

# **Division 3 Annual Report For the 2021 Calendar Year**

## **Covid-19 Impacts**

Calendar year 2021 continued with the Coronavirus (Covid-19) safety protocols and changes in work locations in place. Division 3 began the year with the protocols that were put into place at the end of 2020, with the office being minimally staffed simply for the purpose of answering phones and keeping a presence in the office. In general, each employee worked in the office one or two days per week, with the goal of having somewhere around 20% of office force in the office on any given weekday. In-person meetings were allowed only if it was absolutely necessary, a previous appointment had been made, and if appropriate safety protocols were in place, such as 6 foot distancing and wearing masks. The Alamosa office personnel were set up on a rotational schedule to do office duties, with their remaining time working from home or in the field. As the year went on, Division 3 began to get a few more employees back into the Alamosa office on a regular basis and to relax some of the more onerous restrictions on in-person meetings. In June, a plan was made to begin the process of moving employees back to the Alamosa office for an average of at least half of their office hours. This plan was put into place with the result of almost all of the Alamosa staff returning to the office for half of their non-field time. This plan remained in place through the end of the year.

Additionally, throughout 2021 the ability to attend in-person meetings gradually increased. More meetings were set to have an in-person option, but many were still by videoconference only.

## **Water Administration**

### **Stream Administration**

During the 2020-2021 winter, the Rio Grande Basin experienced a below to near average snowpack that peaked at 103% of average on March 30, then melted much earlier than normal and was gone by the beginning of June. Because of multiple factors including months of well below average precipitation, spring winds and low soil moisture, this below to near average snowpack led to a below average runoff and streamflow season for the rivers and streams in Division 3. Well above average May precipitation provided a late season push, helping towards normal flows, but there weren't any significant precipitation events after that to keep the momentum going.

Most of the rivers and streams had annual streamflows ranging from 30 to 70% of normal.

The Rio Grande near Del Norte hit a daily peak of approximately 4,280 cfs, compared to an average peak flow of approximately 4,885 cfs. The timing of the peak of the runoff was near normal on the Rio Grande, occurring on June 8, and around a week early on the Conejos River on May 17. With a below average yearly streamflow on many streams, the streamflow decreased dramatically in June. Most valley streams hit their baseflow conditions in late August. After reaching baseflow conditions, the streams of the valley generally remained at or below their average flow levels for the remainder of the year. Other than a couple of minor rain events, there was no remaining precipitation to raise the flows to any significant level through the remainder of the year.

Due to the slightly below average snowpack early on and then the below average runoff and streamflow season, compact curtailment/delivery targets were initially set at 11% for the Rio Grande and 15% for the Conejos River system. These curtailment/delivery targets decreased to 7% on the Rio Grande and 10% on the Conejos system by the first week of May. Curtailment/delivery targets remained at 7% on the Rio Grande through July, but were increased to 13% on the Conejos system in June. The Curtailment/delivery targets were increased to 11% on the Rio Grande and 18% on the Conejos system in the first week of July and increased again to 15% on the Rio Grande and 20% on the Conejos system by the third week of July. In the first week of August the curtailment/delivery targets increased again to 19% on the Rio Grande and 25% on the Conejos system. By the last week of August, the curtailments increased to 20% on the Rio Grande. Because of the difficulty in getting flows through the Conejos system and down to the stateline, on August 27 the curtailment went to zero on the Conejos system, with McIntire Springs flow being the only water curtailed for compact purposes. This adjustment was made with the understanding of the water users that the irrigation season would most probably be ended earlier than usual to make up for the decreased compact deliveries. The irrigation season ended on the Conejos River system on October 22nd and the Rio Grande on November 2nd. The actual water delivery at the state line was very close to compact obligations, resulting in an end of the year debit under the Rio Grande Compact of 3,800 acre-feet for Colorado.

Diversions for irrigation began on La Jara Creek on March 15. All of the other streams in Division 3 began the irrigation season on April 1. All Water Districts ended the irrigation season on November 1.

The 2021 water year was the eleventh year in which Subdistrict No. 1 was fully functional and was required to replace surface water depletions to the Rio Grande as well as attempting to bring the aquifers back into a sustainable condition. Subdistricts No. 2 and No. 3 entered their third year, and Subdistrict No. 6 entered its second year of replacing surface water depletions and aquifer augmentation. Subdistrict No. 4 and Trinchera began operations and replacing water to its impacted stream reaches starting in September of 2021. Subdistrict No. 5 did not receive approval of its replacement plan

and appealed the State Engineer's decision in water court in order to be able to make groundwater diversions in 2021.

In 2021, the unconfined aquifer of the Closed Basin lost a significant amount of water, though not as much as the previous year. This was due in large part to several months of well below average precipitation resulting in low stream flows in the Rio Grande and its tributaries. While this follows the downward trend set in 2020, the loss was not as substantial. The area involved in the "Rio Grande Water Conservation District's Unconfined Aquifer of the Closed Basin Change in Storage Study" lost approximately 55,000 acre-feet of water in 2021. With only intermittent increases interspersed with large decreases, currently the aquifer is roughly 210,000 acre-feet lower than it was when Subdistrict No. 1 began its first year of operation in 2012. DWR continues to voice concerns about the aquifer levels and sustainability goals to Subdistrict No. 1 and to the Rio Grande Water Conservation District. The subdistrict board is continually exploring options to meet the sustainability goals, including potentially adjusting those requirements or timelines.

Division 3 relies heavily on accurate streamflow forecasts in order to correctly deliver the proper amount of water to the downstream states under the requirements of the Rio Grande Compact. Historically Division 3 has used only the NRCS to provide these forecasts. Unfortunately, over the last decade the accuracy of the NRCS forecasts has been less than ideal, as has been described in previous Division 3 annual reports. In an effort to increase the accuracy of streamflow forecasting, a permanent weather radar was installed in the Valley in the spring of 2019. This radar has the capability to measure the amount of water within the falling snow, which can then be used by forecasting models to develop a more accurate representation of the total amount of snow water equivalent over the entire basin, not just in the isolated areas where we have SNOTEL stations. This radar began to be used for enhanced snowpack analysis and streamflow prediction in 2020 and it is hoped that it will become an instrumental tool for accurate streamflow prediction into the future.

There was a staffing change within Division 3 during 2021. John Skinner retired after twelve years in the Well Commissioner position, Christy Kesselring filled the empty spot in December.

### **Groundwater Metering**

In 2021, the method of accepting meter readings from the users continued to primarily be utilizing online methods. This year the Water Information Team completed the tools to allow the water users to inactivate wells through an online only process. This process allows users/owners to log in to the system and inactivate wells without having to fill out paper forms and does not require a form to be notarized thus streamlining the

process for those inactivating a well/measuring point. Staff then verifies the wells inactive status.

No major modifications were made to the process of recertifying previously certified meter testers. Testers were again required to demonstrate knowledge of 1) Testing procedures; 2) Equipment requirements; and 3) Rules and Regulations of the basin that the tester works in.

During the 2021 year, we continued being vigorous in pursuing violations of the Metering Rules and Standards, resulting in the following violations and enforcement actions:

Violations of Metering Deadlines:

Violation of meter recertification deadline: **298**

Violation of annual metering data submittal deadline: **323**

Miscellaneous violations (broken TFM, no seal, unmetered discharge, etc.): **2**

Formal Division Engineer Orders sent:

Orders for missing recertification deadline: **134**

Orders for missing annual metering data deadline: **79**

Orders for Miscellaneous Violations: **5**

Formal Water Court Actions:

Actions referred to Attorney General's Office: **4**

### **Hydrography**

Division 3 has one hundred and six Satellite Monitoring Stations(SMS) which includes five additional SMS stations installed this year. The new sites were installed on the Alamosa River drainage and will aid in water administration. Sixty-two of Division 3 stations are record stations that are published annually. We cooperate with Tetra-Tech who operates four gaging stations for CDPHE. In 2021 one thousand one hundred and forty-two measurements were made by the hydrography staff. During 2021, the Division 3 hydrography staff operated with Jesse Jaminet, Geoff Warden, Lee Conner, and Taylor Chick. One full time position remained vacant.

Division 3 continues to pursue better methods and equipment to increase water measurement accuracy. A new salt tracer dilution method is being used to measure low flows in difficult conditions. Electronic equipment continues to be upgraded to V2 transmitters and there is a transition from stilling wells and shaft encoders to non-contact stage radars.



A new cross-vane rock control and radar were installed at Goose Creek near Wagon Wheel Gap.

## **Water Issues**

### **Subdistrict Coordination**

In September 2015, Rules and Regulations concerning groundwater use in Division 3 (Rules) were submitted to the Division 3 Water Court. The Rules require groundwater users to mitigate their injurious depletions to senior water rights. This can be done in three ways; the well user may opt to develop an augmentation plan, the well user may wish to join a subdistrict, or that user must cease using his wells. The rules also require that well owners develop plans to ensure that the aquifers are recovered to, and then kept at, a sustainable level.

Water Judge Pattie Swift issued a ruling approving the Rules on March 15, 2019, a little over a year after the Rules trial. This set into motion timelines for compliance. By March

15, 2021, all Non-Exempt wells must be participating in a Subdistrict that is operating under a valid Annual Replacement Plan (ARP), participating in a Plan for Augmentation, or operating under an approved Substitute Water Supply Plan in anticipation of finalizing a Plan for Augmentation. The ARP Year runs from May 1 to the following April 30.

Subdistricts 1 through 6 formed under the Rio Grande Water Conservation District, with a seventh subdistrict (Trinchera Subdistrict) being formed under the auspices of the Trinchera Water Conservancy District. Subdistrict No. 1 has been operating under an ARP since 2012. The Rio Grande Alluvium Subdistrict (Subdistrict No. 2) and the Conejos Subdistrict (Subdistrict No. 3) have operated under an ARP since 2019. The San Luis Creek Subdistrict (Subdistrict No. 4), Alamosa La Jara Subdistrict (Subdistrict No. 6), and the Trinchera Subdistrict since 2020.

The Saguache Subdistrict (Subdistrict No. 5) submitted ARPs for 2020 and 2021, but the State Engineer was not able to approve them because they could not confirm enough replacement water to cover all the depletions owed for the ARP Year. Subdistrict No. 5 filed an objection with the Water Court to the SEO's denial of their 2021 ARP. While the matter is under judicial review, Subdistrict No. 5 wells have not been subject to enforcement under the Division 3 Rules.

Subdistrict No. 1 began their tenth ARP Year on May 1, 2021. The sustainability metric for Subdistrict No. 1 is documented by the RGWCD Unconfined Aquifer of the Closed Basin Change in Storage Study. The Subdistrict continues to struggle with achieving their sustainability metric. Subdistrict No. 1 has no regulatory authority to curtail pumping among its members. The only tools the subdistrict has are the ability to assess fees and offer incentive programs for reduced pumping. If it is determined that they are unable to achieve the sustainability metric, the Division Engineer and the State Engineer will be put in the unenviable but required position of curtailing groundwater diversions from Subdistrict No. 1 wells. In 2021 the Subdistrict began a permanent retirement Well Purchase Program and continues to offer CREP following contracts to promote cutbacks in aquifer usage to attempt to meet its sustainability goals. The Subdistrict also has developed a fourth amended Plan of Water Management that they will submit to court to modify the existing approved plan to provide it with additional tools to reduce aquifer withdrawals to achieve sustainability.

Currently Division 3 continues to review all existing decreed augmentation plans to determine the impact that the Rules will have, if any, on each plan. A process is being created for advisement on future augmentation plans due to the new requirements in the San Luis Valley. Division 3 representatives are participating in an Augmentation Steering Committee with other Divisions to develop standard protocols for the accounting and administration of Plans for Augmentation. Many small, particularly non-irrigation users in Division 3 will need to get a decreed plan for augmentation, purchase coverage from a blanket augmentation provider, or contract with a subdistrict to continue diversions that are currently not in compliance with the Groundwater Use Rules.

## **Rio Grande Compact**

The Rio Grande Compact apportions water between the states of Colorado, New Mexico, and Texas. Over the last decade, controversy has erupted regarding various aspects of the compact. These controversies are exacerbated by the U.S. Supreme Court Case that Texas brought against the other states in 2013. The case revolves around groundwater pumping below Elephant Butte Reservoir in southern New Mexico that Texas claims is injuring its right to surface water.

In 2021, the pace of the United States Supreme Court case picked up significantly. The first portion of the trial began in September of 2021 and was held virtually in front of Special Master Melloy. This portion of the trial lasted several months, and only included testimony by non-expert witnesses. The virtual setting of the trial was an interesting dynamic in the proceedings, but it seemed to go well.

Following the first portion of the trial, the parties began mediation meetings in late 2021 with a new mediator, retired Federal District Judge Arthur Boylan. A technical Committee of experts from each party was also formed to begin work on the technical framework of a potential negotiated settlement. It is hoped that this mediation process will yield good results and will allow the parties to reach a settlement without the need to continue with the trial.

## **Water Court Activity**

Chief District Judge Michael Gonzalez continued service as Water Judge throughout 2021 after taking over that appointment in 2020. He succeeded Pattie Swift who retired after serving as the Chief District Court and Water Judge from October, 2011 through 2019. Nicolas Sarmiento continued in his capacity as Division 3 Water Referee.

Judge Swift presided over the Division 3 Groundwater Use Rules (Case No. 15CW3024) trial and filed her Judgment and Decree on March 15, 2019. This landmark determination was not appealed. The decision set forth a deadline of March 15, 2021 for compliance with the Rules. Therefore, 2021 was the first irrigation season in which full compliance with the Rules was expected of all non-exempt wells within Water Division 3. In response to the Rules decree, six groundwater management Subdistricts of the Rio Grande Water Conservation District have been formed along with the Trinchera Subdistrict.

A total of 66 cases were filed with the Water Court during 2021. This was the highest number of filings in a calendar year since 2002 (68 cases). Division 3 typically has about 40 cases filed with the Water Court each year. The State and Division Engineers continued injunctive action efforts against well metering violators. Four cases were filed

and brought to a consent decree. Typically, the Division 3 filings are dominated by applications for change of underground water rights. 2021 was no different as 44 of the 66 cases were of this type. Many of these cases were filed in an effort to legalize use of wells to obtain compliance with the Groundwater Use Rules.

The State and Division Engineers Revised Abandonment List was filed with the Division 3 Water Court on December 20, 2021 and was assigned Case No. 21CW3023. The final list contained just 73 surface water rights of the total 542 water rights listed. Just over 75% of the list is comprised of groundwater rights. For 50 of the groundwater rights, the Division Engineer is seeking partial abandonment - limiting the volume and/or legal area of use for the well.

3 large augmentation plans were filed in the Division 3 Water Court towards the end of 2021. The plans, filed by Mike Kruse, Lynn McCullough, and the Sustainable Water Augmentation Group (SWAG) were all the result of the difficult with subdistrict #1 meeting its plan goals of sustaining the aquifer, and the fear that a new plan would cause hardship on some water users.

### **Marijuana/Hemp Issues**

The Cannabis industry continued to expand slightly in Division 3 during 2021. Throughout Division 3, 6 new marijuana licenses were added for a total of 65 licensed marijuana cultivation facilities. There were a total of 24 licensed hemp production facilities in 2021 in Division 3 which represents a loss of 58 hemp licenses. In addition to those totals, there are numerous personal use and caregiver marijuana grows throughout Division 3.

The continued expansion of the cannabis industry in Division 3 has continued to result in numerous questions and requests from the public for the administration of water related to grow operations. The cannabis industry also saw a continued number of Water Court and Substitute Water Supply Plan requests pertaining to the development of year-round water supplies for cannabis cultivation.

One of the largest augmentation plans in Division 3, The San Luis Valley Water Conservancy District, renewed their moratorium on sales of their water to marijuana cultivations in 2021.

These challenges continued to create an increased demand on DWR resources but also provided an opportunity to improve communication with water users and local governments in regard to Colorado's water laws. Division 3 staff continued to answer an increased number of questions from the public, worked with cannabis growers to develop and utilize legal water supplies, and continued to track the usage of water hauling operations to ensure that legal water supplies were used. Throughout 2021,



staff wrote numerous water supply verification letters for County land use offices in regard to special use applications for cannabis producers.

### **Involvement in the Water User Community**

There is a long-standing tradition of service to the water user community in the San Luis Valley. As such, our staff typically participates in numerous meetings regarding water issues. Although some of the typical annual ditch meetings were cancelled because of the Covid crises, most water meetings were conducted via web-link services during 2021. Division 3 staff spent a large number of hours attending these meetings.

During 2021 Division 3 staff attended (virtually) most of the regularly scheduled meetings of the Rio Grande Water Users' Association, the San Luis Valley Water Conservancy District, the Conejos Water Conservancy District, the Rio Grande Water Conservation District, the Closed Basin Operating Committee, the Trinchera Irrigation Company, the Saguache Creek Water Users' Association, The Rio Grande Basin Roundtable, the Acequia Congreso, and all other water user group meetings that we are invited to attend. A multitude of Groundwater Management Subdistrict meetings were attended by Division staff.