge	ADJUSTMENTS					INDEX SUPPLY			STORAGE IN ELEPHANT BUTTE RESERVOIR		Effective Supply			
		RESERVOIRS: LOBATOS TO OTOWI					During Month	Accumulated Total		End of Month ^a	Change Gain (+) Loss (-)	Recorded Flow Below Elephant Butte Dam	During Month	Accumulated Total	
		Storage End of Month ^{a, b}	Change in Storage	Reservoir Evaporation	Other Adjustments ^d	Trans-mountain Diversions									Net Adjustments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	-----	0.1	-----	-----	-----	-----	-----	-----	-----	-0.1	261.6	-----	-----	-----	-----
JAN	38.1	3.4	3.3	0.0		-3.9	-0.6	37.5	37.5	3.8	294.9	33.3	0.0	33.3	33.3
FEB	37.8	7.5	4.1	0.1		-3.2	1.0	38.8	76.3	7.4	323.3	28.4	0.0	28.4	61.7
MAR	48.4	13.5	6.0	0.1		-3.2	2.9	51.3	127.6	13.1	344.5	21.2	0.0	21.2	82.9
APR	57.4	34.5	21.0	0.1		-7.7	13.4	70.8	198.4	35.8	346.7	2.2	0.0	2.2	85.1
MAY	91.5	48.2	13.7	0.3		-16.3	-2.3	89.2	287.6	49.1	337.9	-8.8	19.8	11.0	96.1
JUN	80.7	48.1	-0.1	0.4		-17.6	-17.3	63.4	351.0	48.0	201.4	-136.5	148.0	11.5	107.6
JUL	67.5	45.5	-2.6	0.3		-11.4	-13.7	53.8	404.8	48.2	109.7	-91.7	110.1	18.4	126.0
AUG	55.5	33.7	-11.8	0.1		-6.1	-17.8	37.7	442.5	34.1	130.1	20.4	14.9	35.3	161.3
SEPT	44.9	21.6	-12.1	0.1		-11.8	-23.8	21.1	463.6	21.9	148.4	18.3	0.4	18.7	180.0
OCT	39.6	19.8	-1.8	0.1		-4.5	-6.2	33.4	497.0	20.1	160.0	11.6	0.0	11.6	191.6
NOV	45.9	7.5	-12.3	0.1	11.4	-2.3	-3.1	42.8	539.8	6.9	200.5	40.5	0.1	40.6	232.2
DEC	48.0	2.0	-5.4	0.1		-2.8	-8.1	39.9	579.7	1.4	252.8	52.3	0.1	52.4	284.6
YEAR	655.3	-----	2.0	1.8		-90.8	-75.6	579.7	-----	-----	-----	-8.8	293.4	284.6	-----

Remarks:
^a Cols. 3, 11, and 12 do not include transmountain water.
^b Note: In 2014 32,351 acre-feet of relinquishment credit under previous relinquishment agreements were stored in El Vado Reservoir. Storage of relinquished credit to date has totaled 255,621 acre-feet; balance remaining is 124,879 acre-feet.
^c Evaporation of Credit Water computed according to Article VI of the Rio Grande Compact using the Annual Method applied by the Rio Grande Compact Commission for the 1951 Loan of Credit.
^d Adjustment for San Juan Chama exchange operation in November 24th 2014 to account for native water that would have passed the Otowi gage had the exchange not occurred (ISC File Memo, 2/18/15).

SUMMARY OF DEBITS AND CREDITS				
	ITEM	DEBIT	CREDIT	BALANCE
NM1	Balance at Beginning of Year	-----	-----	Cr. 78.6
NM2	Scheduled Delivery at Elephant Butte	333.0	-----	Dr. 254.4
NM3	Actual Elephant Butte Effective Supply	-----	284.6	Cr 30.2
NM4	Reduction of Debits o/c Evaporation	-----		
NM5	Reduction of Credits o/c Evaporation and Spill ^c	17.7	-----	Cr. 12.5
NM6				
NM7				
NM8	Balance at End of Year	-----	-----	Cr. 12.5

APPROVED: _____ Date: _____ Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

Method 3: Reduce Credit Water for Evaporation at the End of the Calendar Year with Unauthorized Release of Credit Water Replaced by Late Season Inflow - Developed by Colorado
RIO GRANDE COMPACT - RELEASE AND SPILL FROM PROJECT STORAGE
YEAR 2014 - Method 3

Quantities in thousands of acre feet to nearest hundred

MONTH	Total Project Storage Capacity Available at End of Month ^a	USABLE WATER IN STORAGE			Unfilled Capacity of Project Storage at End of Month	CREDIT WATER IN STORAGE			Flood Water in Storage in Caballo Reservoir at End of Month	Total Water in Project Storage at End of Month	Rio Grande below Caballo Dam							
		Elephant Butte Reservoir	Caballo Reservoir	Total at End of Month		^c Colorado Credit Water	^c New Mexico Credit Water	Total at End of Month			Measured Flow at Caballo Gaging Station	Intervening Diversions to Canals	Total Release and Spill	SPILL FROM STORAGE			USABLE RELEASE	
														Caballo Flood Water	Credit Water	Usable Water	Net During Month	Accumulated Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1,999.6	177.6	39.7	217.3	1,719.3	^b 5.4	^b 78.6	^b 84.0		301.3	-----	-----	-----	-----	-----	-----	-----	0.0
JAN	1,999.6	210.9	40.2	251.1	1,748.5	5.4	78.6	84.0		335.1	0.1	0.0	0.1				0.1	0.1
FEB	1,999.6	239.3	40.5	279.8	1,719.8	5.4	78.6	84.0		363.8	0.0	0.1	0.1				0.1	0.2
MAR	1,999.6	260.5	39.9	300.4	1,699.2	5.4	78.6	84.0		384.4	0.0	0.1	0.1				0.1	0.3
APR	1,974.6	262.7	38.7	301.4	1,673.2	5.4	78.6	84.0		385.4	0.1	0.2	0.3				0.3	0.6
MAY	1,974.6	253.9	26.8	280.7	1,693.9	5.4	78.6	84.0		364.7	27.9	0.2	28.1				28.1	28.7
JUN	1,974.6	117.4	30.6	148.0	1,826.6	5.4	78.6	84.0		232.0	136.9	0.2	137.1				137.1	165.8
JUL	1,974.6	25.7	31.6	57.3	1,917.3	5.4	78.6	84.0		141.3	110.8	0.2	111.0				111.0	276.8
AUG	1,974.6	46.1	22.3	68.4	1,906.2	5.4	78.6	84.0		152.4	29.4	0.0	29.4				29.4	306.2
SEPT	1,974.6	64.4	31.1	95.5	1,879.1	5.4	78.6	84.0		179.5	0.3	0.0	0.3				0.3	306.5
OCT	1,999.6	76.0	31.2	107.2	1,892.4	5.4	78.6	84.0		191.2	0.2	0.1	0.3				0.3	306.8
NOV	1,999.6	116.5	31.7	148.2	1,851.4	5.4	78.6	84.0		232.2	0.1	0.0	0.1				0.1	306.9
DEC	1,999.6	168.8	32.4	201.2	1,798.4	5.4	78.6	84.0		285.2	0.0	0.0	-				0.0	306.9
YEAR	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	305.8	1.1	306.9	0.0	0.0	0.0	306.9	-----

Remarks: Cols. 2, 6 and 11 reflect implementation of revised area-capacity tables from Elephant Butte and Caballo Reservoirs, effective Jan 1, 2009.

^a Project Storage Capacity is 1,974,600 acre-feet (April to September) and 1,999,600 acre-feet (October to March) as adopted by the Rio Grande Compact Commission on March 31, 2009 with flood control storage reservation at Elephant Butte Reservoir of 50,000 acre-feet from April through September and 25,000 acre-feet from October through March.

^b Based on Balance at Beginning of Year (C1 and NM1).

^c Credit water held constant during the year in accordance with Article VI and per direction of Compact Commission in March 2006. Evaporation for credit water is accounted at end of calendar year in the proportion that the Credit Water bore to the total amount of water in Elephant Butte Reservoir during the year.

^d Due to Caballo release discrepancies during 2011, data was not approved for 2011; consequently, the accrued departure at the beginning of 2012, 2013 and 2014

ACCRUED DEPARTURE FROM NORMAL RELEASE				
ITEM	DEBIT	CREDIT	BALANCE	
P1	-----	-----	Cr.	
P2	306.9	-----	Cr.	
P3	-----	790.0	Cr.	
P4	-----	-----	Cr.	
P5	-----			
P6				
P7	-----	-----	Cr.	
TIME OF HYPOTHETICAL SPILL <u>Did not occur</u>				

APPROVED: _____ Date: _____ Engineer Adviser for Colorado _____ Date: _____ Engineer Adviser for New Mexico _____ Date: _____ Engineer Adviser for Texas _____ Date: _____

BUDGET FOR FISCAL YEAR ENDING JUNE 30, 2014

Item	Total Cost	Borne by United States	Borne by		
			Colorado	New Mexico	Texas
GAGING STATIONS					
In Colorado ¹	\$70,938		\$70,938		
In New Mexico, above Caballo Reservoir	\$75,061	\$41,142		\$33,920	
In New Mexico, Caballo Reservoir and below	\$20,766	\$5,408		\$3,255	\$12,103
Subtotal	\$166,765	\$46,549	\$70,938	\$37,175	\$12,103
ADMINISTRATION					
USGS Technical Services	\$19,414	\$5,443	\$4,657	\$4,657	\$4,657
Other expenses ²	\$3,000		\$1,000	\$1,000	\$1,000
Subtotal	\$22,414	\$5,443	\$5,657	\$5,657	\$5,657
GRAND TOTAL	\$189,179	\$51,992	\$76,595	\$42,832	\$17,760
EQUAL SHARES			\$45,729	\$45,729	\$45,729

¹Includes \$4,305 to Colorado USGS for review and publication of Colorado Rio Grande Compact gage records

²Includes cost of court reporter and publication of Annual Report.

BUDGET FOR FISCAL YEAR ENDING JUNE 30, 2016

Item	Total Cost	Borne by United States	Borne by		
			Colorado	New Mexico	Texas
GAGING STATIONS					
In Colorado	\$75,345		\$75,345		
In New Mexico, above Caballo Reservoir	\$75,062	\$41,142		\$33,920	
In New Mexico, Caballo Reservoir and below	\$39,662	\$15,882		\$3,256	\$20,524
Subtotal	\$190,069	\$57,024	\$75,345	\$37,176	\$20,524
ADMINISTRATION					
U.S.G.S. Technical Services	\$19,414	\$5,884	\$4,510	\$4,510	\$4,510
Other expenses ¹	\$3,000		\$1,000	\$1,000	\$1,000
Subtotal	\$22,414	\$5,884	\$5,510	\$5,510	\$5,510
GRAND TOTAL	\$212,483	\$62,908	\$80,855	\$42,686	\$26,034
EQUAL SHARES			\$49,858	\$49,858	\$49,858

¹Includes cost of court reporter and publication of Annual Report.

Agreement No: 15CRNM000000012
 Customer No:
 6000001029/6000001775/6000000631
 Project No: RG209L7
 Tax ID: 84-0644739 (CO)
 85-6000565 (NM)
 74-1694284 (TX)
 Fixed-price agreement

**COOPERATIVE AGREEMENT
 FOR
 INVESTIGATION OF WATER RESOURCES**

THIS AGREEMENT, entered into this 1st day of July, 2015 by and between the United States Geological Survey, party of the first part, and each of the Commissioners representing the three signatory states and the Representative of the United States, constituting the Rio Grande Compact Commission, party of the second part.

In consideration of the mutual promises and agreements herein contained, it is agreed by and between the parties hereto as follows:

1. The parties agree that, subject to the availability of appropriations and in accordance with their respective authorities, there shall be maintained a cooperative program for duties as stated in the attached Statement of Work, for the Rio Grande Compact Commission within and among the three states in accordance with the terms of the Rio Grande Compact, incorporated herein by reference.

The parties further agree that this agreement shall in no manner affect any other agreement between the United States Geological Survey and any of the three states of the basin concerning the collection of hydrologic data, but in each case where there is or may be another agreement covering the collection of such data, the duty of the United States Geological Survey as provided here, shall be to compile, correlate, and present hydrographic data that has been collected under such agreements.

2. The parties agree to contribute to this program in the amounts specified or as are from time to time agreed upon in writing, funds needed and available to cover all the cost of the necessary field and office work directly related to the program, excluding any general administrative or accounting work in the office of any of the parties, and excluding the costs of publication by any of the parties of the results of the program.

3. The United States Geological Survey and state members of the Rio Grande Compact agree to contribute to the program during the period from July 1, 2015 to June 30, 2016, the following amounts:

(a)	U.S. Geological Survey	\$5,884
(b)	State of Colorado	\$4,510
(c)	State of New Mexico	\$4,510
(d)	State of Texas	\$4,510

4. So far as may be mutually agreed, all expenses shall be paid in the first instance by the United States Geological Survey with appropriate reimbursement thereafter by the other parties hereto. Each of the parties shall furnish to each of the other parties such statements or reports of expenditures as may be needed to satisfy fiscal requirements.

5. Unless previously terminated by the parties hereto, this agreement shall terminate on June 30, 2015, provided it may be renewed by the mutual agreement of the United States Geological Survey and each of the Commissioners representing the three signatory states to the Rio Grande Compact, as the voting members of the Rio Grande Compact Commission, on or before June 30, 2015, for a period of 1 year, and may be renewed in a like manner on or before June 30th of any year thereafter for a similar period. Any party may terminate this agreement by providing 60 day's written notice to the other party. When an accepted agreement is terminated by the State members of the Rio Grande Compact Commission, the USGS is authorized to collect costs incurred prior to the effective date of termination of the agreement plus any termination cost.


6. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other parties.

7. In the event this Agreement is renewed as herein provided, the amounts to be contributed by the parties for each renewal period may be determined by mutual agreement and set forth by exchange of letters between the parties at or near the beginning of each such period.

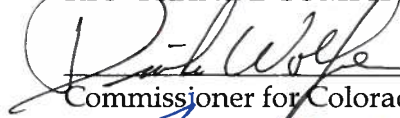
8. Billing for this agreement will be rendered semi-annually in January 2016 and July 2016. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30-day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717, Comptroller General File-B212222, August 23, 1983.)


9. The Legal authorities for the U.S. Geological Survey to enter into this Agreement are 43 USC 36C; 43 USC 50; and 43 USC50b.

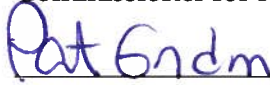
UNITED STATES GEOLOGICAL SURVEY


 3/24/15
 David Mau Date
 Director, New Mexico Water Science Center

RIO GRANDE COMPACT COMMISSION

 3/24/15
 Commissioner for Colorado Date

 3/24/15
 Commissioner for New Mexico Date

 3/24/15
 Commissioner for Texas Date

 3/24/15
 Representative of the United States Date

**Statement of Work
for
15CRNM00000012**

The duties of the United States Geological Survey are as follows:

1. Obtain data for yearly accounting from U.S. Geological Survey in New Mexico and Colorado as well as U.S. Bureau of Reclamation, Albuquerque and El Paso Offices, and Colorado Division of Water Resources.
2. Prepare and submit provisional water accounting reports on the deliveries of the Rio Grande water.
3. Compile Rio Grande Compact Commission water accounting from the data supplied by various agencies. Present annual accounting at the Engineer Advisor's Meeting. Obtain signature of Engineer Advisors on approved accounting sheets.

RESOLUTION
RIO GRANDE COMPACT COMMISSION

**REGARDING TEMPORARY MODIFICATION OF OPERATIONS AT EL VADO
RESERVOIR IN NEW MEXICO DURING APRIL, MAY, AND JUNE 2015**

March 24, 2015

WHEREAS, the states of Colorado, New Mexico, and Texas, in 1938, signed the Rio Grande Compact apportioning the waters of the Rio Grande above Fort Quitman, Texas; and

WHEREAS, the Rio Grande Compact was passed as Public Act No. 96 by the 76th Congress of the United States and approved by the President on May 31, 1939; and

WHEREAS, the agencies of the United States operate numerous reservoirs and other water-related facilities in the Rio Grande basin; and

WHEREAS, the U.S. Bureau of Reclamation (Reclamation) operates El Vado Reservoir on the Rio Chama, a major tributary to the Rio Grande in New Mexico; and

WHEREAS, El Vado Reservoir is a post -1929 reservoir and is required to be operated in compliance with the Rio Grande Compact; and

WHEREAS, storage of native Rio Grande water is prohibited in El Vado Reservoir under Article VII of the Rio Grande Compact when Usable Water in Rio Grande Project Storage is less than 400,000 acre-feet and relinquishment credit is not available; and

WHEREAS, Article VII of the Rio Grande Compact has been in effect since July of 2010 and is likely to remain in effect through the 2015 snowmelt runoff; and


WHEREAS, the spring runoff in the middle Rio Grande valley is expected to be below average this year as it has been for the past four years; and,

WHEREAS, the Engineer Advisers to the Rio Grande Compact Commission propose to coordinate with Reclamation and the Middle Rio Grande Conservancy District to modify operations at El Vado Reservoir to aid in creating a spawning flow for the benefit of the Rio Grande silvery minnow in the Middle Rio Grande in mid-May to early June 2015. Specifically, they propose to store, release, and/or refill up to 25,000 acre-feet of native water in El Vado Reservoir in April and May 2015 for release prior to June 15, 2015.

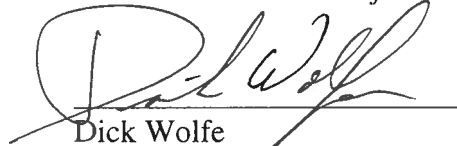
NOW, THEREFORE, BE IT RESOLVED that since New Mexico is not in an accrued debit under Article VI, the Rio Grande Compact Commission hereby advises and consents to the temporary modification of operations at El Vado Reservoir as described above during 2015 to aid in creating a spawning flow for the Rio Grande silvery minnow; provided, however, that the operations will not negatively affect the timing of Article VII (prevent Usable Water in Project Storage from rising above 400,000 acre-feet), and that all additional depletions resulting from the modified operations are offset; and

BE IT FURTHER RESOLVED that Reclamation, New Mexico, and the United States Fish and Wildlife Service (Service) must report the details of the operation to the Engineer Advisers prior to November 15, 2015 and the Rio Grande Compact Commission at its 77th annual meeting; and,


BE IT FURTHER RESOLVED that the New Mexico Engineer Adviser to the Rio Grande Compact Commission shall transmit copies of this resolution to the Albuquerque Area Office Manager of Reclamation, the Regional Director's of Reclamation, the New Mexico Ecological Services Field Office Supervisor of the Service, the Regional Director of the Service, and the Chairman of the Board of the Middle Rio Grande Conservancy District.




Hal Simpson
*Chairman and Commissioner
For the United States of America*



Dick Wolfe
Commissioner for Colorado



Tom Blaine
Commissioner for New Mexico



Patrick R. Gordon
Commissioner for Texas

RIO GRANDE COMPACT COMMISSION REPORT
RESOLUTION
RIO GRANDE COMPACT COMMISSION
Honoring Estevan R. Lopez

March 24, 2015

WHEREAS, Estevan R. Lopez served as the Director of the New Mexico Interstate Stream Commission from 2003 through 2014; and

WHEREAS, Estevan R. Lopez served as the New Mexico Engineer Adviser to the Rio Grande Compact Commission from 2004 through 2008; and

WHEREAS, Estevan R. Lopez worked tirelessly on many contentious New Mexico water resources issues, including protecting New Mexico's compact entitlements to the waters of the Rio Grande, and is regarded by all as a competent and knowledgeable professional whose judgment can be trusted and whose humor and calm manner aided in resolution of issues; and

WHEREAS, Estevan R. Lopez rendered long, meritorious service to the Rio Grande Compact Commission in matters related to the conservation, utilization and development of the water and related land resources of the Rio Grande Basin; and

WHEREAS, as a result of his professional conduct in addressing numerous matters regarding administration of the Rio Grande, his fellow Commissioners, their advisers and staff have developed great respect, admiration and appreciation for Estevan R. Lopez.

NOW, THEREFORE, BE IT RESOLVED, that the Rio Grande Compact Commission, at its 76th annual meeting held in Austin, Texas on March 24, 2015 does hereby express the gratitude and appreciation of the Commission and its staff for the untiring service and counsel rendered by Estevan R. Lopez in addressing the many technical, legal, and political water resource problems that have confronted the Commission during his tenure as the Engineer Adviser for New Mexico; and

BE IT FURTHER RESOLVED, that the Rio Grande Compact Commission, its advisers and staff sincerely wish Estevan R Lopez, his wife Susanna and their family the best of all health, happiness and prosperity in all their future endeavors; and

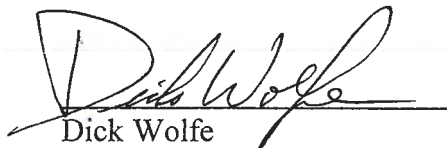
BE IT FURTHER RESOLVED, that the New Mexico Engineer Adviser of the Rio Grande Compact Commission is hereby directed to furnish copies of this unanimously adopted Resolution to Estevan R. Lopez and the Governor of the State of New Mexico, and to cause said resolution to be included in the Minutes of the 76th annual meeting of the Rio Grande Compact Commission.



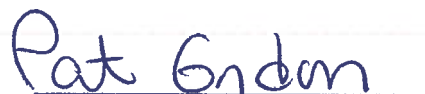
Hal Simpson
Chairman and Commissioner
For the United States of America



Tom Blaine
Commissioner for New Mexico



Dick Wolfe
Commissioner for Colorado



Patrick R. Gordon
Commissioner for Texas

RESOLUTION
RIO GRANDE COMPACT COMMISSION
Honoring Scott A. Verhines

March 24, 2015

WHEREAS, Scott A. Verhines served as the New Mexico State Engineer and Secretary of the New Mexico Interstate Stream Commission from 2012 through 2014; and

WHEREAS, Scott A. Verhines served as the Rio Grande Compact Commissioner for New Mexico from 2012 through 2014; and

WHEREAS, Scott A. Verhines worked tirelessly and calmly to address difficult New Mexico water resources issues during one of the most severe and protracted droughts in more than a century; and

WHEREAS, during his tenure, Scott A. Verhines protected New Mexico's compact entitlements to the waters of the Rio Grande, and is regarded by all as a competent and knowledgeable professional whose judgment can be trusted; and

WHEREAS, Scott A. Verhines rendered meritorious service to the Rio Grande Compact Commission in matters related to the conservation, utilization and development of the water and related land resources of the Rio Grande Basin; and

WHEREAS, as a result of his professional conduct in addressing numerous matters regarding administration of the Rio Grande, his fellow Commissioners, their advisers and staff have developed great respect, admiration and appreciation for Scott A. Verhines.

NOW, THEREFORE, BE IT RESOLVED, that the Rio Grande Compact Commission, at its 76th annual meeting held in Austin, Texas on March 24, 2015 does hereby express the gratitude and appreciation of the Commission and its staff for the untiring service and counsel rendered by Scott A. Verhines in addressing the many technical, legal, and political water resource problems that have confronted the Commission during his tenure as the Rio Grande Compact Commissioner for New Mexico; and

BE IT FURTHER RESOLVED, that the Rio Grande Compact Commission, its advisers and staff sincerely wish Scott A. Verhines, his wife Cathy and their family the best of all health, happiness and prosperity in all their future endeavors; and

BE IT FURTHER RESOLVED, that the New Mexico Engineer Adviser of the Rio Grande Compact Commission is hereby directed to furnish copies of this unanimously adopted Resolution to Scott A. Verhines and the Governor of the State of New Mexico, and to cause said resolution to be included in the Minutes of the 76th annual meeting of the Rio Grande Compact Commission.



Hal Simpson
 Chairman and Commissioner
 For the United States of America



Dick Wolfe
 Commissioner for Colorado



Tom Blaine
 Commissioner for New Mexico



Patrick R. Gordon
 Commissioner for Texas

**RESOLUTION
RIO GRANDE COMPACT COMMISSION**

Honoring Subhas Shah

March 24, 2015

WHEREAS, the Rio Grande Compact Commission works closely with various state and local water agencies, including the Middle Rio Grande Conservancy District (MRGCD) in New Mexico; and

WHEREAS, Subhas Shah had a distinguished career at the MRGCD over thirty-seven years, including service as the District's Chief Engineer and Chief Executive officer; and

WHEREAS, Subhas Shah, during his career, experienced and operated the MRGCD during some of the wettest and driest years in the historic record and stewarded improvements to MRGCD infrastructure and operations that will have long lasting benefits to Middle Rio Grande Valley and its constituents; and

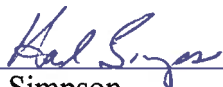
WHEREAS, the MRGCD regularly sponsored annual meetings of the Rio Grande Compact Commission in New Mexico and the Rio Grande Compact Commission worked with Subhas Shah on numerous water supply and Rio Grande Compact-related issues, primarily regarding the waters of the Middle Rio Grande in New Mexico; and

WHEREAS, during his tenure with the MRGCD Subhas Shah encountered many challenging issues, and in meeting those challenges always emerged with representation of the highest quality; and

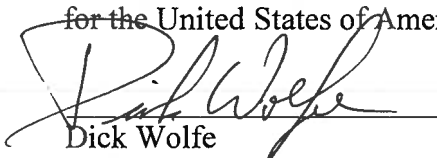
WHEREAS, Subhas Shah retired on January 16, 2015, after many years of dedicated service to the constituents along the middle Rio Grande.

NOW, THEREFORE, BE IT RESOLVED, that the Rio Grande Compact Commission assembled at its 76th Annual Meeting held in Austin, Texas, on March 24, 2015 hereby acknowledges and expresses its recognition and appreciation for Subhas Shah's faithful and competent service; and

BE IT FURTHER RESOLVED, that the New Mexico Engineer Adviser to the Rio Grande Compact Commission is hereby directed to furnish copies of this resolution to Subhas Shah and cause said resolution to be included in the Minutes of the 76th Annual Meeting of the Rio Grande Compact Commission.



Hal Simpson
Chairman and Commissioner
for the United States of America



Dick Wolfe
Commissioner for Colorado



Tom Blaine
Commissioner for New Mexico



Patrick R. Gordon
Commissioner for Texas

WATER RESOURCES DATA

ACKNOWLEDGMENTS

This report was prepared by the U.S. Geological Survey, secretary to the Rio Grande Compact Commission. The water-supply data contained in this report have been provided by various Federal and State agencies.

The office of the State Engineer of Colorado provided records of transmountain diversions and of storage for the following:

Squaw Lake	Jumper Creek Reservoir	Mill Creek Reservoir
Rito Hondo Reservoir	Big Meadows Reservoir	Fuchs Reservoir
Hermit Lakes Reservoir No. 3	Alberta Park Reservoir	Platoro Reservoir
Troutvale No. 2 Reservoir	Shaw Lake Enlargement	Trujillo Meadows Reservoir

The office of the State Engineer of Colorado provided records of discharge for the following:

Rio Grande near Del Norte, Colo.	Los Pinos River near Ortiz, Colo.
Conejos River below Platoro Reservoir, Colo.	Conejos River near Lasauses, Colo.
Conejos River near Mogote, Colo.	Rio Grande near Lobatos, Colo.
San Antonio River at Ortiz, Colo.	

The U.S. Bureau of Reclamation, Albuquerque, N. Mex., provided the following records:

Azotea Tunnel at Outlet, near Chama, N. Mex.	Storage in Heron Reservoir near Los Ojos, N. Mex.
Willow Creek above Heron Res., near Los Ojos, N. Mex.	Willow Creek below Heron Dam, N. Mex.
Horse Lake Creek above Heron Res., near Los Ojos, N. Mex.	Storage in El Vado Reservoir near Tierra Amarilla, N. Mex.

The U.S. Geological Survey, in cooperation with the U.S. Bureau of Reclamation, Albuquerque, N. Mex, provided the following records:

Storage in Nambe Falls Reservoir near Nambe, N. Mex.
Rio Nambe below Nambe Falls Dam, near Nambe, N. Mex.

The U.S. Geological Survey supplied the record for Rio Grande below Elephant Butte Dam, and in cooperation with the New Mexico Interstate Stream Commission, also provided the following:

Rio Chama below El Vado Dam, N. Mex.	Santa Fe River near Santa Fe, N. Mex.
Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.	Storage in Nichols Reservoir near Santa Fe, N. Mex.
Storage in McClure Reservoir near Santa Fe, N. Mex.	

The U.S. Geological Survey, in cooperation with the Corps of Engineers, Albuquerque, N. Mex., also provided the following records:

Rio Chama below Abiquiu Dam, N. Mex.
Rio Grande below Cochiti Dam, N. Mex.
Galisteo Creek below Galisteo Dam, N. Mex.
Jemez River below Jemez Canyon Dam, N. Mex.

The Corps of Engineers, Albuquerque, N. Mex., provided the following records of storage:

Abiquiu Reservoir.
Galisteo Reservoir.
Jemez Canyon Reservoir.
Cochiti Lake.

The Laguna Agency, Bureau of Indian Affairs, Laguna, N. Mex., supplied the records of storage in Seama Reservoir.

The U.S. Bureau of Reclamation, El Paso, Texas, provided the following records:

Storage in Elephant Butte Reservoir at Elephant Butte, N. Mex.
Storage in Caballo Reservoir near Arrey, N. Mex.
Rio Grande below Caballo Dam, N. Mex.
Bonito ditch below Caballo Dam, N. Mex.

The Rio Grande Compact Commission gratefully acknowledges the cooperation received from the agencies listed above.

ACCURACY OF RECORDS

The Rules and Regulations of the Commission state that the equipment, method, and frequency of measurement at each gaging station shall be sufficient to obtain records at least equal in accuracy to those classified as "good" by the U.S. Geological Survey. Within the physical limitations of stream gaging, the agencies obtaining the records at Compact gaging stations have complied with these regulations.

The accuracy of streamflow records depends primarily on (1) the stability of the stage- discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description states the degree of accuracy attributed to the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair" within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record. The probable error in a monthly or annual mean discharge depends more on the distribution of the daily errors between the limits than it does on the limits themselves. For this reason, monthly and annual records are more accurate than most daily records.

STREAMFLOW

Rio Grande near Del Norte, Colo

Location. -- Water-stage recorder, lat 37°41'19.0", long 106°27'35.5", in NW1/4 NW 1/4 sec. 29, T. 40 N., R. 5 E., on right bank, 40 ft downstream from county highway bridge, 6 mi west of Del Norte, and 5.0 mi upstream from Pinos Creek. Datum of gage is 7,980.25 ft above National Geodetic Vertical Datum of 1929. Prior to May 16, 1908, staff gage at site 4 mi downstream at different datum. Records are equivalent.

Drainage area. -- 1,320 sq mi, approximately

Average discharge. -- 125 years (1890-2014), 887 ft³/s (642,400 acre-ft per year).

Extremes. -- 1889-2014: Maximum discharge, 18,000 ft³/s Oct. 5, 1911 (gage height, 6.80 ft), from rating curve extended above 12,900 ft³/s; minimum daily, 74 ft³/s Nov. 16, 1956.

Remarks. -- Records good except for estimated for estimated daily discharges, which are poor.

Flow regulated by four reservoirs, total capacity 126,100 acre-ft, and by several smaller ones. Six transmountain diversions import water into basin above station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	5,970	215	175	193	11,800
February	6,050	255	180	216	12,000
March	8,690	327	255	280	17,200
April	39,000	3,080	316	1,300	77,300
May	85,200	5,390	1,110	2,750	169,000
June	85,700	5,160	1,280	2,860	170,000
July	21,800	1,170	433	703	43,200
August	15,500	734	373	501	30,800
September	14,300	1,960	288	476	28,300
October	23,200	1,490	461	748	46,000
November	10,300	545	235	342	20,300
December	6,450	280	155	208	12,800
Calendar year 2014	322,160	5,390	155	881	638,700

Conejos River below Platoro Reservoir, Colo.

Location. -- Water-stage recorder and concrete control, lat 37°21'17.65", long 106°32'39", in SW 1/4NW 1/4 sec. 22, T. 36 N., R. 4 E., on left bank 1,100 ft downstream from valve house for Platoro Reservoir, and 0.7 mi northwest of Platoro. Datum of gage is 9,866.60 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

Drainage area. -- 40 sq mi, approximately.

Average discharge. -- 62 years (1890-2014), 91 ft³/s (65,950 acre-ft per year).

Extremes. -- 1952-2014: Maximum discharge, 1,160 ft³/s Nov. 1, 1957; maximum gage height, 4.29 ft June 15, 1958; no flow Oct. 16-20, 1955.

Remarks. -- Records good except for estimated daily discharges, which are poor. No diversions above station. Flow completely regulated by Platoro Reservoir (capacity, 59,570 acre-ft).

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	232	8.8	6.9	7.5	461
February	191	6.9	6.6	6.8	380
March	212	7.0	6.6	6.8	420
April	2,510	209	7.0	84	4,980
May	7,480	515	67	241	14,800
June	6,760	438	27	225	13,400
July	4,520	219	93	146	8,970
August	2,790	125	56	90	5,530
September	2,140	145	19	71	4,240
October	1,140	75	27	37	2,270
November	979	37	30	33	1,940
December	589	37	11	19	1,170
Calendar year 2014	29,543	515	6.6	81	58,561

STREAMFLOW

Conejos River near Mogote, Colo

Location. -- Water-stage recorder, lat 37°03'14", long 106°11'13", in SE 1/4SE 1/4 sec. 34, T. 33 N., R. 7 E., on left bank 75 ft downstream from bridge on State Highway 174, 0.4 mi downstream from Fox Creek, and 5.3 mi west of Mogote, and 10 mi west of Antonito. Datum of gage is 8,269.39 ft above National Geodetic Vertical Datum of 1929.

Drainage area. -- 282 sq mi.

Average discharge. -- 104 years (1904, 1912-2014), 318 ft³/s (230,300 acre-ft per year).

Extremes. -- 1903-05, 1911-2014: Maximum discharge, 9,000 ft³/s Oct. 5, 1911 (gage height, 8.50 ft), from rating curve extended above 3,100 ft³/s; minimum daily determined, 10 ft³/s July 18, 1904, also occurred Aug. 19, 2002.

Remarks. -- Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 500 acres. Since 1951 flow partly regulated by Platoro Reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	1,210	49	32	39	2,400
February	1,240	56	36	44	2,460
March	2,220	108	56	72	4,400
April	10,600	817	83	352	20,900
May	25,800	1,940	302	832	51,200
June	22,000	1,480	264	732	43,600
July	8,320	474	169	269	16,500
August	5,160	255	115	167	10,200
September	3,480	173	65	116	6,900
October	2,940	150	75	95	5,830
November	2,370	105	58	79	4,710
December	1,700	92	40	55	3,370
Calendar year 2014	87,040	1,940	32	238	172,470

San Antonio River at Ortiz, Colo

Location. -- Water-stage recorder, lat 36°59'35", long 106°02'17", in New Mexico in NE1/4 SE1/4, sec. 24, T. 32 N., R. 8 E., on left bank 800 ft south of New Mexico-Colorado State line, 0.4 mi southeast of Ortiz, and 0.4 mi upstream from Los Pinos River. Altitude of gage is 7,970 ft above National Geodetic Vertical Datum of 1929.

Drainage area. -- 110 sq mi.

Average discharge. -- 74 years (1941-2014), 24 ft³/s (17,480 acre-ft per year).

Extremes. -- 1920, 1925-2014: Maximum discharge, 1,750 ft³/s Apr. 15, 1937 (gage height, 5.38 ft), from rating curve extended above 1,100 ft³/s; no flow at times.

Remarks. -- Records good except for discharges less than 3.0 ft³/s, and estimated daily discharges, which are poor. A few small diversions above station for irrigation.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	56	2.6	1.2	1.8	111
February	254	14	1.9	9.1	504
March	365	20	8.6	12	724
April	1,660	141	8.7	55	3,290
May	751	38	8.7	24	1,490
June	43	7.1	0.0	1.4	84
July	68	14	0.0	2.2	135
August	43	5.3	0.22	1.4	85
September	0.48	0.26	0.0	0.0	1.0
October	32	2.0	0.0	1.0	63
November	49	3.7	1.1	1.6	97
December	48	1.9	1.0	1.5	94
Calendar year 2014	3,369	141	0.0	9.3	6,678

STREAMFLOW

Los Pinos River near Ortiz, Colo

Location. -- Water-stage recorder, lat 36°58'56", long 106°04'23", in New Mexico on line between secs. 26 and 27, T. 32 N., R. 8 E., on left bank 0.9 mi south of New Mexico-Colorado State line, 2.1 mi southwest of Ortiz, and 2.9 mi upstream from mouth. Altitude of gage is 8,040 ft. above National Geodetic Vertical Datum of 1929.

Drainage area. -- 167 sq mi.

Average discharge. -- 96 years (1915-20, 1925-2014), 116 ft³/s (83,780 acre-ft per year).

Extremes. -- 1915-20, 1925-2014: Maximum discharge, 3,160 ft³/s May 12, 1941 (gage height, 5.77 ft, site and datum then in use), from rating curve extended above 1,600 ft³/s; minimum observed, 1.7 ft³/s Aug. 27, 2002.

Remarks. -- Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	455	17	11	15	902
February	541	28	13	19	1,070
March	915	38	24	30	1,810
April	7,360	640	31	245	14,600
May	10,300	458	195	331	20,400
June	3,230	338	23	108	6,410
July	822	47	17	27	1,630
August	644	38	13	21	1,280
September	356	34	8.2	12	706
October	575	29	13	18	1,140
November	481	27	9.0	16	954
December	485	20	11	16	962
Calendar year 2014	26,164	640	8.2	72	51,864

Conejos River near Lasauses, Colo

Location. -- Water-stage recorder, lat 37°18'01", long 105°44'47", in SW 1/4 SW 1/4 sec. 2, T. 35 N., R. 11 E., on left bank of main channel 125 ft downstream from bridge on State Highway 158, 2.1 mi north of Lasauses, and on left bank of secondary channel 1,550 ft upstream from bridge, 1.0 mi upstream from mouth, and 1.5 mi north of Lasauses. Datum of gage on main channel is 7,495.02 ft and on secondary (south) channel is 7,499.86 ft above main sea level (levels by Bureau of Reclamation).

Drainage area. -- 887 sq mi.

Average discharge. -- 93 years (1922-2014), 170 ft³/s (123,500 acre-ft per year).

Extremes. -- 1921-2014: Maximum discharge, 3,890 ft³/s May 15, 1941; no flow at times in some years.

Remarks. -- Records good except for estimated daily discharge, which are poor. Diversions above station for irrigation of about 75,000 acres above station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	1,630	72	39	52	3,230
February	2,100	116	42	75	4,160
March	3,340	126	97	108	6,620
April	1,080	102	6.6	36	2,150
May	1,780	555	8.1	57	3,530
June	4,080	472	9.6	136	8,100
July	2,360	212	40	76	4,690
August	1,840	152	14	60	3,660
September	661	62	5.0	22	1,310
October	1,160	61	7.6	38	2,300
November	2,080	88	46	69	4,130
December	1,810	94	33	58	3,600
Calendar year 2014	23,921	555	5.0	66	47,480

STREAMFLOW

Rio Grande near Lobatos, Colo

Location. -- Water-stage recorder, lat 37°04'43", long 105°45'25", in NE1/4 NW1/4 sec. 27, T. 33 N., R. 11 E., on right bank at highway bridge, 5.7 mi north of Colorado-New Mexico State line, 11 mi east of Lobatos, and 14 mi east of Antonito. Datum of gage is 7,427.63 ft above National Geodetic Vertical Datum of 1929.

Drainage area. -- 7,700 sq mi, approximately (includes 2,940 sq mi in closed basin in San Luis Valley).

Average discharge. -- 32 years (1900-30), 846 ft³/s (612,900 acre-ft per year); 84 years (1931-2014) 427 ft³/s (309,500 acre-ft per year).

Extremes. -- 1899-2014: Maximum discharge observed, 13,200 ft³/s June 8, 1905 (gage height, 9.1 ft); from rating curve extended above 8,000 ft³/s; no flow at times in 1950-51, 1956.

Remarks. -- Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	7,990	280	245	258	15,800
February	9,480	486	240	339	18,800
March	14,600	562	412	471	28,900
April	6,010	467	111	200	11,900
May	9,120	807	140	294	18,100
June	15,200	1,020	276	506	30,100
July	10,200	474	203	331	20,300
August	7,040	458	133	227	14,000
September	3,630	193	74	121	7,200
October	9,300	416	101	300	18,400
November	13,500	600	265	451	26,800
December	9,880	440	195	319	19,600
Calendar year 2014	115,950	1,020	74	318	229,900

Willow Creek above Heron Reservoir, near Los Ojos, N. Mex.

Location. -- Water-stage recorder, lat 36°44'33", long 106°37'34", in Tierra Amarilla Grant, on right bank 200 ft downstream from bridge, 0.2 mi downstream from Iron Spring Creek, 3.3 mi west of Los Ojos, and at mi 9.7. Datum of gage is 7,196.29 ft above mean sea level. Prior to Apr. 1, 1971, at site 900 ft downstream.

Drainage area. -- 112 sq mi.

Average discharge. -- 7 years (1963-69), 11.5 ft³/s (8,330 acre-ft per year) prior to completion of Azotea tunnel; 45 years (1970-2014) 132 ft³/s (96,810 acre-ft per year) subsequent to completion of Azotea tunnel.

Extremes. -- 1962-2011: Maximum discharge, 1,610 ft³/s Mar. 12, 1985 (gage height, 6.65 ft); no flow at times.

Remarks. -- Records good except those for winter months, which are fair. Subsequent to Nov. 16, 1970, flow affected by transmountain diversions through Azotea tunnel. Flow in Rutherford Drain included prior to Apr. 1, 1971.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	0.0	0.0	0.0	0.0	0.0
February	219	39.0	0.0	7.8	435.0
March	1,060	103	5.0	34	2,100
April	7,290	482	33	243	14,500
May	10,600	777	92	343	21,100
June	10,100	818	55.0	337	20,000
July	1,070	175	2.0	35	2,130
August	446	79	0.0	14	884
September	375	153	0.0	12	743
October	749	93	1.5	24	1,490
November	205	22	0.0	7.0	407
December	0.0	0.0	0.0	0.0	0.0
Calendar year 2014	32,114	818	0.0	88	63,789

STREAMFLOW

Horse Lake Creek above Heron Reservoir, near Los Ojos, N. Mex.

Location. -- Water-stage recorder, lat 36°42'24", long 106°44'42", in Tierra Amarilla Grant, on right bank 3.7 mi northwest of Heron Dam, 7.8 mi downstream from Horse Lake, and 9.9 mi west of Los Ojos. Datum of gage is 7,188.85 ft above National Geodetic Vertical Datum of 1929. Prior to July 1, 1971, at site 1,100 ft upstream.

Drainage area. -- 45 sq mi, approximately.

Average discharge. -- 12 years (1963-73,1986), 1.17 ft³/s (848 acre-ft per year).

Extremes. -- 1963-2011: Maximum discharge, 3,960 ft³/s July 30, 1968 (gage height, 4.9 ft); no flow most of time.

Remarks. -- Records good for period of record. Diversions above station for irrigation of meadows and for off-channel stock tanks. Seasonal gage discontinued in 2011.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	---	---	---	---	---
February	---	---	---	---	---
March	---	---	---	---	---
April	---	---	---	---	---
May	---	---	---	---	---
June	---	---	---	---	---
July	---	---	---	---	---
August	---	---	---	---	---
September	---	---	---	---	---
October	---	---	---	---	---
November	---	---	---	---	---
December	---	---	---	---	---
Calendar year 2014	---	---	---	---	---

Willow Creek below Heron Dam, N. Mex.

Location. -- Totalizing flowmeters, lat 36°39'46", long 106°42'20", in Tierra Amarilla Grant, in outlet conduits at Heron Dam, 0.2 mi upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

Drainage area. -- 193 sq mi.

Average discharge. -- 44 years (1971-2014), 129 ft³/s (93,770 acre-ft per year).

Extremes. -- 1971-2012: Maximum daily discharge, 2,780 ft³/s Dec. 18, 19, 1982; no flow at times each year.

Remarks. -- Records excellent. Flow completely regulated by Heron Dam.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	1,260	68	0.0	41	2,490
February	1,180	42	42	42	2,330
March	101	42	0.0	3.3	200
April	2,800	700	0.0	93	5,550
May	2,910	404	0.0	94	5,760
June	12,000	406	395	399	23,700
July	12,500	405	397	402	24,700
August	4,620	402	0.0	149	9,150
September	115	25	0.0	3.8	228
October	775	25	25.0	25	1,540
November	1,070	57	25.0	36	2,120
December	2,220	75	41	72	4,400
Calendar year 2014	41,551	700	0.0	113	82,168

STREAMFLOW

Rio Chama below El Vado Dam, N. Mex

Location. -- Water-stage recorder with satellite telemetry, lat 36°34'49.38", long 106°43'29.16", in Tierra Amarilla Grant, on left bank 1.5 mi downstream from El Vado Dam, 2.8 mi upstream from Rio Nutrias, and 13 mi southwest of Tierra Amarilla.

Datum of gage is 6,696.12 ft above National Geodetic Vertical Datum of 1929. Prior to October 1935, at site 1.5 mi upstream and October 1935 to September 1938, at site 1.1 mi upstream at different datums.

Drainage area. -- 877 sq mi, of which about 100 sq mi is probably noncontributing.

Average discharge. -- 4 years (1914, 1921-23), 448 ft³/s (324,600 acre-ft per year), prior to completion of El Vado Dam; 35 years (1936-70), 373 ft³/s (270,200 acre-feet per year), prior to release of transmountain water; 44 years (1971-2014) 455 ft³/s (329,500 acre-feet per year).

Extremes. -- 1914-16, 1920-24, 1936-2013; Maximum discharge observed, 9,000 ft³/s May 22, 1920 (gage height, 12 ft); no flow Mar. 25, 26, 31, 1955.

Remarks. -- Records good. Diversions above station for irrigation of about 10,600 acres. Since 1935 flow regulated by El Vado Reservoir and since October 1970 flow partly regulated by Heron Reservoir. Subsequent to May 1971 flow affected by releases of transmountain water from Heron Reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	1,820	100	50	59	3,610
February	1,390	52	48	50	2,760
March	1,510	75	43	48	2,990
April	10,600	1,600	99	354	21,100
May	14,200	611	198	457	28,100
June	10,300	609	151	342	20,400
July	12,800	607	292	412	25,300
August	13,100	601	284	421	25,900
September	13,600	814	269	454	27,000
October	3,700	244	78	119	7,340
November	3,810	225	79	127	7,550
December	6,510	245	129	210	12,900
Calendar year 2014	93,340	1,600	43	254	184,950

Rio Chama below Abiquiu Dam, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 36°14'14", long 106°25'02.7", on right bank 0.8 mi downstream from Abiquiu Dam and 5.9 mi northwest of Abiquiu. Altitude of gage is 6,040 ft above National Geodetic Vertical Datum of 1929 (from river-profile map and topographic map).

Drainage area. -- 2,147 sq mi, of which about 100 sq mi is probably noncontributing.

Average discharge. -- 9 years (1962-70), 384 ft³/s (278,200 acre-ft per year), prior to release of transmountain water; 43 years (1971-2014), 501 ft³/s (363,000 acre-feet per year).

Extremes. -- 1961-2014; Maximum discharge, 2,990 ft³/s July 1, 1965 (gage height, 6.69 ft); minimum, about 0.5 ft³/s Mar. 17, 1966, Jan. 28, 1972.

Remarks. -- Records good. Flow regulated by Heron, El Vado, and Abiquiu Reservoirs. Diversions above station for irrigation of about 17,600 acres. Subsequent to May 1971 flow affected by the release of transmountain water from Heron Reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	2,270	76	70	73	4,490
February	2,100	78	71	75	4,160
March	2,370	81	70	76	4,710
April	12,800	568	131	426	25,400
May	26,000	1,710	205	840	51,700
June	15,300	753	294	509	30,000
July	11,700	770	144	377	23,200
August	12,100	627	141	392	24,100
September	13,600	721	101	452	26,900
October	4,610	370	74	149	9,150
November	2,970	173	75	99	5,890
December	6,240	244	72	201	12,400
Calendar year 2014	112,060	1,710	70	306	222,100

STREAMFLOW

Rio Nambe below Nambe Falls Dam, near Nambe, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 35°50'46", long 105°54'35", on Nambe Indian Reservation, in outlet conduits at Nambe Falls Dam, 300 ft upstream from Nambe Falls, 2.6 mi upstream from confluence of Rio Nambe and Rio En Medio, 4.4 mi southeast of Nambe Pueblo, and 5.4 mi southeast of Nambe. Datum of gage is 6,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Drainage area. -- 34.1 sq mi.

Average discharge. -- 36 years (1979-2014), 13 ft³/s (9,240 acre-feet per year).

Extremes. -- 1979-2013; Maximum discharge, 250 ft³/s June 9, 1979 at site 1,100 ft downstream; no flow December 31, 1993.

Remarks. -- Records good. Flow completely regulated by Nambe Falls Reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	129	5.7	1.8	4.2	255
February	96	4.5	1.6	3.4	191
March	206	16	3.1	6.6	408
April	363	18	5.6	12	719
May	581	32	10	19	1,150
June	594	32	10	20	1,180
July	404	22	3.2	13	801
August	502	23	3.7	16	995
September	507	26	11	17	1,010
October	238	11	5.0	7.7	473
November	166	5.8	5.3	5.5	329
December	142	5.9	3.9	4.6	282
Calendar year 2014	3,928	32	1.6	11	7,793

Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 35°52'28.2", long 106°08'32.8", in San Ildefonso Pueblo Grant, 400 ft downstream from bridge on State Highway 502, 1.8 mi southwest of San Ildefonso Pueblo, 2.5 mi downstream from Pojoaque River, and 6.8 mi west of Pojoaque. Datum of gage is 5,488.48 ft above National Geodetic Vertical Datum of 1929. Prior to May 19, 1904, and July 25 to Oct 1, 1904, staff gage at site 180 ft upstream at datum 2.02 ft lower.

Drainage area. -- 14,300 sq mi, approximately (includes 2,940 sq mi in closed basin in San Luis Valley, Colo.).

Average discharge. -- 115 years (1896-1905, 1910-2014), 1,482 ft³/s (1,074,000 acre-feet per year).

Extremes. -- 1895-1905, 1910-2014; Maximum discharge, 24,400 ft³/s May 23, 1920 (gage height, 14.1 ft); minimum daily, 195 ft³/s Aug. 4, 1977.

Remarks. -- Records good. Flow partly regulated by Heron, El Vado, and Abiquiu Reservoirs. Diversions above station for irrigation of about 620,000 acres in Colorado and 75,000 acres in New Mexico. Subsequent to May 1971 flow affected by releases of transmountain water from Heron Reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	19,200	661	589	619	38,100
February	19,100	817	570	681	37,800
March	24,400	903	718	786	48,400
April	29,000	1,250	721	966	57,400
May	46,100	2,180	925	1,490	91,500
June	40,700	1,970	1,160	1,360	80,700
July	34,000	2,260	812	1,100	67,500
August	28,000	1,860	647	902	55,500
September	22,600	1,220	416	754	44,900
October	20,000	754	561	644	39,600
November	23,100	885	613	772	45,900
December	24,200	919	540	781	48,000
Calendar year 2014	330,400	2,260	416	905	655,300

STREAMFLOW

Santa Fe River near Santa Fe, N. Mex.

Location. -- Water-stage recorder with satellite telemetry and concrete control, lat 35°41'11.2", long 105°50'37", in Santa Fe National Forest, on left bank 0.4 mi downstream from McClure Dam, and 5.3 mi east of Santa Fe at mile 36.6. Altitude of gage is 7,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 4, 1930, at site 1.5 mi downstream, and Apr. 11, 1931 to Sept. 30, 1947, at site 0.3 mi upstream, each at different datum.

Drainage area. -- 18.2 sq mi.

Average discharge. -- 102 years (1913-2014), 7.9 ft³/s (5,700 acre-feet per year).

Extremes. -- 1913-2014; Maximum discharge, 1,500 ft³/s Aug. 14, 1921 (gage height, 5.17 ft); from rating curve extended above 150 ft³/s; minimum, no flow Aug. 2-10, 2000.

Remarks. -- Records good. Flow regulated by McClure Reservoir, completed in 1926, raised in 1935, 1947 and again in 1989.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	69	2.3	2.2	2.2	137
February	65	2.4	2.2	2.3	128
March	180	15	2.2	5.8	357
April	517	20	15	17	1,030
May	304	19	1.7	9.8	602
June	496	19	11	16	984
July	410	23	0.82	13	813
August	149	12	0.80	4.8	295
September	74	4.8	1.2	2.5	148
October	87	3.2	2.3	2.8	172
November	55	2.8	1.5	1.8	108
December	58	3.5	1.3	1.9	115
Calendar year 2014	2,464	23	0.80	6.7	4,889

Rio Grande below Cochiti Dam, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 35°37'04.8", long 106°19'26.2", in Pueblo de Cochiti Grant, 320 ft upstream from bridge on State Highway 22, 700 ft downstream from Cochiti Dam, and 1.4 mi northeast of Cochiti Pueblo, and at mile 1,587.6. Datum of gage is 5,226.08 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 14, 1973, at site 2.4 mi downstream at altitude 5,210 ft, from topographic map. Nov. 14, 1973 to Jan. 8, 1976, at site 320 ft downstream at datum 1.79 ft lower.

Drainage area. -- 14,900 sq mi, approximately (includes 2,940 sq mi in closed basin in San Luis Valley, Colo.).

Average discharge. -- 44 years (1971-2014), 1,279 ft³/s (926,000 acre-feet per year).

Extremes. -- 1971-2014; Maximum discharge, 10,300 ft³/s July 26, 1971 (gage height, 7.90 ft) at site 2.4 mi downstream prior to closure of Cochiti Dam; from rating curve extended above 2,600 ft³/s; minimum discharge 0.51 ft³/s Aug. 3-5, 1977, Aug. 27-28, 1978.

Remarks. -- Records good. Since Nov. 12, 1973, flow completely regulated by Cochiti Dam. Cochiti Eastside Main Canal on left bank and Sili Main Canal on right bank bypass station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	16,700	604	423	539	33,200
February	17,900	943	534	639	35,500
March	22,700	954	580	731	45,000
April	23,700	936	634	791	47,100
May	41,000	1,820	920	1,320	81,300
June	34,000	1,740	926	1,130	67,500
July	25,700	1,320	655	829	51,000
August	23,200	1,500	550	748	46,000
September	15,700	692	321	524	31,100
October	14,300	578	403	461	28,400
November	22,000	836	448	733	43,600
December	24,800	911	382	801	49,200
Calendar year 2014	281,700	1,820	321	771	558,900

STREAMFLOW

Galisteo Creek below Galisteo Dam, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 35°27'52.75", long 106°12'48.2", in Mesita de Juana Lopez Grant, on right bank 0.4 mi downstream from Galisteo Dam, 5.3 mi northwest of Cerrillos, and at mile 11.4. Elevation of gage is 5,450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 21, 1981, at site 1,200 ft downstream at different datum.

Drainage area. -- 596 sq mi.

Average discharge. -- 44 years (1971-2014), 5.1 ft³/s (3,723 acre-feet per year).

Extremes. -- 1970-2012; Maximum discharge, 3,460 ft³/s Aug. 24, 1997 (gage height, 5.57 ft); no flow many days each year.

Remarks. -- Records poor. Flow regulated by Galisteo Reservoir 0.4 mi upstream. Capacity of outlet, 5,000 ft³/s when reservoir is full. Diversions for irrigation of about 50 acres above reservoir.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	7.3	0.44	0.0	0.24	15
February	6.8	0.41	0.0	0.24	13
March	5.4	0.51	0.0	0.17	11
April	0.0	0.0	0.0	0.00	0.0
May	53	41	0.0	1.7	105
June	0.0	0.0	0.0	0.00	0.0
July	300	194	0.0	10	595
August	821	441	0.1	26	1,630
September	0.70	0.28	0.0	0.0	1.4
October	2.8	2.1	0.0	0.09	5.5
November	0.0	0.0	0.0	0.0	0.0
December	0.0	0.0	0.0	0.0	0.0
Calendar year 2014	1,197	441	0.0	3.2	2,376

Jemez River Outlet below Jemez Canyon Dam, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 35°23'41", long 106°32'41", in NE1/4 SW1/4 SW1/4 sec. 32, T. 14 N., R. 4 E., gage located at outlet pipe for Jemez Canyon Dam, 0.7 mi upstream from prior gage location. Datum of gage is 5,162 ft above National Geodetic Vertical Datum of 1929, from topographic map. Gage replaces Jemez River below Jemez Canyon Dam. Discharge records for two gages are comparable except the period 2002-2009, when original gage was affected by siltation.

Drainage area. -- 1,034 sq mi.

Average discharge. -- 5 years (2010-2014), 28 ft³/s (20,170 acre-feet per year).

Extremes. -- 2013; Maximum discharge, 1,420 cfs Jul. 27, 2013, gage height 4.82; no flow many days each year.

Remarks. -- Records good. Flow regulated by Jemez Canyon Dam since October 1953. Diversions for irrigation of about 3,000 acres above station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	520	40	1.3	17	1,030
February	686	34	12	24	1,360
March	683	40	1.2	22	1,350
April	903	56	3.5	30	1,790
May	620	44	0.0	20	1,230
June	0.0	0.0	0.0	0.0	0.0
July	1,290	312	0.0	42	2,560
August	933	281	0.0	30	1,850
September	0.0	0.0	0.0	0.0	0.0
October	167	98	0.0	5.4	332
November	111	13	1.2	3.7	221
December	445	32	0.71	14	882
Calendar year 2014	6,358	312	0.0	17	12,605

STREAMFLOW

Rio Grande below Elephant Butte Dam, N. Mex.

Location. -- Water-stage recorder with satellite telemetry, lat 33°08'54.64", long 107°12'24.42", in Pedro Armendariz Grant, on left bank 1.0 mi downstream from dam, 1.5 mi upstream from Cuchillo Negro River. Datum of gage is 4,241.09 ft above National Geodetic Vertical Datum of 1929. Prior to April 23, 1942, at several different sites and datums.

Drainage area. -- 29,450 sq mi approximately (includes 2,940 sq mi in closed basin in San Luis Valley, Colo.).

Average discharge. -- 100 years (1915-2014), 978 ft³/s (708,300 acre-feet per year).

Extremes. -- 1915-2014; Maximum daily discharge, 8,220 ft³/s May 22, 1942; no flow at times prior to 1929, Mar. 2-4, 1979.

Remarks. -- Records good. Flow regulated by Elephant Butte Reservoir. Diversions for irrigation of about 800,000 acres above station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	7.0	0.35	0.08	0.23	14
February	7.5	0.45	0.0	0.27	15
March	5.2	0.56	0.01	0.17	10
April	5.8	0.42	0.05	0.20	12
May	9,980	2,210	0.20	322	19,800
June	74,600	2,940	2,140	2,490	148,000
July	55,500	2,330	863	1,790	110,000
August	7,480	1,080.0	0.25	241	14,800
September	214	196	0.0	7.1	424
October	22	3.3	0.0	0.70	43
November	27	2.2	0.54	0.89	53
December	61	20	0.38	2.0	121
Calendar year 2014	147,910	2,940	0.0	405	293,292

Rio Grande below Caballo Dam, N. Mex.

Location. -- Water-stage recorder, lat 32°53'05.68", long 107°17'33.71", on left bank 2,000 ft upstream from Interstate Highway 25, 4,200 ft downstream from Caballo Dam, 1.2 mi downstream from Apache Canyon 1.3 mi upstream from Percha diversion dam, and 3 mi northeast of Arrey. Datum of gage is 4,140.90 ft above National Geodetic Vertical Datum of 1929. October 13, 1938 to December 31, 1945, at datum 5.0 ft higher.

Drainage area. -- 30,700 sq mi, approximately (includes 2,940 sq mi in closed basin in San Luis Valley, Colo.).

Average discharge. -- 77 years (1938-2014), 900 ft³/s (652,000 acre-feet per year).

Extremes. -- 1938-2012; Maximum daily discharge, 7,650 ft³/s May 20, 1942; minimum daily, 0.0 ft³/s May 9-15, 2012 and Oct 3, 2012

Remarks. -- Records good. Flow regulated by Elephant Butte Reservoir and Caballo Reservoirs. Diversions for irrigation of about 800,000 acres above station.

Monthly and yearly discharge, in cubic feet per second

Month	Second-foot-days	Maximum daily	Minimum daily	Mean	Runoff in acre-feet
January	34	1.2	1.0	1.0	68
February	25	0.97	0.87	0.89	50
March	27	0.87	0.87	0.87	53
April	26	0.90	0.87	0.87	52
May	14,000	2,410	0.90	453	27,900
June	69,000	2,610	2,190	2,300	137,000
July	55,900	2,120	1,250	1,800	111,000
August	14,800	1,060	6.7	479	29,400
September	164	6.7	4.1	5.5	325
October	83	4.0	1.4	2.7	164
November	30.0	1.4	0.66	1.0	60
December	18.0	0.63	0.53	0.57	35
Calendar year 2014	154,107	2,610	0.53	421	306,107

STREAMFLOW

Bonito Ditch below Caballo Dam, N. Mex.

Records available. -- January 1938 to current year. Published as supplementary data with Rio Grande below Caballo Dam in U.S.G.S. Water-Supply Papers and Water-Data Reports from October 1947 until September, 2005.

Remarks. -- Ditch diverts directly from Caballo Reservoir for irrigation of lands on right bank of river. The total release from Project Storage, as used in computations of Compact Commission, is the combined flow of this ditch and Rio Grande below Caballo Dam.

Diversion, in acre-ft

January	5.5
February	83.6
March	102.1
April	205.1
May	163.9
June	163.9
July	163.9
August	66.9
September	57.2
October	84.7
November	0.0
December	0.0
Calendar year 2014	1,096.8

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(constructed or enlarged since 1929)

Heron Reservoir. – Water-stage recorder with satellite telemetry, lat 36°39'56", long 106°42'13", on Willow Creek. Storage began in October 1970. Capacity, 401,300 acre-ft at elevation 7,186.1 ft (low point on crest of spillway); dead storage, 1,340 acre-ft at elevation 7,003.0 ft. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Used for storage of transmountain water.

Month-end elevation, in feet, and contents, in acre-feet

Date	Elevation	Contents	Change in contents
December 31, 2013	7,108.88	88,087	-
January 31, 2014	7,107.65	88,512	+425
February 28	7,106.67	83,513	-4,999
March 31	7,107.51	85,223	+1710
April 30	7,111.29	93,350	+8127
May 31	7,117.48	108,201	+14851
June 30	7,115.59	103,461	-4,740
July 31	7,105.32	80,838	-22,623
August 31	7,100.65	72,198	-8,640
September 30	7,100.64	72,181	-17
October 31	7,100.49	71,918	-263
November 30	7,099.36	69,962	-1,956
December 31, 2014	7,096.80	65,700	-4,262
Calendar year 2014	-	-	-22,387

El Vado Reservoir. – Water-stage recorder and surface follower, lat 36°35'39", long 106°44'00", on Rio Chama. Storage began in January 1935. Capacity, 186,250 acre-ft at gage height 6,902.0 ft (crest of spillway); dead storage, 480 acre-ft, below gage height 6,775.0 ft (invert of outlet works), as determined by survey in 1984. Datum of gage is 8.21 ft above National Geodetic Vertical Datum of 1929. Storage includes both Rio Grande and transmountain water.

Month-end gage height, in feet, and contents, in acre-feet

Date	Gage Height	Contents	Change in contents	Transmountain water
December 31, 2013	6,791.34	5,345	-	5,309
January 31, 2014	6,795.51	7,596	+2,251	4,230
February 28	6,801.43	11,192	+3,596	3,741
March 31	6,806.10	14,430	+3,238	938
April 30	6,828.96	36,078	+21,648	913
May 31	6,839.69	49,843	+13,765	1,912
June 30	6,847.77	61,858	+12,015	13,768
July 31	6,848.57	63,128	+1,270	17,644
August 31	6,839.20	49,164	-13,964	15,510
September 30	6,816.97	23,532	-25,632	1,966
October 31	6,813.85	20,692	-2,840	875
November 30	6,811.80	18,924	-1,768	11,488
December 31, 2014	6,805.41	13,928	-4,996	11,294
Calendar year 2014	-	-	+8,583	-

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(constructed or enlarged since 1929)

Abiquiu Reservoir. -- Water-stage recorder, lat 36°14'24", long 106°25'44", on Rio Chama. Completed in February 1963; capacity, 1,192,800 acre-ft at elevation 6,350 feet (crest of spillway) by 1998 survey. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Reservoir is operated by Corps of Engineers for flood control and sediment storage. A resolution granting permission to store transmountain waters was approved by Rio Grande Compact Commission on May 3, 1974. Storage includes both Rio Grande and transmountain water.

Month-end elevation, in feet, and contents, in acre-feet

Date	Elevation	Contents	Change in contents	Transmountain water
December 31, 2013	6,212.38	154,603	-	150,413
January 31, 2014	6,212.14	153,719	-884	149,626
February 28	6,211.89	152,799	-920	148,673
March 31	6,211.58	151,660	-1,139	147,561
April 30	6,210.28	146,920	-4,740	143,454
May 31	6,204.38	128,882	-18,038	128,589
June 30	6,201.34	118,978	-9,904	118,950
July 31	6,203.52	126,057	+7079	126,019
August 31	6,204.59	129,575	+3518	129,517
September 30	6,204.69	129,905	+330	129,842
October 31	6,203.95	127,468	-2,437	127,412
November 30	6,204.03	127,729	+261	127,593
December 31, 2014	6,204.29	128,586	+857	129,078
Calendar year 2014	-	-	-26,017	-

Nambe Falls Reservoir. -- Water-stage recorder, lat 35°50'46", long 105°54'17", in NE1/4SW1/4 sec. 29, T. 19 N., R. 10 E., in Nambe Indian Reservation, on Rio Nambe. Completed in 1976; capacity 1,920 acre-ft at elevation 6,826.6 feet (crest of spillway) by 2004 survey, dead storage 121 acre-ft at elevation 6,760.9 ft. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Storage is transmountain water by exchange (see resolution adopted March 27, 1975).

Month-end elevation, in feet, and contents, in acre-feet

Date	Elevation	Contents	Change in contents
December 31, 2013	6,825.25	1,843	-
January 31, 2014	6,825.93	1,881	+38
February 28	6,826.96	1,941	+60
March 31	6,826.81	1,932	-9
April 30	6,826.87	1,935	+3
May 31	6,826.86	1,935	0
June 30	6,825.51	1,857	-78
July 31	6,824.02	1,775	-82
August 31	6,822.73	1,706	-69
September 30	6,810.04	1,117	-589
October 31	6,806.48	981	-136
November 30	6,806.69	989	+8
December 31, 2014	6,807.76	1,029	+40
Calendar year 2014	-	-	-814

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(constructed or enlarged since 1929)

McClure (Granite Point) Reservoir. – Water-stage recorder, lat 35°41'18", long 105°50'06", in NE1/4SW1/4 sec. 24, T. 17 N., R. 10 E., on Santa Fe River. Original reservoir completed in 1926, capacity, 561 acre-ft; in 1935, permanent flash boards were installed in spillway increasing capacity to 650 acre-ft; in 1947 both dam and spillway were reconstructed increasing capacity to 2,615 acre-ft (gage height, 96.6 ft, crest of spillway). In 1953 spillway was equipped with radial gates that opened automatically, increasing capacity to over 3,000 acre-ft. In 1972, radial gates were removed decreasing capacity to 2,615 acre-ft. In 1989, modifications to the dam and spillway increased capacity to 2,813 acre-ft. In 1995, modification to the dam and spillway increased capacity to 3,257 acre-ft. No dead storage. Elevation of gage is 7,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Water is for municipal use in Santa Fe. Storage includes both Rio Grande water and transmountain water by exchange. Capacity includes 561 acre-ft for pre-Compact storage and additional capacity as may be available to accommodate up to a total of 1,061 acre-feet of pre-Compact storage in McClure and Nichols Reservoirs combined.

Month-end gage height, in feet, and contents, in acre-feet

Date	Gage height	Contents	Change in contents	Pre-Compact water	Transmountain water
December 31, 2013	7,876.11	2,530	-	961	1,569
January 31, 2014	7,875.75	2,510	-20	941	1,569
February 28	7,875.26	2,470	-40	901	1,569
March 31	7,872.61	2,290	-180	721	1,569
April 30	7,858.46	1,420	-870	0	1,420
May 31	7,856.22	1,300	-120	199	1,101
June 30	7,840.89	675	-625	0	675
July 31	7,836.47	0	-675	0	0
August 31	7,800.00	0	0	0	0
September 30	0	0	0	0	0
October 31	0	0	0	0	0
November 30	0	0	0	0	0
December 31, 2014	0	0	+2530	0	0
Calendar year 2014	-	-	-2530	-	-

Nichols Reservoir. – Water-stage recorder, lat 35°41'24", long 105°52'46", in SE1/4NE1/4 sec. 21, T. 17 N., R. 10 E., on Santa Fe River. Completed in 1942; capacity, 685 acre-ft at gage height 167.0 feet (crest of spillway), dead storage, 14 acre-ft at gage height 121.1 feet. Datum of gage is 7,313.2 feet above National Geodetic Vertical Datum of 1929.

Water is for municipal use in Santa Fe. Storage includes both Rio Grande water and transmountain water by exchange.

Capacity may include pre-Compact storage such that total pre-Compact storage in McClure and Nichols Reservoirs combined does not exceed 1,061 acre-ft.

Month-end gage height, in feet, and contents, in acre-feet

Date	Gage height	Contents	Change in contents	Pre-Compact water	Transmountain water
December 31, 2013	0	0	-	0	0
January 31, 2014	0	0	0	0	0
February 28	0	0	0	0	0
March 31	0	0	0	0	0
April 30	0	0	0	0	0
May 31	7,450.62	49	+49	0	49
June 30	7,471.76	302	+253	0	302
July 31	7,478.21	435	+133	22	413
August 31	7,476.81	406	-29	32	374
September 30	7,471.15	295	-111	0	295
October 31	7,476.04	390	+95	113	277
November 30	-	399	+9	122	277
December 31, 2014	7,478.33	443	+44	166	277
Calendar year 2014	-	-	+443	-	-

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(constructed or enlarged since 1929)

Cochiti Lake. – Water-stage recorder with satellite telemetry, lat 35°37'01", long 106°18'58", in NW1/4SW1/4 sec. 16, T. 16 N., R. 6 E., in Pueblo de Cochiti Grant, on Rio Grande. Completed in 1975; capacity 491,259 acre-ft at elevation 5,450.0 ft (crest of service spillway); zero storage at elevation 5,255.0 from 1998 survey. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). A 50,000 acre-foot permanent pool was authorized by Public Law 88-293, 88th Congress, March 26, 1964. Reservoir is operated by Corps of Engineers for flood control, sediment storage, and recreation. Storage began Nov. 12, 1973.

Month-end elevation, in feet, and contents, in acre-feet

Date	Elevation	Contents	Change in contents	Transmountain water
December 31, 2013	5,343.38	46,610	-	46,684
January 31, 2014	5,345.03	48,668	+2058	48,141
February 28	5,345.35	49,091	+423	48,981
March 31	5,345.06	48,707	-384	48,909
April 30	5,345.95	49,906	+1199	48,482
May 31	5,345.39	49,145	-761	48,045
June 30	5,344.15	47,544	-1,601	47,437
July 31	5,344.99	48,616	+1072	47,274
August 31	5,344.29	47,719	-897	46,976
September 30	5,343.86	47,187	-532	46,592
October 31	5,343.61	46,884	-303	46,326
November 30	5,342.78	45,911	-973	46,181
December 31, 2014	5,342.66	45,774	-137	46,136
Calendar year 2014	-	-	-836	-

Galisteo Reservoir. – Water-stage recorder above elevation 5,500.3 ft, nonrecording below, lat 35°27'44", long 106°12'30", in NW1/4 sec. 9, T. 14 N., R. 7 E., on Galisteo Creek. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Storage records begin in October 1970. Capacity 88,990 acre-ft at elevation 5,608.0 ft (crest of spillway). No dead storage. Reservoir is operated by Corps of Engineers for flood control and sediment storage.

Month-end contents, in acre-feet

Calendar Year 2014

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Cal. Yr.
Contents	0	0	0	0	0	0	1590	0	0	0	0	0	1590
Change	0	0	0	0	0	0	+1590	-1590	0	0	0	0	0

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(constructed or enlarged since 1929)

Jemez Canyon Reservoir. – Water-stage recorder, lat 35°23'40", long 106°32'50", in SW1/4SW1/4 sec. 32, T. 14 N., R. 4 E., on Jemez River. Completed in 1953; capacity, 259,423 acre-ft at elevation 5,271.20 ft. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Maximum controlled capacity at elevation 5,232.0 ft (floor of spillway) is 97,425 acre-ft by 1998 survey. Reservoir is operated by Corps of Engineers for flood control and sediment storage. A sediment pool of about 2,000 acre-ft of transmountain water has been maintained since August 1979.

Month-end elevation, in feet, and contents, in acre-feet

Date	Elevation	Contents	Change in contents	Transmountain water
December 31, 2013	5,155.00	0	-	0
January 31, 2014	5,155.00	0	0	0
February 29	5,155.00	0	0	0
March 31	5,155.00	0	0	0
April 30	5,155.00	0	0	0
May 31	5,158.06	128	+128	0
June 30	5,155.00	0	-128	0
July 31	5,155.00	0	0	0
August 31	5,155.00	0	0	0
September 30	5,155.00	0	0	0
October 31	5,155.00	0	0	0
November 30	5,155.00	0	0	0
December 31, 2014	5,155.00	0	0	0
Calendar year 2014	-	-	0	-

Acoma Reservoir. – Staff gage in SE1/4 sec. 29, T. 10 N., R. 7 W., on San Fidel Arroyo; water for reservoir is diverted from Rio San Jose. Completed in 1938; original capacity, 850 acre-ft; present capacity 650 acre-ft on basis of 1956 sediment survey. Water is used for irrigation on Acoma Indian Reservation. Storage omitted from accounting by action of Commission on March 23, 2000.

Month-end contents, in acre-feet

Calendar Year 2014

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Cal. Yr.
Contents	-	-	-	-	-	-	-	-	-	-	-	-	-
Change	-	-	-	-	-	-	-	-	-	-	-	-	-

Seama Reservoir. – In sec. 36, T. 10 N., R. 7 W., off channel from Rio San Jose. Completed in October 1980; capacity approximately 400 acre-ft. Water is used for irrigation on Laguna Indian Reservation.

No storage during 2014.

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(project storage)

Elephant Butte Reservoir. – Water-stage recorder, lat 33°09'15", long 107°11'28", in NW1/4 sec. 30, T. 13 S., R. 3 W., on Rio Grande. Storage began Jan. 6, 1915; capacity, 2,023,400 acre-ft at gage height 4,407.0 ft (crest of spillway), by survey of 1999 with flood control storage reservation of 50,000 acre-ft from April through September and 25,000 acre-ft from October through March in accordance with Sept. 9, 1998 resolution of the Rio Grande Compact Commission. Datum of gage is 43.3 ft above National Geodetic Vertical Datum of 1929. Water is used for power development and irrigation in New Mexico and Texas. Records furnished by Bureau of Reclamation. Delivery of transmountain water for minimum recreation pool was initiated in December 1975. Beginning Jan. 1, 1977 gage readings are midnight readings.

Month-end gage height, in feet, and contents, in acre-feet

Date	Gage Height	Contents	Change in contents	Transmountain water
December 31, 2013	4,320.83	279,060	-	17,481
January 31, 2014	4,324.26	312,279	+33,219	17,401
February 29	4,327.04	340,567	+28,288	17,294
March 31	4,329.04	361,672	+21,105	17,152
April 30	4,329.22	363,603	+1,931	16,948
May 31	4,329.18	363,174	-429	25,232
June 30	4,314.80	225,985	-137,189	24,628
July 31	4,301.51	133,865	-92,120	24,215
August 31	4,304.76	154,007	+20,142	23,920
September 30	4,307.51	172,132	+18,125	23,769
October 31	4,309.17	183,553	+11,421	23,578
November 30	4,313.12	212,607	+29,054	12,058
December 31, 2014	4,318.36	256,371	+43,764	3,566
Calendar year 2014	-	-	-22,689	-

Caballo Reservoir. – Water-stage recorder, lat 32°53'47", long 107°17'30", in SE1/4SW1/4 sec. 19, T. 16 S., R. 4 W., on Rio Grande. Storage began Feb. 8, 1938; capacity, 326,700 acre-ft (by 1999 resurvey), at gage height 4,182.0 ft (above which spillway gates open automatically). Datum of gage is 43.3 ft above National Geodetic Vertical Datum of 1929.

Month-end gage height, in feet, and contents, in acre-feet

Date	Gage height	Contents	Change in contents
December 31, 2013	4,143.62	39,740	-
January 31, 2014	4,143.76	40,216	+476
February 28	4,143.84	40,487	+271
March 31	4,143.67	39,913	-574
April 30	4,143.30	38,682	-1,231
May 31	4,139.20	26,786	-11,896
June 30	4,140.64	30,608	+3822
July 31	4,140.99	31,593	+985
August 31	4,137.34	22,278	-9,315
September 30	4,140.81	31,084	+8806
October 31	4,140.86	31,225	+141
November 30	4,141.01	31,650	+425
December 31, 2014	4,141.28	32,427	+777
Calendar year 2014	-	-	-7,313

STORAGE IN RESERVOIRS

Reservoirs in Rio Grande Basin in New Mexico
(project storage)

Project storage. – The combined total storage in Elephant Butte and Caballo Reservoirs.

Month-end contents, in acre-feet

Date	Contents	Change in contents
December 31, 2013	318,800	-
January 31, 2014	352,495	+33695
February 29	381,054	+28559
March 31	401,585	+20531
April 30	402,285	+700
May 31	389,960	-12,325
June 30	256,593	-133,367
July 31	165,458	-91,135
August 31	176,285	+10827
September 30	203,216	+26931
October 31	214,778	+11562
November 30	244,257	+29479
December 31, 2014	288,798	+44541
Calendar year 2014		-30,002

NOTE.-- Values of combined contents may not agree with sum of individual values because of rounding.

TRANSMOUNTAIN DIVERSIONS

Pine River - Weminuche Pass ditch (Fuchs ditch).-- Water-stage recorder and 3-ft Parshall flume in sec. 33, T. 40 N., R. 4 W., at Weminuche Pass in Colorado. Diversion is from North Fork Los Pinos River in San Juan River Basin into Weminuche Creek in Rio Grande Basin. Second enlargement was completed in 1936. Diversion for irrigation is from Rio Grande above the Del Norte gaging station.

Weminuche Pass ditch (Raber-Lohr ditch).-- Water-stage recorder and 4-ft rectangular flume in sec. 33, T. 40 N., R. 4 W., at Weminuche Pass in Colorado. Diversion is from Rincon la Vaca Creek in San Juan River Basin into Weminuche Creek in Rio Grande Basin. Second enlargement was completed in 1936. Diversion for irrigation is from Rio Grande above the Del Norte gaging station.

Williams Creek - Squaw Pass ditch.-- Water-stage recorder and 2-ft Parshall flume in sec. 21, T. 39 N., R. 3 W., at Squaw Pass in Colorado. Diversion is from Williams Creek in San Juan River Basin into Squaw Creek in Rio Grande Basin. Constructed in 1938. Diversion for irrigation is from Rio Grande below Del Norte gaging station.

Tabor ditch.-- Water-stage recorder and 3-ft Parshall flume in sec. 35, T. 43 N., R. 3 W., at Spring Creek Pass in Colorado. Diversion is from Cebolla Creek in Gunnison River Basin into tributary of Clear Creek in Rio Grande Basin. Completed in 1910 or 1911. Diversion for irrigation is from Rio Grande below Del Norte gaging station.

Don La Font No. 1 & 2 ditches (Piedra Pass ditch).-- Water-stage recorder and 2-ft Parshall flume in sec. 4, T. 38 N., R. 1 W., at Piedra Pass in Colorado. Diversion is from tributaries of Piedra River in San Juan River Basin to South River in Rio Grande Basin. Original ditch completed in 1938, first enlargement completed in 1940. Water is imported by Colorado Game and Fish Department, beginning in 1959, to offset losses from fish culture reservoirs.

Treasure Pass diversion ditch.-- Water-stage recorder and 2-ft Parshall flume in sec. 31, T. 38 N., R. 2 E., at Wolf Creek Pass in Colorado. Diversion is from Wolf Creek in San Juan River Basin to a tributary of South Fork Rio Grande. Completed in 1923 or 1924. Water is diverted for irrigation from Rio Grande above the Del Norte gaging station, beginning in 1959. Prior to 1959 it was diverted below gaging station.

Azotea tunnel.-- Water-stage recorder and 10-ft Parshall flume, lat 36°51'12", long 106°40'18", at south portal of Azotea tunnel, San Juan-Chama Project. Diversion is from Rio Blanco, Little Navajo River, and Navajo River in Colorado and discharge is into Azotea in New Mexico. Construction completed in 1970.

Imported quantities, in acre-feet, 2014

Month	Pine River- Weminuche Pass ditch	Weminuche Pass ditch	Williams Creek- Squaw Pass ditch	Tabor ditch	Don La Font ditches	Treasure Pass diversion ditch	Azotea tunnel
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	227
March	0	0	0	0	0	0	1,984
April	0	0	0	0	0	0	13,808
May	110	458	59	180	24	26	20,251
June	265	737	218	443	192	206	18,851
July	0	0	26	138	10	0	1,549
August	0	0	24	81	3	1	788
September	5	0	57	54	0	5	902
October	166	223	32	45	0	6	1,334
November	0	0	0	0	0	0	335
December	0	0	0	0	0	0	0
Calendar year	546	1418	416	941	229	244	60,029

EVAPORATION AND PRECIPITATION

The last paragraph of Article VI of the Compact states, in part, --- "such credits and debits shall be reduced annually to compensate for evaporation losses in the proportion that such credits or debits bear to the total amount of water in such reservoirs during the year."

To provide the data needed for the computation of such evaporation losses, the Commission has encouraged the establishment and operation of evaporation stations near each major reservoir in the basin and at other selected locations.

Evaporation and other climatological data collected at the several stations in Colorado and New Mexico are tabulated on the next page. At some of the stations, it was not possible to obtain evaporation records throughout the winter period.

The measurements of evaporation were made in accordance with standard practice for the type of pan in use. Measurements of precipitation were made in standard 8-inch rain gages, which were supplemented at some of the stations by recording rain gages.

Records for the evaporation stations at the State University, Elephant Butte Dam, and El Vado Dam antedated the creation of the Commission; the stations at Abiquiu Dam, Cochiti Dam, and Jemez Canyon Dam were established by the Corps of Engineers. All others were established at the request of the Commission.

The Rio Grande Compact Commission gratefully acknowledges the cooperation of the National Oceanic and Atmospheric Administration, U.S. Army Corps of Engineers, and U.S. Bureau of Reclamation for furnishing the climatological records contained in this report.

Alamosa Airport--Lat 37°27', long 105°52', in Alamosa County at airport near Alamosa, Colo. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 7,536 ft.

Platoro Dam--Lat 37°21', long 106°30', in Conejos County near Platoro, Colo. Standard class A pan, anemometer, maximum and minimum thermometers, fan type psychrometer, standard 8-inch and recording rain gages at elevation 9,826 ft.

Heron Dam--Lat 36°40', long 106°42', in Rio Arriba County about 4 mi. northeast of Heron Dam near Tierra Amarilla, N. Mex. Standard class A pan, maximum and minimum thermometers, and standard 8-inch rain gage at elevation 7,310 ft.

El Vado Dam--Lat 36°36', long 106°44', in Rio Arriba County at El Vado Dam near Tierra Amarilla, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 6,750 ft.

Abiquiu Dam--Lat 36°14', long 106°26', in Rio Arriba County at Abiquiu Dam near Abiquiu, N. Mex. Standard class A pan, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 6,380 ft.

Nambe Falls Dam--Lat 35°51', long 105°54', in Santa Fe County at Nambe Falls Dam, N. Mex. Standard class A pan, maximum and minimum thermometers, recording thermograph, standard 8-inch and recording rain gages at elevation 6,840 ft.

Cochiti Dam--Lat 35°38', long 106°19', in Sandoval County at operations building, at Cochiti Dam, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 5,560 ft.

Jemez Canyon Dam--Lat 35°23', long 106°32', in Sandoval County at Jemez Canyon Dam, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 5,388 ft.

Elephant Butte Dam--Lat 33°09', long 107°11', in Sierra County at Elephant Butte Dam, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, and standard 8-inch rain gage at elevation 4,576 ft.

Caballo Dam--Lat 32°54', long 107°18', in Sierra County at Caballo Dam, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 4,190 ft.

New Mexico State University--Lat 32°17', long 106°45', in Doña Ana County at University Park, N. Mex. Standard class A pan, anemometer, maximum and minimum thermometers, standard 8-inch and recording rain gages at elevation 3,881 ft.

EVAPORATION AND PRECIPITATION

Evaporation and precipitation, in inches
2014

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Annual
Alamosa Airport	Evap.	-	-	-	-	-	-	-	-	-	-	-	-	-
	Precip.	0.07	0.05	0.40	1.06	0.23	0.02	1.52	0.53	0.41	0.70	0.34	0.21	5.54
Platoro Dam	Evap.	-	-	-	-	1.89	8.84	6.78	4.98	4.20	4.46	-	-	-
	Precip.	-	-	-	-	0.91	0.79	4.21	1.50	2.39	0.87	-	-	-
Heron Dam	Evap.	-	-	-	5.62	7.02	11.03	9.10	7.61	6.63	4.81	-	-	-
	Precip.	0.05	0.32	0.61	0.44	1.14	0.03	2.91	0.87	1.05	1.08	0.65	1.11	10.26
El Vado Dam	Evap.	-	-	-	6.14	8.12	11.46	9.39	8.1	6.87	4.51	-	-	-
	Precip.	0.05	0.29	0.44	0.64	0.82	0.13	2.38	1.16	1.24	1.00	0.60	0.91	9.66
Abiquiu Dam	Evap.	2.47	3.59	6.13	7.46	10.01	13.17	10.11	8.53	8.2	5.39	3.61	2.22	80.89
	Precip.	0.01	0.06	0.77	0.32	0.74	0.65	3.07	1.11	0.16	0.58	0.69	0.84	9.00
Nambe Canyon Dam	Evap.	-	-	-	6.1	9.37	13.08	9.3	8.3	7.09	4.95	-	-	-
	Precip.	0.00	0.27	0.47	0.12	1.23	0.58	2.86	0.96	1.45	0.77	0.84	1.36	10.91
Cochiti Dam	Evap.	2.79	4.14	7.05	6.95	7.88	10.91	7.66	6.85	7.16	5.26	3.59	2.83	73.07
	Precip.	0.00	0.23	0.42	0.08	0.50	0.53	4.25	1.25	0.29	0.33	0.54	0.89	9.31
Jemez Canyon Dam	Evap.	3.1	4.42	7.66	9.53	12.62	14.26	13.68	11.84	9.66	6.02	4.25	3.14	100.18
	Precip.	0.00	0.36	0.14	0.02	0.38	0.00	2.95	0.49	0.22	0.17	0.27	1.24	6.24
Elephant Butte Dam	Evap.	4.68	6.74	9.64	13.95	14.52	20.55	15.69	11.08	9.78	7.77	5.65	3.72	123.77
	Precip.	0.00	0.00	0.20	0.09	0.17	0.00	1.89	1.87	3.18	0.55	0.50	0.06	8.51
Caballo Dam	Evap.	-	7.26	19.86	30.55	28.78	28.27	19.67	10.48	11.74	12.74	5.08	6.81	-
	Precip.	-	0.00	0.05	0.94	0.11	0.02	2.41	2.94	6.55	0.50	0.16	0.14	-
State University	Evap.	5.40	6.47	8.95	14.02	13.29	14.43	12.33	8.62	7.41	6.57	4.64	3.44	105.57
	Precip.	0.00	0.00	0.33	0.00	0.00	0.04	1.07	2.11	3.23	0.77	0.39	0.32	8.26

RIO GRANDE COMPACT

The State of Colorado, the State of New Mexico, and the State of Texas, desiring to remove all causes of present and future controversy among these States and between citizens of one of these States and citizens of another State with respect to the use of the waters of the Rio Grande above Fort Quitman, Texas, and being moved by considerations of interstate comity, and for the purpose of effecting an equitable apportionment of such waters, have resolved to conclude a Compact for the attainment of these purposes, and to that end, through their respective Governors, have named as their respective Commissioners:

For the State of Colorado	M. C. Hinderlider
For the State of New Mexico	Thomas M. McClure
For the State of Texas	Frank B. Clayton

who, after negotiations participated in by S. O. Harper, appointed by the President as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I

(a) The State of Colorado, the State of New Mexico, the State of Texas, and the United States of America, are hereinafter designated "Colorado," "New Mexico," "Texas," and the "United States," respectively.

(b) "The Commission" means the agency created by this Compact for the administration thereof.

(c) The term "Rio Grande Basin" means all of the territory drained by the Rio Grande and its tributaries in Colorado, in New Mexico, and in Texas above Fort Quitman, including the Closed Basin in Colorado.

(d) The "Closed Basin" means that part of the Rio Grande Basin in Colorado where the streams drain into the San Luis Lakes and adjacent territory, and do not normally contribute to the flow of the Rio Grande.

(e) The term "tributary" means any stream which naturally contributes to the flow of the Rio Grande.

(f) "Transmountain Diversion" is water imported into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, exclusive of the Closed Basin.

(g) "Annual Debits" are the amounts by which actual deliveries in any calendar year fall below scheduled deliveries.

(h) "Annual Credits" are the amounts by which actual deliveries in any calendar year exceed scheduled deliveries.

(i) "Accrued Debits" are the amounts by which the sum of all annual debits exceeds the sum of all annual credits over any common period of time.

(j) "Accrued Credits" are the amounts by which the sum of all annual credits exceeds the sum of all annual debits over any common period of time.

(k) "Project Storage" is the combined capacity of Elephant Butte Reservoir and all other reservoirs actually available for the storage of usable water below Elephant Butte and above the first diversion to lands of the Rio Grande Project, but not more than a total of 2,638,860 acre feet.

RIO GRANDE COMPACT

(l) "Usable Water" is all water, exclusive of credit water, which is in project storage and which is available for release in accordance with irrigation demands, including deliveries to Mexico.

(m) "Credit Water" is that amount of water in project storage which is equal to the accrued credit of Colorado, or New Mexico, or both.

(n) "Unfilled Capacity" is the difference between the total physical capacity of project storage and the amount of usable water then in storage.

(o) "Actual Release" is the amount of usable water released in any calendar year from the lowest reservoir comprising project storage.

(p) "Actual Spill" is all water which is actually spilled from Elephant Butte Reservoir, or is released therefrom for flood control, in excess of the current demand on project storage and which does not become usable water by storage in another reservoir; provided, that actual spill of usable water cannot occur until all credit water shall have been spilled.

(q) "Hypothetical Spill" is the time in any year at which usable water would have spilled from project storage if 790,000 acre feet had been released therefrom at rates proportional to the actual release in every year from the starting date to the end of the year in which hypothetical spill occurs; in computing hypothetical spill the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following the effective date of this Compact, and thereafter the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following each actual spill.

ARTICLE II

The Commission shall cause to be maintained and operated a stream gaging station equipped with an automatic water stage recorder at each of the following points, to-wit:

(a) On the Rio Grande near Del Norte above the principal points of diversion to the San Luis Valley;

(b) On the Conejos River near Mogote;

(c) On the Los Pinos River near Ortiz;

(d) On the San Antonio River at Ortiz;

(e) On the Conejos River at its mouths near Los Sauces;

(f) On the Rio Grande near Lobatos;

(g) On the Rio Chama below El Vado Reservoir;

(h) On the Rio Grande at Otowi Bridge near San Ildefonso;

(i) On the Rio Grande near San Acacia;

(j) On the Rio Grande at San Marcial;

(k) On the Rio Grande below Elephant Butte Reservoir;

(l) On the Rio Grande below Caballo Reservoir.

Similar gaging stations shall be maintained and operated below any other reservoir constructed after 1929, and at such other points as may be necessary for the securing of records required for the carrying out of the Compact; and automatic water stage recorders shall be maintained and operated on each of the reservoirs mentioned, and on all others constructed after 1929.

RIO GRANDE COMPACT

Such gaging stations shall be equipped, maintained and operated by the Commission directly or in cooperation with an appropriate Federal or State agency, and the equipment, method and frequency of measurement at such stations shall be such as to produce reliable records at all times. (Note: See Resolution of Commission printed elsewhere in this report.)

ARTICLE III

The obligation of Colorado to deliver water in the Rio Grande at the Colorado-New Mexico State Line, measured at or near Lobatos, in each calendar year, shall be ten thousand acre feet less than the sum of those quantities set forth in the two following tabulations of relationship, which correspond to the quantities at the upper index stations:

DISCHARGE OF CONEJOS RIVER

Quantities in thousands of acre feet

Conejos Index Supply (1)	Conejos River at Mouths (2)
100	0
150	20
200	45
250	75
300	109
350	147
400	188
450	232
500	278
550	326
600	376
650	426
700	476

Intermediate quantities shall be computed by proportional parts.

(1) Conejos Index Supply is the natural flow of Conejos River at the U.S.G.S. gaging station near Mogote during the calendar year, plus the natural flow of Los Pinos River at the U.S.G.S. gaging station near Ortiz and the natural flow of San Antonio River at the U.S.G.S. gaging station at Ortiz, both during the months of April to October, inclusive.

(2) Conejos River at Mouths is the combined discharge of branches of this river at the U.S.G.S. gaging stations near Los Sauces during the calendar year.

DISCHARGE OF RIO GRANDE EXCLUSIVE OF CONEJOS RIVER

Quantities in thousands of acre feet

Rio Grande at Del Norte (3)	Rio Grande at Lobatos less Conejos at Mouths (4)
200	60
250	65
300	75
350	86
400	98
450	112
500	127
550	144
600	162

RIO GRANDE COMPACT
DISCHARGE OF RIO GRANDE EXCLUSIVE OF CONEJOS RIVER--Con.
Quantities in thousands of acre feet

Rio Grande at Del Norte (3)	Rio Grande at Lobatos less Conejos at Mouths (4)
650	182
700	204
750	229
800	257
850	292
900	335
950	380
1,000	430
1,100	540
1,200	640
1,300	740
1,400	840

Intermediate quantities shall be computed by proportional parts.

(3) Rio Grande at Del Norte is the recorded flow of the Rio Grande at the U.S.G.S. gaging station near Del Norte during the calendar year (measured above all principal points of diversion to San Luis Valley) corrected for the operation of reservoirs constructed after 1937.

(4) Rio Grande at Lobatos less Conejos at Mouths is the total flow of the Rio Grande at the U.S.G.S. gaging station near Lobatos, less the discharge of Conejos River at its Mouths, during the calendar year.

The application of these schedules shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) any new or increased depletion of the runoff above inflow index gaging stations; and (c) any transmountain diversions into the drainage basin of the Rio Grande above Lobatos.

In event any works are constructed after 1937 for the purpose of delivering water into the Rio Grande from the Closed Basin, Colorado shall not be credited with the amount of such water delivered, unless the proportion of sodium ions shall be less than forty-five percent of the total positive ions in that water when the total dissolved solids in such water exceeds three hundred fifty parts per million.

ARTICLE IV

The obligation of New Mexico to deliver water in the Rio Grande at San Marcial, during each calendar year, exclusive of the months of July, August, and September, shall be that quantity set forth in the following tabulation of relationship, which corresponds to the quantity at the upper index station:

RIO GRANDE COMPACT
DISCHARGE OF RIO GRANDE AT OTOWI BRIDGE AND AT SAN MARCIAL
EXCLUSIVE OF JULY, AUGUST AND SEPTEMBER
Quantities in thousands of acre feet

Otowi Index Supply (5)	San Marcial Index Supply (6)
100	0
200	65
300	141
400	219
500	300
600	383
700	469
800	557
900	648
1,000	742
1,100	839
1,200	939
1,300	1,042
1,400	1,148
1,500	1,257
1,600	1,370
1,700	1,489
1,800	1,608
1,900	1,730
2,000	1,856
2,100	1,985
2,200	2,117
2,300	2,253

Intermediate quantities shall be computed by proportional parts.

(5) The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San Ildefonso (formerly station near Buckman) during the calendar year, exclusive of the flow during the months of July, August and September, corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.

(6) San Marcial Index Supply is the recorded flow of the Rio Grande at the gaging station at San Marcial during the calendar year exclusive of the flow during the months of July, August and September.

The application of this schedule shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) depletion after 1929 in New Mexico at any time of the year of the natural runoff at Otowi Bridge; (c) depletion of the runoff during July, August and September of tributaries between Otowi Bridge and San Marcial, by works constructed after 1937; and (d) any transmountain diversions into the Rio Grande between Lobatos and San Marcial.

Concurrent records shall be kept of the flow of the Rio Grande at San Marcial, near San Acacia, and of the release from Elephant Butte Reservoir to the end that the records at these three stations may be correlated. (Note: See Resolution of Commission printed elsewhere in this report.)

RIO GRANDE COMPACT

ARTICLE V

If at any time it should be the unanimous finding and determination of the Commission that because of changed physical conditions, or for any other reason, reliable records are not obtainable, or cannot be obtained, at any of the stream gaging stations herein referred to, such stations may, with the unanimous approval of the Commission, be abandoned, and with such approval another station, or other stations, shall be established and new measurements shall be substituted which, in the unanimous opinion of the Commission, will result in substantially the same results so far as the rights and obligations to deliver water are concerned, as would have existed if such substitution of stations and measurements had not been so made. (Note: See Resolution of Commission printed elsewhere in this report.)

ARTICLE VI

Commencing with the year following the effective date of this Compact, all credits and debits of Colorado and New Mexico shall be computed for each calendar year; provided, that in a year of actual spill no annual credits nor annual debits shall be computed for that year.

In the case of Colorado, no annual debit nor accrued debit shall exceed 100,000 acre feet, except as either or both may be caused by holdover storage of water in reservoirs constructed after 1937 in the drainage basin of the Rio Grande above Lobatos. Within the physical limitations of storage capacity in such reservoirs, Colorado shall retain water in storage at all times to the extent of its accrued debit.

In the case of New Mexico, the accrued debit shall not exceed 200,000 acre feet at any time, except as such debit may be caused by holdover storage of water in reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and San Marcial. Within the physical limitations of storage capacity in such reservoirs, New Mexico shall retain water in storage at all times to the extent of its accrued debit. In computing the magnitude of accrued credits or debits, New Mexico shall not be charged with any greater debit in any one year than the sum of 150,000 acre-feet and all gains in the quantity of water in storage in such year.

The Commission by unanimous action may authorize the release from storage of any amount of water which is then being held in storage by reason of accrued debits of Colorado or New Mexico; provided, that such water shall be replaced at the first opportunity thereafter.

In computing the amount of accrued credits and accrued debits of Colorado or New Mexico, any annual credits in excess of 150,000 acre feet shall be taken as equal to that amount.

In any year in which actual spill occurs, the accrued credits of Colorado, or New Mexico, or both, at the beginning of the year shall be reduced in proportion to their respective credits by the amount of such actual spill; provided that the amount of actual spill shall be deemed to be increased by the aggregate gain in the amount of water in storage, prior to the time of spill, in reservoirs above San Marcial constructed after 1929; provided, further, that if the Commissioners for the States having accrued credits authorize the release of part, or all, of such credits in advance of spill, the amount so released shall be deemed to constitute actual spill.

In any year in which there is actual spill of usable water, or at the time of hypothetical spill thereof, all accrued debits of Colorado, or New Mexico, or both, at the beginning of the year shall be cancelled.

RIO GRANDE COMPACT

In any year in which the aggregate of accrued debits of Colorado and New Mexico exceeds the minimum unfilled capacity of project storage, such debits shall be reduced proportionally to an aggregate amount equal to such minimum unfilled capacity.

To the extent that accrued credits are impounded in reservoirs between San Marcial and Courchesne, and to the extent that accrued debits are impounded in reservoirs above San Marcial, such credits and debits shall be reduced annually to compensate for evaporation losses in the proportion that such credits or debits bore to the total amount of water in such reservoirs during the year.

ARTICLE VII

Neither Colorado nor New Mexico shall increase the amount of water in storage in reservoirs constructed after 1929 whenever there is less than 400,000 acre feet of usable water in project storage; provided, that if the actual releases of usable water from the beginning of the calendar year following the effective date of this Compact, or from the beginning of the calendar year following actual spill, have aggregated more than an average of 790,000 acre feet per annum, the time at which such minimum stage is reached shall be adjusted to compensate for the difference between the total actual release and releases at such average rate; provided, further, that Colorado, or New Mexico, or both, may relinquish accrued credits at any time, and Texas may accept such relinquished water, and in such event the state, or states, so relinquishing shall be entitled to store water in the amount of the water so relinquished.

ARTICLE VIII

During the month of January of any year the Commissioner for Texas may demand of Colorado and New Mexico, and the Commissioner for New Mexico may demand of Colorado, the release of water from storage reservoirs constructed after 1929 to the amount of the accrued debits of Colorado and New Mexico, respectively, and such releases shall be made by each at the greatest rate practicable under the conditions then prevailing, and in proportion to the total debit of each, and in amounts, limited by their accrued debits, sufficient to bring the quantity of usable water in project storage to 600,000 acre feet by March first and to maintain this quantity in storage until April thirtieth, to the end that a normal release of 790,000 acre feet may be made from project storage in that year.

ARTICLE IX

Colorado agrees with New Mexico that in event the United States or the State of New Mexico decides to construct the necessary works for diverting the waters of the San Juan River, or any of its tributaries, into the Rio Grande, Colorado hereby consents to the construction of said works and the diversion of waters from the San Juan River, or the tributaries thereof, into the Rio Grande in New Mexico, provided the present and prospective uses of water in Colorado by other diversions from the San Juan River, or its tributaries, are protected.

ARTICLE X

In the event water from another drainage basin shall be imported into the Rio Grande Basin by the United States or Colorado or New Mexico, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in the application of the schedules.

ARTICLE XI

New Mexico and Texas agree that upon the effective date of this Compact all controversies between said States relative to the quantity or quality of the water of the Rio Grande are composed and settled; however, nothing herein shall be interpreted to prevent

RIO GRANDE COMPACT

recourse by a signatory state to the Supreme Court of the United States for redress should the character or quality of the water, at the point of delivery, be changed hereafter by one signatory state to the injury of another. Nothing herein shall be construed as an admission by any signatory state that the use of water for irrigation causes increase of salinity for which the user is responsible in law.

ARTICLE XII

To administer the provisions of this Compact there shall be constituted a Commission composed of one representative from each state, to be known as the Rio Grande Compact Commission. The State Engineer of Colorado shall be ex-officio the Rio Grande Compact Commissioner for Colorado. The State Engineer of New Mexico shall be ex-officio the Rio Grande Compact Commissioner for New Mexico. The Rio Grande Compact Commissioner for Texas shall be appointed by the Governor of Texas. The President of the United States shall be requested to designate a representative of the United States to sit with such Commission, and such representative of the United States, if so designated by the President, shall act as Chairman of the Commission without vote.

The salaries and personal expenses of the Rio Grande Compact Commissioners for the three States shall be paid by their respective States, and all other expenses incident to the administration of this Compact, not borne by the United States, shall be borne equally by the three States.

In addition to the powers and duties hereinbefore specifically conferred upon such Commission, and the members thereof, the jurisdiction of such Commission shall extend only to the collection, correlation and presentation of factual data and the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, to the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection therewith, the Commission may employ such engineering and clerical aid as may be reasonably necessary within the limit of funds provided for that purpose by the respective States. Annual reports compiled for each calendar year shall be made by the Commission and transmitted to the Governors of the signatory States on or before March first following the year covered by the report. The Commission may, by unanimous action, adopt rules and regulations consistent with the provisions of this Compact to govern their proceedings.

The findings of the Commission shall not be conclusive in any court or tribunal which may be called upon to interpret or enforce this Compact.

ARTICLE XIII

At the expiration of every five-year period after the effective date of this Compact, the Commission may, by unanimous consent, review any provisions hereof which are not substantive in character and which do not affect the basic principles upon which the Compact is founded, and shall meet for the consideration of such questions on the request of any member of the Commission; provided, however, that the provisions hereof shall remain in full force and effect until changed and amended within the intent of the Compact by unanimous action of the Commissioners, and until any changes in this Compact are ratified by the legislatures of the respective states and consented to by the Congress, in the same manner as this Compact is required to be ratified to become effective.

ARTICLE XIV

The schedules herein contained and the quantities of water herein allocated shall never be increased nor diminished by reason of any increase or diminution in the delivery or loss of water to Mexico.

RIO GRANDE COMPACT

ARTICLE XV

The physical and other conditions characteristic of the Rio Grande and peculiar to the territory drained and served thereby, and to the development thereof, have actuated this Compact and none of the signatory states admits that any provisions herein contained establishes any general principle or precedent applicable to other interstate streams.

ARTICLE XVI

Nothing in this Compact shall be construed as affecting the obligations of the United States of America to Mexico under existing treaties, or to the Indian Tribes, or as impairing the rights of the Indian Tribes.

ARTICLE XVII

This Compact shall become effective when ratified by the legislatures of each of the signatory states and consented to by the Congress of the United States. Notice of ratification shall be given by the Governor of each state to the Governors of the other states and to the President of the United States, and the President of the United States is requested to give notice to the Governors of each of the signatory states of the consent of the Congress of the United States.

IN WITNESS WHEREOF, the Commissioners have signed this Compact in quadruplicate original, one of which shall be deposited in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each of the signatory States.

Done at the City of Santa Fe, in the State of New Mexico, on the 18th day of March, in the year of our Lord, One Thousand Nine Hundred and Thirty-eight.

(Sgd.) M. C. HINDERLIDER

(Sgd.) THOMAS M. McCLURE

(Sgd.) FRANK B. CLAYTON

APPROVED:

(Sgd.) S. O. HARPER

RATIFIED BY:

Colorado, February 21, 1939

New Mexico, March 1, 1939

Texas, March 1, 1939

Passed Congress as Public Act No. 96, 76th Congress,

Approved by the President May 31, 1939

RESOLUTION ADOPTED BY RIO GRANDE COMPACT COMMISSION
AT THE ANNUAL MEETING HELD AT EL PASO, TEXAS, FEBRUARY 22-24, 1948, CHANGING
GAGING STATIONS AND MEASUREMENTS OF
DELIVERIES BY NEW MEXICO

RESOLUTION

Whereas, at the Annual Meeting of the Rio Grande Compact Commission in the year 1945, the question was raised as to whether or not a schedule for delivery of water by New Mexico during the entire year could be worked out, and

Whereas, at said meeting the question was referred to the Engineering Advisers for their study, recommendations and report, and

Whereas, said Engineering Advisers have met, studied the problems and under date of February 24, 1947, did submit their Report, which said Report contains the findings of said Engineering Advisers and their recommendations, and

Whereas, the Compact Commission has examined said Report and finds that the matters and things therein found and recommended are proper and within the terms of the Rio Grande Compact, and

Whereas, the Commission has considered said Engineering Advisers' Report and all available evidence, information and material and is fully advised:

Now, Therefore, Be it Resolved:

The Commission finds as follows:

- (a) That because of change of physical conditions, reliable records of the amount of water passing San Marcial are no longer obtainable at the stream gaging station at San Marcial and that the same should be abandoned for Compact purposes.
- (b) That the need for concurrent records at San Marcial and San Acacia no longer exists and that the gaging station at San Acacia should be abandoned for Compact purposes.
- (c) That it is desirable and necessary that the obligations of New Mexico under the Compact to deliver water in the months of July, August, September, should be scheduled.
- (d) That the change in gaging stations and substitution of the new measurements as hereinafter set forth will result in substantially the same results so far as the rights and obligations to deliver water are concerned, and would have existed if such substitution of stations and measurements had not been so made.

Be it Further Resolved:

That the following measurements and schedule thereof shall be substituted for the measurements and schedule thereof as now set forth in Article IV of the Compact:

"The obligation of New Mexico to deliver water in the Rio Grande into Elephant Butte Reservoir during each calendar year shall be measured by that quantity set forth in the following tabulation of relationship which corresponds to the quantity at the upper index station:

RIO GRANDE COMPACT COMMISSION REPORT
DISCHARGE OF RIO GRANDE AT OTOWI BRIDGE AND ELEPHANT BUTTE EFFECTIVE
SUPPLY

Quantities in thousands of acre-feet

Otowi Index Supply (5)	Elephant Butte Effective Index Supply (6)
100	57
200	114
300	171
400	228
500	286
600	345
700	406
800	471
900	542
1,000	621
1,100	707
1,200	800
1,300	897
1,400	996
1,500	1,095
1,600	1,195
1,700	1,295
1,800	1,395
1,900	1,495
2,000	1,595
2,100	1,695
2,200	1,795
2,300	1,895
2,400	1,995
2,500	2,095
2,600	2,195
2,700	2,295
2,800	2,395
2,900	2,495
3,000	2,595

Intermediate quantities shall be computed by proportional parts.

- (5) The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San ildefonso (formerly station near Buckman) during the calendar year, corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.
- (6) Elephant Butte Effective Index Supply is the recorded flow of the Rio Grande at the gaging station below Elephant Butte Dam during the calendar year plus the net gain in storage in Elephant Butte Reservoir during the same year or minus the net loss in storage in said reservoir, as the case may be.

RIO GRANDE COMPACT

The application of this schedule shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) depletion after 1929 in New Mexico of the natural runoff at Otowi Bridge; and (c) any transmountain diversions into the Rio Grande between Lobatos and Elephant Butte Reservoir.”

Be it Further Resolved:

That the gaging stations at San Acacia and San Marcial be, and the same are hereby abandoned for Compact purposes.

Be it Further Resolved:

That this Resolution has been passed unanimously and shall be effective January 1, 1949, if within 120 days from this date the Commissioner for each State shall have received from the Attorney General of the State represented by him, an opinion approving this Resolution, and shall have so advised the Chairman of the Commission, otherwise, to be of no force and effect.

(Note: The following paragraph appears in the Minutes of the Annual Meeting of the Commission held at Denver, Colorado, February 14-16, 1949.

“The Chairman announced that he had received, pursuant to the Resolution adopted by the Commission at the Ninth Annual Meeting on February 24, 1948, opinions from the Attorneys General of Colorado, New Mexico and Texas that the substitution of stations and measurements of deliveries by New Mexico set forth in said resolution was within the powers of the Commission”).

RULES AND REGULATIONS FOR ADMINISTRATION OF
THE RIO GRANDE COMPACT

A Compact, known as the Rio Grande Compact, between the States of Colorado, New Mexico and Texas, having become effective on May 31, 1939 by consent of the Congress of the United States, which equitably apportions the waters of the Rio Grande above Fort Quitman and permits each State to develop its water resources at will, subject only to its obligations to deliver water in accordance with the schedules set forth in the Compact, the following Rules and Regulations have been adopted for its administration by the Rio Grande Compact Commission; to be and remain in force and effect only so long as the same may be satisfactory to each and all members of the Commission, and provided always that on the objection of any member of the Commission, in writing, to the remaining two members of the Commission after a period of sixty days from the date of such objection, the sentence, paragraph or any portion or all of these rules to which any such objection shall be made, shall stand abrogated and shall thereafter have no further force and effect; it being the intent and purpose of the Commission to permit these rules to obtain and be effective only so long as the same may be satisfactory to each and all of the Commissioners.

GAGING STATIONS /1

Responsibility for the equipping, maintenance and operation of the stream gaging stations and reservoir gaging stations required by the provisions of Article II of the Compact shall be divided among the signatory States as follows:

(a) Gaging stations on streams and reservoirs in the Rio Grande Basin above the Colorado-New Mexico boundary shall be equipped, maintained, and operated by Colorado in cooperation with the U.S. Geological Survey.

(b) Gaging stations on streams and reservoirs in the Rio Grande Basin below Lobatos and above Caballo Reservoir shall be equipped, maintained and operated by New Mexico in cooperation with the U.S. Geological Survey to the extent that such stations are not maintained and operated by some other Federal agency.

(c) Gaging stations on Elephant Butte Reservoir and on Caballo Reservoir, and the stream gaging stations on the Rio Grande below those reservoirs shall be equipped, maintained and operated by or on behalf of Texas through the agency of the U.S. Bureau of Reclamation.

The equipment, method and frequency of measurements at each gaging station shall be sufficient to obtain records at least equal in accuracy to those classified as "good" by the U.S. Geological Survey. Water-stage recorders on the reservoirs specifically named in Article II of the Compact shall have sufficient range below maximum reservoir level to record major fluctuations in storage. Staff gages may be used to determine fluctuations below the range of the water-stage recorders on these and other large reservoirs, and staff gages may be used upon approval of the Commission in lieu of water-stage recorders on small reservoirs, provided that the frequency of observation is sufficient in each case to establish any material changes in water levels in such reservoirs.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

RULES AND REGULATIONS

RESERVOIR CAPACITIES /1

Colorado shall file with the Commission a table of areas and capacities for each reservoir in the Rio Grande Basin above Lobatos constructed after 1937; New Mexico shall file with the Commission a table of areas and capacities for each reservoir in the Rio Grande Basin between Lobatos and San Marcial constructed after 1929; and Texas shall file with the Commission tables of areas and capacities for Elephant Butte Reservoir and for all other reservoirs actually available for the storage of water between Elephant Butte and the first diversion to lands under the Rio Grande Project.

Whenever it shall appear that any table of areas and capacities is in error by more than five per cent, the Commission shall use its best efforts to have a re-survey made and a corrected table of areas and capacities to be substituted as soon as practicable. To the end that the Elephant Butte effective supply may be computed accurately, the Commission shall use its best efforts to have the rate of accumulation and the place of deposition of silt in Elephant Butte Reservoir checked at least every three years.

ACTUAL SPILL /2, /3, /4, /6

(a) Water released from Elephant Butte in excess of Project requirements, which is currently passed through Caballo Reservoir, prior to the time of spill, shall be deemed to have been Usable Water released in anticipation of spill, or Credit Water if such release shall have been authorized.

(b) Excess releases from Elephant Butte Reservoir, as defined in (a) above, shall be added to the quantity of water actually in storage in that reservoir, and Actual Spill shall be deemed to have commenced when this sum equals the total capacity of that reservoir to the level of the uncontrolled spillway less capacity reserved for flood purposes, i.e., 1,999,600 acre-feet in the months of October through March inclusive, and 1,974,600 acre-feet in the months of April through September, inclusive, as determined from the 2009 area-capacity table or successor area-capacity tables and flood control storage reservation of 50,000 acre-feet from April through September and 25,000 acre-feet from October through March.

(c) All water actually spilled at Elephant Butte Reservoir, or released therefrom, in excess of Project requirements, which is currently passed through Caballo Reservoir, after the time of spill, shall be considered as Actual Spill, provided that the total quantity of water then in storage in Elephant Butte Reservoir exceeds the physical capacity of that reservoir at the level of the sill of the spillway gates, i.e. -1,830,000 acre-ft in 1942.

(d) Water released from Caballo Reservoir in excess of Project requirements and in excess of water currently released from Elephant Butte Reservoir, shall be deemed Usable Water released, excepting only flood water entering Caballo Reservoir from tributaries below Elephant Butte Reservoir.

DEPARTURES FROM NORMAL RELEASES /5

For the purpose of computing the time of Hypothetical Spill required by Article VI and for the purpose of the adjustment set forth in Article VII, no allowance shall be made for the difference between Actual and Hypothetical Evaporation, and any under-release of usable water from Project Storage in excess of 150,000 acre-ft in any year shall be taken as equal to that amount.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

/2 Adopted at Fourth Annual Meeting, February 24, 1943.

/3 Amended September 9, 1998.

/4 Amended March 22, 2001; made effective January 1, 2001.

/5 Adopted June 2, 1959; made effective January 1, 1952.

/6 Adopted March 31, 2009; made effective January 1, 2010.

RULES AND REGULATIONS

EVAPORATION LOSSES /6, /7, /8

The Commission shall encourage the equipping, maintenance and operation, in cooperation with the U.S. Weather Bureau or other appropriate agency, of evaporation stations at Elephant Butte Reservoir and at or near each major reservoir in the Rio Grande Basin within Colorado constructed after 1937 and in New Mexico constructed after 1929. The net loss by evaporation from a reservoir surface shall be taken as the difference between the actual evaporation loss and the evapo-transpiration losses which would have occurred naturally, prior to the construction of such reservoir. Changes in evapo-transpiration losses along stream channels below reservoirs may be disregarded.

Net losses by evaporation, as defined above, shall be used in correcting Index Supplies for the operation of reservoirs upstream from Index Gaging Stations as required by the provisions of Article III and Article IV of the Compact.

In the application of the provisions of the last unnumbered paragraph of Article VI of the Compact:

(a) Evaporation losses for which accrued credits shall be reduced shall be taken as the difference between the gross evaporation from the water surface of Elephant Butte Reservoir and rainfall on the same surface.

(b) Evaporation losses for which accrued debits shall be reduced shall be taken as the net loss by evaporation as defined in the first paragraph.

ADJUSTMENT OF RECORDS

The Commission shall keep a record of the location, and description of each gaging station and evaporation station, and, in the event of change in location of any stream gaging station for any reason, it shall ascertain the increment in flow or decrease in flow between such locations for all stages. Wherever practicable, concurrent records shall be obtained for one year before abandonment of the previous station.

NEW OR INCREASED DEPLETIONS

In the event any works are constructed which alter or may be expected to alter the flow at any of the Index Gaging Stations mentioned in the Compact, or which may otherwise necessitate adjustments in the application of the schedules set forth in the Compact, it shall be the duty of the Commissioner specifically concerned to file with the Commission all available information pertaining thereto, and appropriate adjustments shall be made in accordance with the terms of the Compact; provided, however, that any such adjustments shall in no way increase the burden imposed upon Colorado or New Mexico under the schedules of deliveries established by the Compact.

TRANSMOUNTAIN DIVERSIONS

In the event any works are constructed for the delivery of waters into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, such waters shall be measured at the point of delivery into the Rio Grande Basin and proper allowances shall be made for losses in transit from such points to the Index Gaging Station on the stream with which the imported waters are comingled.

/6 Amended at Tenth Annual Meeting, February 15, 1949.

/7 Amended at Twelfth Annual Meeting, February 24, 1951.

/8 Amended June 2, 1959.

RULES AND REGULATIONS

QUALITY OF WATER

In the event that delivery of water is made from the Closed Basin into the Rio Grande, sufficient samples of such water shall be analyzed to ascertain whether the quality thereof is within the limits established by the Compact.

SECRETARY /8, /9

The Commission may, on a yearly basis, employ appropriate entities to render such engineering and clerical aid as may reasonably be necessary for administration of the Compact. The entities may be employed to:

(1) Collect and correlate all factual data and other records having a material bearing on the administration of the Compact and keep each Commissioner advised thereof.

(2) Inspect all gaging stations required for administration of the Compact and make recommendations to the Commission as to any changes or improvements in methods of measurement or facilities for measurement which may be needed to insure that reliable records be obtained.

(3) Report to each Commissioner by letter on or before the fifteenth day of each month, except January, a summary of all hydrographic data then available for the current year - on forms prescribed by the Commission - pertaining to:

- (a) Deliveries by Colorado
- (b) Deliveries by New Mexico
- (c) Operation of Project Storage

(4) Make such investigations as may be requested by the Commission in aid of its administration of the Compact.

(5) Act as Secretary to the Commission and submit to the Commission at its regular meeting in February a report on its activities and a summary of all data needed for determination of debits and credits and other matters pertaining to administration of the Compact.

COSTS /1, /2

At its annual meeting, the Commission shall adopt a budget for the ensuing fiscal year beginning July first.

Such budget shall set forth the total cost of maintenance and operating of gaging stations, of evaporation stations, the cost of engineering and clerical aid, and all other necessary expenses excepting the salaries and personal expenses of the Rio Grande Compact Commissioners.

Contributions made directly by the United States and the cost of services rendered by the United States without cost shall be deducted from the total budget amount; the remainder shall then be allocated equally to Colorado, New Mexico and Texas.

/8 The substitution of this section for the section titled "Reports to Commissioners" was adopted at Ninth Annual Meeting, February 22, 1948.

/9 Amended March 31, 2009.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

/2 Amended March 31, 2009.

RULES AND REGULATIONS

Expenditures made directly by any State for purposes set forth in the budget shall be credited to that State; contributions in cash or in services by any State under a cooperative agreement with any federal agency shall be credited to such State, but the amount of the federal contribution shall not so be credited; in event any State, through contractual relationships, causes work to be done in the interest of the Commission, such State shall be credited with the cost thereof, unless such cost is borne by the United States.

Costs incurred by the Commission under any cooperative agreement between the Commission and any U.S. Government Agency, not borne by the United States, shall be apportioned equally to each State, and each Commissioner shall arrange for the prompt payment of one-third thereof by his State.

The Commissioner of each State shall report at the annual meeting each year the amount of money expended during the year by the State which he represents, as well as the portion thereof contributed by all cooperating federal agencies, and the Commission shall arrange for such proper reimbursement in cash or credits between States as may be necessary to equalize the contributions made by each State in the equipment, maintenance and operation of all gaging stations authorized by the Commission and established under the terms of the Compact.

It shall be the duty of each Commissioner to endeavor to secure from the Legislature of his State an appropriation of sufficient funds with which to meet the obligations of his State, as provided by the Compact.

MEETING OF COMMISSION /1, /10

The Commission shall meet in Santa Fe, New Mexico, on the third Thursday of February of each year for the consideration and adoption of the annual report for the calendar year preceding, and for the transaction of any other business consistent with its authority; provided that the Commission may agree to meet elsewhere. Other meetings as may be deemed necessary shall be held at any time and place set by mutual agreement, for the consideration of data collected and for the transaction of any business consistent with its authority.

No action of the Commission shall be effective until approved by the Commissioner from each of the three signatory States.

(Signed) M. C. HINDERLIDER

M. C. Hinderlinder

Commissioner for Colorado

(Signed) THOMAS M. McCLURE

Thomas M. McClure

Commissioner for New Mexico

(Signed) JULIAN P. HARRISON

Julian P. Harrison

Commissioner for Texas

Adopted December 19, 1939.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

/10 Amended at Thirteenth Annual Meeting, February 25, 1952.

