

Rio Grande Compact Commission

81st Annual Meeting

November 12, 2020

Webcast from Santa Fe, New Mexico

Chairman Simpson called the 104th (81st Annual) Meeting of the Rio Grande Compact Commission to order on November 12, 2020, at 10:00 A.M. He welcomed the participants, numbering over 70, to the meeting being held via a webcasting platform. The virtual format of the meeting, which was required due to the coronavirus pandemic, was then approved by the Commission.

Each member of the public was able to view ten people on the screen, including the Rio Grande Compact Federal Chairman and the Commissioners, Engineer Advisers, and Legal Advisers representing New Mexico, Colorado and Texas.

Commissioner Kevin Rein of Colorado introduced Craig Cotten, Engineer Adviser, and Chad Wallace, Legal Adviser, for the State of Colorado. Commissioner Pat Gordon introduced Suzy Valentine, Engineer Adviser, and Priscilla Hubenak, Legal adviser, for the State of Texas. As host of the virtual meeting, Commissioner John D'Antonio then introduced Page Pegram, Engineer Adviser, and Chris Shaw, Legal Adviser, for the State of New Mexico.

The agenda for the meeting was approved by the Commission and was posted on the New Mexico Interstate Stream Commission (NMISC) website at https://www.ose.state.nm.us/Compacts/RioGrande/isc_RioGrande.php.

Next, the Engineer Adviser for New Mexico, Page Pegram, gave the Engineer Advisers' Report. The full report was also posted on the New Mexico website, and Ms. Pegram presented key excerpts from the Report.

She reported that the Engineer Advisers to the Rio Grande Compact Commission met in Albuquerque, New Mexico, on February 7, 2020, and between March 2 and March 6, 2020, to receive reports; prepare the 2019 Rio Grande Compact (Compact) water accounting; discuss continuing and new issues in preparation for the 2020 annual meeting of the Rio Grande Compact Commission (Commission); and prepare the Engineer Advisers' Report.

The Engineer Advisers 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 agencies each presented information about their specific water-related activities in the basin during the previous calendar year.

Regarding 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 2019 and were again unable to reach a consensus on the accounting. The lack of consensus arises from a disagreement that began in 2011 amongst the Texas Engineer Adviser and the New Mexico and Colorado Engineer Advisers on the release of Credit Water by Reclamation from Elephant Butte Reservoir in late summer of 2011. As a result, the Engineer Advisers have not reached consensus on how to finalize the 2011 through 2019 Compact Delivery Tables for Colorado and New Mexico and the Release and Spill from Project Storage Table.

For 2019, as in previous years, each of the Engineer Advisers developed accounting methods described in the addenda to the Engineer Advisers' Report. At its 2019 meeting, the Commission did not approve any of the proposed accounting methods. In 2020, the Engineer Advisers used the accounting methods they individually prepared to carry forward Compact accounting for the 2019 calendar year.

As described in the New Mexico Engineer Adviser's addenda in previous years, the use of accounting methods 1 and 2 had an impact on the timing of Article VII storage restrictions and upstream storage operations. In 2019, Article VII timing was different for both accounting methods. By method 1 (Reclamation and Texas), Article VII restrictions were lifted on May 12, 2019, and by method 2 (New Mexico and Colorado), Article VII restrictions were lifted on May 11, 2019.

New Mexico began 2020 with an Accrued Debit. In 2020, New Mexico stored native Rio Grande water, retained water in storage in upstream reservoirs to the extent of its 2020 Accrued Debit and may release all or part of this stored water after November 1, 2020, for delivery to Elephant Butte Reservoir.

Regarding the Elephant Butte Delta Channel Project, during the 2019 snowmelt runoff, flows in the Delta Channel exceeded the design capacity, resulting in overbanking and erosion of spoil berms. Several breaches in the project spoil berms occurred during the snowmelt runoff and two distinct sediment plugs formed. A breach on the east side of the channel was discovered

early during snowmelt runoff, and Reclamation crews were able to mobilize and make necessary repairs.

During September, October, and November of 2019, the NMISC construction contractor repaired spoil-bank breaches and excavated one of the sediment plugs. They also performed other in-channel maintenance, sandbar devegetation and access road grading throughout the Delta Channel Project area. The second sediment plug was located in a stretch of the Delta Channel project area that at the time of the maintenance operations was within the active pool of the reservoir and thus not excavated.

On relinquishment updates, the total amount of Accrued Credit relinquished by Colorado since 2013 is 3,000 acre-feet. Between 2013 and 2019, Colorado stored a total of 2,068 acre-feet of relinquished water in Platoro Reservoir. Colorado did not store any relinquished water in 2019, which leaves a balance of 932 acre-feet in Colorado's relinquishment account.

The total amount of Accrued Credit relinquished by New Mexico since 2003 was 380,500 acre-feet. Four hundred acre-feet of relinquished water was stored in El Vado Reservoir in 2019 by Reclamation on behalf of the State of New Mexico. Relinquishment-water storage to date totals 288,728 acre-feet, leaving a balance of 91,772 acre-feet available to be stored in future years when Article VII storage restrictions are in effect.

On gaging station reviews, the USGS also reported that they reviewed and approved the 2019 Rio Grande below Caballo Reservoir streamflow gage (#08362500) flow records developed by Reclamation, and that all necessary documentation was provided. The USGS reported that the record accuracy looked good, in large part due to the high number of measurements made at the gage (63 in total).

In 2019, Reclamation was able to utilize the Acoustic Doppler Velocity Meter (ADVM) to collect data for the entire irrigation season. However, this data was not used in the development of the records because Reclamation is continuing to evaluate quality control methods for the ADVM data. The USGS stated that once the quality control issues have been resolved, measurement quantity could be reduced by fully utilizing the ADVM installed at the site. The USGS also reported that they ran levels in cooperation with Reclamation in 2019 to verify the gage datum at the site.

At the 2020 pre-Engineer Advisers' meeting, Reclamation stated that they are in the process of relocating the Rio Grande below Caballo Reservoir gage (#08362500) to the opposite side of the river and approximately 100 feet upstream. Reclamation stated that the change in elevation between the two gage locations was calculated to be 0.008 feet, and they will run the gages concurrently to compare the discharge records for the two gage locations.

Reclamation is currently coordinating with the USGS and is now anticipating that relocation work will be completed sometime during 2020. Reclamation also reported that they had investigated the feasibility of flow meters in the outlets of Caballo Reservoir but had decided not to install them due to the high costs.

At their 2018 meeting, the Engineer Advisers requested that Reclamation prepare a report on the cause of discrepancies between lake elevation surveys and the stage discharge recorder and stressed the critical nature of this issue. Reclamation has not yet provided the requested report since they are still evaluating the issue. NMISC and Reclamation will continue to perform side-by-side surveys at select times during 2020 to ensure the accuracy of the reservoir elevation data.

On gaging station operating costs, in recent years, the Engineer Advisers and Compact Commissioners have expressed concern over the large differences in costs between what Reclamation charges to operate the gage below Caballo Reservoir as compared to what the Colorado Division of Water Resources (CDWR) and USGS charge on average for other Compact gages. The three Compact states split the costs of their operations in support of the Compact equally, including operation and maintenance of the Compact gaging stations.

In the last few years, Reclamation has decreased their charged amount for the gage below Caballo Reservoir. However, the charged amount for fiscal year (FY) 2021 rose by approximately 64 percent from FY 2020. This FY 2021 cost charged by Reclamation is over twice as high as the costs charged per gage by CDWR and the USGS. The Engineer Advisers are again concerned with Reclamation's high costs the operation of this gage, and with the large fluctuations in the charged costs year to year.

Regarding snowmelt runoff forecasting, as part of this ongoing effort to increase the accuracy and reliability of the forecasts, unique solutions have been developed. In Colorado, a Doppler radar unit was installed at the Alamosa airport in May of 2019. The main purpose of this radar unit is to capture the snow water equivalent (SWE) precipitation that falls in the upper basin of Colorado in the winter. By using the traditional snow telemetry network (SNOTEL) gaging stations as ground truth stations, this radar better tracks the winter precipitation that occurs throughout the basin, and in turn increases the accuracy of the forecasting models. The radar was operational in the fall of 2019 and is currently being used for the first time for winter precipitation and water supply forecasting.

For the Six Middle Rio Grande Pueblos prior and paramount (P&P) water operations, the Engineer Advisers remain concerned about the procedures for quantifying storage, release, and delivery of water for the P&P lands of the 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.

For Rio Grande Project (Project) operations, there was a final 2019 in-season allocation of 705,496 acre-feet, including Mexico's full allocation of 60,000 acre-feet.

Please note that this number was the July number, and was later revised to 726,525 acre-feet. During 2019, Mexico's diversion allocation was increased to 60,000 acre-feet, and 39,935 acre-feet were delivered due to the late start of the irrigation season. Reclamation reported that Project releases from Elephant Butte Reservoir started on May 2, 2019 and continued through October 7, 2019.

The USGS reported that the total annual flow at the gage below Elephant Butte Dam was 468,896 acre-feet. Elephant Butte Reservoir storage peaked at 577,261 acre-feet on July 14, 2019; and the storage at Caballo Reservoir peaked at 55,947 acre-feet on May 30, 2019.

Releases from Caballo Reservoir for irrigation began on May 24 and lasted until October 12, 2019. Diversions to Mexico began on June 5 and ended on September 30, 2019.

Reclamation also recorded Usable Water in Project Storage, which is Elephant Butte and Caballo Reservoirs combined, was 128,816 acre-feet on January 1, 2019, and 579,377 acre-feet on December 31, 2019.

Usable Water storage rose above 400,000 acre-feet on May 12 and reached a high for the year on July 14 at 607,303 acre-feet, according to Method 1, utilized by the Upper Rio Grande Water Operations Model (URGWOM). Usable Water in Rio Grande Project Storage remained over 400,000 acre-feet through the remainder of 2019.

Implementation of a new area-capacity table for Elephant Butte Reservoir resulted in the total reduction in storage at the spillway elevation of 13,686 acre-feet between the last reservoir survey in 2007, and the 2017 survey. For Caballo Reservoir, the reduction in storage at the top of the flood control elevation was 425 acre-feet for this same period.

Using the new area-capacity tables, the available storage for both reservoirs is equal to the capacity of Elephant Butte Reservoir, which is 2,010,900 acre-feet, minus the amount that Reclamation reserves for operational flood control space, which is 25,000 acre-feet during the October 1st to March 31st winter period, and 50,000 acre-feet during the summer; plus the capacity of Caballo Reservoir, about 324,509 acre-feet, minus about 100,000 acre-feet for flood control space, for a total of 2,210,409 acre-feet during the winter, and 2,185,409 acre-feet during the summer.

The New Mexico Engineer Adviser expressed concern about continued use of the 2008 Operating Agreement for the Rio Grande Project. These concerns include changes in Reclamation's reported annual allocation and delivery values since 2008. Additionally, the New Mexico Engineer Adviser expressed concern over operational and administrative changes that have been made under the 2008 Operating Agreement.

Representatives of the USGS, Reclamation, the Corps, the Service, and IBWC presented additional information to the Engineer Advisers in the form of written reports. Ms. Pegram did not go over these reports in detail but reminded everyone again that the reports of the federal agencies are available on the New Mexico website.

Regarding the Rio Grande silvery minnow, the Service and Reclamation reported on the 2019 monitoring results for the silvery minnow using the October catch per unit effort (CPUE) data typically used to report long-term trends and relative abundance. The 2019 October CPUE survey for the Middle Rio Grande resulted in an estimated silvery minnow density of 3.41 silvery minnow per 100 square meters. A large increase from the 2018 CPUE of 0.09 silvery minnows per 100 square meters. The Service acknowledged the impressive efforts in 2018 by water managers to ensure survival of the species, and they made a determination that the low 2018 CPUE will not be counted against the proposed action in the 2016 Biological Opinion (BO). The Service recognized that the low density was a result of climatic conditions, and not of the 2016 BO partner agencies' actions.

On Middle Rio Grande Project channel maintenance, Reclamation took advantage of the formation of a sediment plug within the boundaries of the Bosque del Apache Wildlife Refuge (BDANWR) and the San Acacia Reach during the 2019 spring snowmelt runoff to move forward with the Pilot River Realignment Project previously in the planning stages. The 2019 sediment plug formed in the exact area that a sediment plug formed in 2017 was subsequently excavated by Reclamation.

The New Mexico Engineer Adviser had previously expressed concern over the impact that the Pilot Project might have on water delivery efficiency into Elephant Butte Reservoir, and Reclamation had agreed to reevaluate their project design to potentially address these concerns. The emergency nature of the 2019 sediment plug and Reclamation's decision to take advantage of the conditions on the ground to implement their Pilot Project meant that Reclamation, for environmental compliance reasons, had to implement their original design.

Reclamation had agreed to work with NMISC to monitor the post-construction conditions of the Pilot Project, and to conduct additional work as necessary to ensure a sufficient water delivery.

Regarding the southwestern willow flycatcher and yellow-billed cuckoo, Reclamation and others continued to conduct surveys and monitoring for the flycatcher during the summer along 200 miles of the Rio Grande, mainly from the San Acacia Diversion Dam to Elephant Butte Reservoir, and some select areas near Caballo Reservoir.

In total, 440 flycatcher territories were documented from Albuquerque to the Texas state line. The majority of flycatchers were present in the San Marcial and Elephant Butte Reservoir area with a total of 294 territories. Reclamation has historically conducted surveys for the cuckoo from Belen to El Paso, Texas. In 2019, however, the surveyed area only extended from San Acacia Diversion Dam to El Paso. Within this area, an estimated 96 breeding territories of 429 individual detections were documented.

As with the flycatcher, the San Marcial and Elephant Butte Reservoir pool had the highest concentration of cuckoo territories. A new, revised proposal for critical habitat for the cuckoo was announced in February 2020. The final designation of critical habitat was anticipated to be announced in the Federal Register on or before August 2020.

The Service stated that they are strongly considering excluding the Elephant Butte and Caballo Reservoirs, and areas downstream from the critical habitat designation because of the management plans being developed by Reclamation and IBWC.

The Service also reported that they are working on a 12-month finding regarding the 2017 petition to delist the cuckoo, which was based on the petitioners' opinion that the original listing of the species was in error. The conclusion of the analysis is expected in the Federal Register in 2020.

Regarding IBWC activities, they estimated that 450,000 to 490,000 cubic yards of silt is deposited into the Rio Grande Canalization Project reach annually. This results in sediment plugs, island formations, raised riverbeds, increased flooding risks, and inhibited irrigation return flows. The Canalization Reach is defined as 105 river miles from Percha Dam to El Paso.

Prior to 1990, IBWC removed 250,000 to 300,000 cubic yards of sediment per year. During 2019, IBWC removed over 422,000 cubic yards, including 292,000 cubic yards as part of canalization, and 130,000 cubic yards for rectification. They have used outside contracts to remove about 1,188,000 cubic yards in 2020.

And finally, for Engineer Adviser recommendations, Reclamation has recently conducted surveys to develop a new area-capacity table for Elephant Butte Reservoir. These tables account for the sediment buildup within the reservoir and the related loss of storage. They also are used to determine the current total storage volume of the reservoir. The Rio Grande Compact Rules

and Regulations describe the now-outdated total storage volume in the reservoir. The Engineer Advisers recommend that the Commissioners direct the Engineer Advisers to review the best method to incorporate the new tables developed by Reclamation for Elephant Butte Reservoir into the Compact Rules and Regulations.

Signed by Craig W. Cotten, PE, the Engineer Adviser for Colorado; Page Pegram, the Engineer Adviser for New Mexico; and Suzy Valentine, PE, the Engineer Adviser for Texas, the main Report was approved by the Commissioners, but not the addenda.

Mr. Chris Shaw provided the report from the Legal Committee comprised of the Legal Advisers of each state.

During the 80th Rio Grande Compact Commission meeting, the Compact Commission directed the Legal Committee to review two legal matters and directed the Committee to provide its response prior to the 2020 Engineer Adviser meetings.

The two legal questions the Commission requested the Committee to review are as follows: 1) The Engineer Advisers recommend that the Commissioners direct the Legal Committee to review the Federal District Court ruling in the WildEarth Guardians v. U.S. Army Corps of Engineers, and provide legal opinions on the implications and impacts, if any, to the Commission and the Compact; and 2) that the Legal Committee study the request for future deviations at El Vado for endangered species as it affects the Compact.

To that end, the Committee met telephonically and conferred with the Engineer Advisers as directed on Friday, February 28th to review the two legal questions.

On the first question, the Committee agreed the WildEarth Guardians v. U.S. Army Corps of Engineers case, in its current status, would not impact the Commission or the Compact.

On the second issue, the Committee studied the issues related to the deviations at El Vado but did not reach consensus on any recommended actions that should be taken regarding whether a future request for deviations at El Vado for endangered species would affect the Compact.

The Committee agreed to advise their respective Commissioners about this report and to report findings to the Compact Commission during the Annual Compact Meeting.

The Commissioners approved the report from the Legal Committee.

The reports from the Commissioners began with Commissioner Rein from Colorado. He reported that 2019 was a good water year for Colorado, with significantly above average flows

on the Rio Grande and Conejos River. The Rio Grande had the highest annual flow since 1997 with a total of 929,000 acre-feet, or 145 percent of the average flow. The Conejos River also had the highest annual flow since 1995 with 195,000 acre-feet, or 128 percent of the average.

However, the flows dropped to near or below normal in the late summer and fall which led into a much drier 2020 year, with significantly below average flows on the Rio Grande and Conejos rivers. In 2020 the Rio Grande recorded 380,000 acre-feet which is only 59 percent of the average. On the Conejos, there was an annual flow of 165,000 acre-feet, which is 51 percent of average. All the streams of the Upper Rio Grande Basin experienced a very low-flow year, with flow levels dropping off quickly in the summer. Water users on all of the valley streams ended the irrigation season around November 1st. The recharge canals were still running but would shut down soon.

In November, the current climate conditions were improving due to recent storms in southern Colorado and the Rio Grande Basin which was well above average. Southern Colorado was seeing more early precipitation than northern Colorado.

Commissioner Rein then discussed the groundwater administration in Colorado, including the rules and regulations which became final in 2019. The new rules require that the groundwater users replace the impacts to the streams. Colorado has actively curtailed surface water usage to ensure that they meet their Compact obligations. One of the main objectives of requiring groundwater users to replace any impacts to the streams is to ensure that the surface water users are not injured by groundwater withdrawals.

The rules rely on the Rio Grande Decision Support System Groundwater Model to determine impacts to the surface water users. The requirement to replace any impacts to the surface water users goes into effect on March 15, 2021. There is also a sustainability component to the rules to face the continuous challenge of climate change. If the well owners are not within a fully functioning subdistrict or have an augmentation plan by March 15th, they will not be allowed to pump.

Commissioner Rein described the seven subdistricts. Subdistrict 1 has been in operation for nine years and has an approved plan. Three other subdistricts are in their first year of operations and have approved annual replacement plans. They are also operating. There are three additional subdistricts which have finalized their plans, and they will also be able to begin operating by the deadline.

Covid restrictions in Colorado are impacting the budget for the Division of Water Resources. DWR employees are generally working from home. Recent work on automation and digital materials has helped with this effort. Impacts to travel continue to be a challenge.

Commissioner Rein concluded his report, and there were no questions.

Commissioner Pat Gordon provided a report for Texas. He thanked the participants for their work and did not need to make comments on Project operations already covered by the Engineer Advisers' Report.

He did raise the issue from 2019 concerning the San Juan-Chama water losses and how they were calculated in the Upper Rio Grande Water Operations Model (URGWOM). He acknowledged the April 2020 meeting between the Corps and the Engineer Advisers to discuss this concern and Reclamation's analysis in 2011 of the evaporation losses. Commissioner Gordon also expressed continued concerns about the dynamics between the San Juan-Chama water and native Rio Grande water loss calculations and is looking forward to developing a better understanding of that process.

Commissioner Gordon also commented about the Bonita Lateral flows, stating that he would like additional information from Reclamation to better understand how these flows work. Texas does not believe that the water taken from Elephant Butte and Caballo via the Bonita Lateral is a delivery of Compact water to Texas as it is under the accounting. Even though it is not a lot of water, he looks forward to a more detailed explanation from Reclamation in 2021 regarding the Bonita Lateral.

A third concern expressed by Commissioner Gordon was related to the applications for new appropriations of water in the Lower Rio Grande, and he looks forward to working with the New Mexico State Engineer regarding this issue.

The next concern was with the New Mexico Copper Mine application for the transfer of water rights from Santa Teresa Capital, which is far away from the mine. Therefore, there could be direct impacts to the flows of the Rio Grande and water in Caballo Reservoir, in addition to environmental impacts.

Commissioner Gordon also commented on the Caballo storage which began 2020 at 26,938 acre-feet and ended up at an even higher level at 33,872 acre-feet. Elephant Butte started significantly higher but ended up at a very low level. He expressed concerns about storing that much water in Caballo during a dry year like 2020, even though Reclamation may be wanting to protect artifacts, etc.

As a final comment, Commissioner Gordon thanked the IBWC for their sediment removal work. They had done an enormous amount of work in 2020, and he wanted them to know that he appreciated their efforts and looked forward to it continuing.

Commissioner John D'Antonio provided the report for the State of New Mexico. He thanked attendees and particularly Page Pegram, his Engineer Adviser, and Linda Tenorio for organizing the virtual meeting. Commissioner D'Antonio reported that New Mexico faced hydrologic extremes within the Rio Grande Basin since he returned as a Commissioner, with both an abundance of water, and extreme water shortages during those past two years. He described the many water-related issues and challenges being addressed in New Mexico, including water rights implementation and negotiations, water shortages, water planning efforts, alternative administration, mainly in the form of shortage sharing agreements, and interstate and intrastate litigation.

He then provided a hydrology review for calendar year 2019, which would normally have been given in March. The 2018 to 2019 winter saw well above average snowpack, and snowmelt runoff within the Rio Grande Basin in New Mexico was extremely high. However, the monsoon activity was below average for 2019. The Otowi index supply for 2019 was 1.36 million acre-feet, 17th highest on record, compared to 312,000 acre-feet in 2018.

New Mexico's delivery obligation to Elephant Butte for 2019 was 957,400 acre-feet, with an actual delivery of about 914,002 acre-feet. New Mexico began 2019 with an Accrued Credit of 5,400 acre-feet. However, under the accounting Method 2 which is used by New Mexico and Colorado, New Mexico ended 2019 with an under-delivery, and Accrued Debit of 38,800 acre-feet.

Article VII storage restrictions were lifted on May 11, 2019, when Usable Water and Project Storage rose above the 400,000-acre-foot trigger, and they remained lifted for the duration of 2019.

Inflow into El Vado Reservoir during 2019 was well above average, and the reservoir reached its maximum allowable storage of approximately 115,000 acre-feet. This is lower than the capacity of the reservoir, but it is a current maximum until dam safety repairs can be made for El Vado Dam. The Middle Rio Grande Conservancy District (MRGCD) was able to store more than 100,000 acre-feet in El Vado Reservoir by the end of the 2019 snowmelt runoff. Because 2019 was a high runoff year, New Mexico's delivery obligations to Elephant Butte were also very high. Coordination among water managers was necessary to move stored water, primarily in November and December, to Elephant Butte to minimize New Mexico's Accrued Debit. The two sediment plugs in the river channel at BDANWR and the Delta Channel, complicated this operation. Commissioner D'Antonio thanked everyone who assisted with this effort for their quick actions to mitigate the plugs.

Commissioner D'Antonio then discussed the year 2020 conditions and operations. The year 2020 was an extremely poor water year, as opposed to 2019. Even though Article VII

restrictions were lifted, the 2020 snowmelt runoff inflow to El Vado Reservoir from March to July were only about 80,000 acre-feet, or 36 percent of average.

The Otowi index supply for 2020 was predicted to be only 410,000 acre-feet, much lower than in 2019. Due to the Accrued Debit status for 2020, Commissioner D'Antonio directed Reclamation, MRGCD, the City of Santa Fe, to comply with Article VI of the Compact and retain the amount of the 2019 Debit Water to be stored, primarily in El Vado Reservoir.

By mid-July, MRGCD had nearly exhausted its irrigation storage and requested consent of the Commission to release the Debit Water that was being retained in El Vado Reservoir for irrigation and endangered species purposes. He reached out to the other commissioners regarding the emergency request, and on July 16, 2020, Commissioner Gordon consented with conditions to allow the release. Commissioner Rein did not object.

Commissioner D'Antonio expressed his gratitude to the commissioners from Texas and Colorado for their cooperation in allowing the emergency release of the retained Debit Water which both benefitted the MRGCD and endangered species. Commissioner D'Antonio issued a State Engineer Order on July 17, 2020, which authorized the release including the requirements specified by the Texas commissioner in his consent. The releases began on July 18th and ended on September 7, 2020. During that period, 31,892 acre-feet were released, with about 3,400 acre-feet remaining in storage. He requested that the Engineer Advisers coordinate on releasing the remaining Debit Water at the earliest practical time for delivery into Elephant Butte Reservoir.

Looking forward to the 2021 calendar year, New Mexico may carry an Accrued Debit of 90- to 100,000 acre-feet. The MRGCD will need to work closely with the New Mexico staff to deliver more water in 2021. This could include delivering as much water as possible during snowmelt runoff and delaying the start of the 2021 irrigation season, as well as delaying or foregoing any storage operations.

Commissioner D'Antonio stated that he would provide a copy of the understanding regarding the emergency release and the State Engineer Order to be incorporated into the report of the proceedings (see two documents attached). He also recognized Mike Hamman, Chief Executive Officer and Chief Engineer for the MRGCD and asked him to say a few words.

Mr. Hamman described the letter from the MRGCD Board chairman, Ms. Karen Dunning, expressing their extreme gratitude for the actions of the Commission that allowed them to avoid the serious losses in agriculture production as well as meeting the commitments for the BO partners to protect the endangered species in the reach of the Middle Rio Grande. He stated that the MRGCD is dedicated to do their part in the equitable distribution of the limited water resources in the Rio Grande Basin. Therefore, they plan to work closely with the State in

developing their operational plans for 2021 to do everything possible to erase the debit situation in New Mexico.

Commissioner D'Antonio then continued his report and reviewed the efforts by New Mexico to conserve and assist in the recovery of threatened and endangered species and the status of those commitments. These include efforts on behalf of the Rio Grande silvery minnow, the southwestern willow flycatcher, the yellow-billed cuckoo, and the New Mexico meadow jumping mouse.

New Mexico staff have been assisting with fish rescue efforts, silvery minnow egg collections, fish recovery studies, research on spring runoff and reservoir modifications and monitoring floodplain use by the silvery minnow. Additionally, the Los Lunas Silvery Minnow Refugium has produced over 10,000 fish to stock into the river in 2019. About \$1 million is allocated annually to accomplish New Mexico's endangered species objectives.

Water management in 2019 was focused on flood control, levee protection, and floodplain monitoring. Significant and prolonged inundation of restored floodplains occurred, and increased fish habitat provided an opportunity for the silvery minnow population to bounce back somewhat after 2018. Commissioner D'Antonio provided information on fish densities and cautioned that with another dry year in 2020, the fish number could drop again below the threshold of 0.3 fish per 100 square meters, as they did in 2018.

Accomplishments in 2019 included completion or nearly so of several of the Lower Reach Plan projects, including the BDANWR pilot river realignment, the MRGCD Socorro Hub and Delta Channel maintenance. The pilot realignment construction was expedited to circumvent the sediment plugs that occurred in the adjacent main channel.

Many other Lower Reach Plan projects were in the planning or environmental compliance stage. Numbers of southwestern willow flycatchers have continued to increase in the Middle Rio Grande, specifically in the Elephant Bute Reservoir delta. A total of 426 territories were detected in 2019, mostly below San Marcial. This is the highest number since 2000. There have also been flycatcher numbers in the Caballo to El Paso section of the Rio Grande. Commissioner D'Antonio concluded by reporting that progress continues to be made to the satisfaction of the Service on many conservation measures in the 2106 BO.

New Mexico continues to gather data and evaluate the potential depletions that could affect Compact deliveries and impact the ability to administer the State's water. The losses are of concern to New Mexico as vegetation within the river channel trends upwards. This could become even more concerning as climate change models predict higher temperatures in the southwest in the future.

Commissioner D'Antonio also responded to Commissioner Gordon's comments about continued groundwater applications on the Lower Rio Grande, stating that New Mexico would continue to address those. Since 1980, New Mexico has offset the effects of any groundwater pumping and transfers. When they look at a change of place and purpose of use, they always look at the depletions. Commissioner D'Antonio stated that there were no new depletions within the Lower Rio Grande and that the basin was declared in 1980. He said that they will continue to offset any depletions as they have for the last 40 years. That concluded the report by Commissioner D'Antonio, and there were no further questions.

Normally, the federal agencies would provide verbal presentations regarding their activities and summarizing their written reports. Because of the meeting format, there would be no verbal presentations for this meeting, and the reports are provided on the NMISC website for the participants to review.

Suzy Valentine presented the cost of operations for FY 2019, beginning July 1, 2018 and ending June 30, 2019, of \$200,403. The cost borne by the United States was \$51,594, and the cost which was borne equally by each of the three states was \$49,603. The FY 2019 budget report was then approved by the Commission. She also presented the budget for FY 2021, beginning July 1, 2020 and ending June 30, 2021. The total budget amount was reported as \$228,043, the cost to be borne by United States was reported as \$74,017, and the cost borne equally by each of the three states is \$51,342. However, an error was later discovered: the correct total budget was \$228,229, and the correct cost borne by the United States was \$74,203. These corrections will be reported as errata in the 2020 Report of the Rio Grande Compact Commission. The Commissioners then approved the FY 2021 budget report.

Craig Cotten presented the cooperative agreement with the USGS which had been signed and approved by the Commissioners previously in summer of 2020. The Cooperative Agreement for Investigation of Water Resources with the USGS for the period July 1, 2020, to June 30, 2021 includes the USGS funding \$6,426, and each of the states, Colorado, New Mexico, and Texas, paying \$4,929.

The next agenda item was approval of the 2019 meeting minutes for the 80th Annual Meeting. A copy of the minutes was also provided on the NMISC website. The minutes were approved with no changes or amendments.

Under other business on the agenda, Chairman Simpson described a letter he received from the Corps on September 3, 2019, requesting approval of a temporary deviation from the Water Control Plan in the operation of Cochiti Lake and Jemez Canyon Dam. The Water Resources Development Act of 2018 authorized the temporary deviation for five years, which requires approval from the Commission. The Corps was requesting a written statement of

approval from the Commission for them to restart the deviation. Chairman Simpson had prepared a letter after consulting with the Commissioners and Engineer Advisers which stated that the states had concerns about the reoperation of the deviation as requested and suggested that the Corps take efforts to address the concerns before seeking approval again. The letter will be delivered to Lieutenant Colonel Patrick Stevens.

Commissioner D'Antonio expressed concerns about restarting the deviation now because it would put nearly 200 archaeological sites in the Pueblo of Cochiti at significant risk from the impacts from inundation and wave action that could be created. There are also concerns with depletions that are associated with the deviations which have not been identified. He suggested, as included in the letter, that they work with the Corps, utilizing the State of New Mexico's 50-year water plan, to do a cautionary study involving all the stakeholders within the basin. Commissioner D'Antonio is concerned how the deviation could affect the Pueblos and others, and wants to ensure sufficient water planning is driven from stakeholders and driven upwards, which will take into consideration all the stakeholders within New Mexico. He concluded by stating that he looks forward to working with the Corps regarding the State's planning effort. New Mexico has submitted a letter of intent for this purpose.

Page Pegram presented the letters to the governors to be signed by each of the Commissioners. Since the Commissioners were meeting remotely, the letters would be routed to each Commissioner, and once signed, originals would be sent to each state for distribution to their governor and for their files.

The 81st Annual Meeting of the Rio Grande Compact Commission was then adjourned.

RIO GRANDE COMPACT COMMISSION

COLORADO

TEXAS

NEW MEXICO

November 12, 2020

UNDERSTANDING REGARDING THE EMERGENCY RELEASE OF COMPACT DEBIT WATER

In 2020, New Mexico retained approximately 38,000 acre-feet of water in storage to the extent of its current debit. Article VI of the Rio Grande Compact (Compact) states in relevant part: “The Commission by unanimous action may authorize the release from storage of any amount of 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.”

Due to extreme drought conditions in the Rio Grande basin during 2020 there was insufficient flow of native water to satisfy the needs of all surface water users, including, middle Rio Grande valley farmers, pueblos, acequia’s and critical habitat needs of listed species.

In June 2020, the Middle Rio Grande Conservancy District (District) inquired of the New Mexico Engineer Advisor whether New Mexico would consider releasing retained debit water in order to sustain flow in the river to provide minimum irrigation water for farmers and to maintain critical habitat for listed endangered species pursuant to the terms of the 2016 Final Biological Opinion for Non-Federal water Management and Maintenance Activities on the Rio Grande.

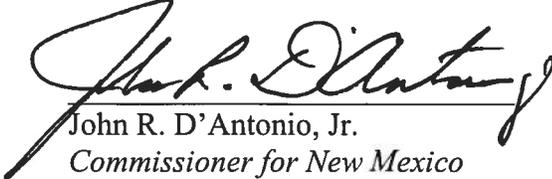
Release of this water would provide an approximately 60-day supply of a minimum amount of water to help middle Rio Grande farmers as well as provide flows to maintain critical habitat for the listed Rio Grande silvery minnow.

On or about July 6, 2020 the Rio Grande Compact Engineer Adviser and Legal Advisor reached out via email to their respective counterparts in Texas and Colorado, requesting they consult with their Commissioners and Legal Advisors to consider an emergency release of approximately 38,000 acre-feet of water New Mexico had retained in storage.

On or about July 16, 2020 the Compact Commissioner for the State of Texas consented with conditions, via email to the release of stored debit water and the Compact Commissioner for the state of Colorado via email did not object to the release of water New Mexico retained.

On or about July 17, 2020 the New Mexico State Engineer entered Order #189 to administer the diversion and use of released Compact debit water and on or about July 24, 2020 the Office of the State Engineer District 1 Water Master (Water Master) entered an Agreement with the District outlining the administration of Compact debit water in order to avoid the unauthorized diversion and depletion of such water and in such a way that water remaining in El Vado storage may be available for release under Art. VIII of the Compact.

This memorializes the 2020 action taken to release water New Mexico retained by reason of accrued debits as described herein.



John R. D'Antonio, Jr.
Commissioner for New Mexico

OFFICE OF THE STATE ENGINEER

STATE OF NEW MEXICO

**IN THE MATTER OF THE NEED FOR EMERGENCY)
ADMINISTRATIVE ACTION IN THE ADMINISTRATION)
OF RELEASED RIO GRANDE COMPACT DEBIT WATER) Order No. 189**

**ORDER IMPLEMENTING THE EMERGENCY RELEASE OF APPROXIMATELY
38,000 ACRE-FEET OF WATER NEW MEXICO RETAINED PURSUANT TO
ARTICLE VI OF THE RIO GRANDE COMPACT**

WHEREAS, due to extreme drought conditions in the Rio Grande basin there currently is insufficient flow of native Rio Grande water to satisfy the needs of all surface water users, including Middle Rio Grande Valley farmers, Pueblos, acequias, and the critical habitat needs of listed endangered species.

WHEREAS, Article VI of the Rio Grande Compact (Compact) states in relevant part:

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.

WHEREAS, in early 2020, New Mexico retained approximately 38,000 acre-feet of water in storage to the extent of its current accrued debit in accordance with Article VI of the Compact.

WHEREAS, Article VI states further: “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.”

WHEREAS, on Monday July 6, 2020 the New Mexico Rio Grande Compact Engineer Adviser and Legal Advisor reached out via email to their respective counterparts in Texas and Colorado, requesting they consult with their Compact Commissioners and Legal Advisors to consider an emergency release of approximately 38,000 acre-feet of water New Mexico has retained in storage to the extent of New Mexico’s current debit in accordance with Article VI of the Rio Grande Compact.

WHEREAS, on July 16, 2020 the Compact Commissioner for the State of Texas consented with conditions to the release of stored debit water and the Compact Commissioner for the State of

Colorado did not object to the release (See, July 16, 2020 letters from the States of Colorado and Texas attached hereto as exhibit "A").

WHEREAS, under NMAC 19.25.13.43 the State Engineer may determine that the need for water rights administration in a specific district is so urgent that water rights administration may proceed directly under an order issued by the State Engineer pursuant to Section 72-2-8(B)(3).

WHEREAS, there is an urgent need for water rights administration in the Middle Rio Grande to sustain flow in the river to provide minimal irrigation water for farmers and to maintain critical habitat for listed endangered species pursuant to the terms of the 2016 Final Biological Opinion for Non-Federal Water Management and Maintenance Activities on the Middle Rio Grande.

WHEREAS, release of this debit water would provide up to a 60-day supply to help Middle Rio Grande farmers as well as provide flows to maintain critical habitat for the listed Rio Grande silvery minnow.

WHEREAS, due to extreme drought conditions in the Rio Grande Basin released debit water will most likely not reach Elephant Butte Reservoir. If significant rains do not occur this summer to contribute flow to Elephant Butte Reservoir, New Mexico will be in a larger Accrued Debit under the Compact in 2021. Such status would significantly and potentially negatively impact next year's reservoir storage and release operations on the Rio Chama.

ORDER

IT IS ORDERED that:

1. Water currently retained in storage to the extent of New Mexico's current debit in accordance with Article VI of the Compact may be released for the purposes specifically provided below.
2. The Water Master shall administer the diversion and use of released debit water to avoid the unauthorized diversion and depletion of such water.
3. The Water Master shall administer the diversion and use of released debit water to conserve such water to the greatest extent possible.
4. The Water Master shall administer the diversion and use of released debit water as necessary only for the following purposes: (1) providing a minimum amount of irrigation water to MRGCD farmers to reduce economic harm to them; (2) sustaining wetted habitat for the endangered Rio Grande silvery minnow; (3) preserving the recreational and aesthetic benefits of the Rio Grande for the public; and (4) assisting water users upstream of the Rio Grande Middle Valley on the Rio Chama and on the Rio Grande downstream of Ohkay Owingeh.
5. To achieve these purposes debit water shall be released from El Vado Reservoir under a plan approved by the New Mexico Compact Commissioner in coordination with the Middle Rio

Grande Conservancy District (District) with a 60-day average release of 300 cfs per day and a maximum rate of release of 400 cfs per day.

6. Water shall be released only during dry periods. If rain contributes flow to the river and the drought conditions recede, the debit water release shall be paused or stopped in order to retain debit water in El Vado for later release.
7. Portions of this water shall be used within the river and/or be directed back to the river through irrigation return flows and drainage to assist with silvery minnow survival.
8. Any other water, such as San Juan Chama Project water that may become available, shall be used first and or used to augment debit water releases.
9. Any unreleased water shall be available for release under either Art. VI or Art. VIII of the Compact.
10. These provisions for the administration of released debit water shall automatically expire after the end of the current irrigation season on October 31, 2020.

EFFECTIVE DATE: This Order shall become effective upon the signature of the State Engineer.

WITNESS my hand and official seal of my office this 17 day of July, 2020.





John R. D'Antonio Jr., PE
State Engineer