

Division 3 Annual Report 2015

Water Administration

For the seventh year in a row, the Rio Grande Basin once again faced below average snowpack during most of the winter. However, due to record precipitation in many locations during the month of May, snowpack and streamflow conditions improved in all areas, especially in the Northern part of the Valley. Basinwide snowpack in Division 3 reached a peak of approximately 75% of average before melt-out.

Due to a warm spring, many of the streams had high flows at the end of March and into early April before cool temperatures and precipitation set in through May. Most of the streams peaked in late May or June. The peak significantly exceeded the long term average yearly peak flow on most streams, which was a surprise given that the forecasts were for less than average yearly flows. For instance, on the Rio Grande, the peak daily flow reached 5,720 cfs, while the average daily flow peak is approximately 3,450 cfs. On the Conejos River, the daily peak in 2015 was 1,790 cfs, compared to an average peak of approximately 1,400 cfs.

Division 3 relies heavily on accurate streamflow forecasts in order to correctly deliver the proper amount of water to the downstream states under the conditions of the Rio Grande Compact. Historically we have used the NRCS to provide these forecasts. Unfortunately, over the last several years the NRCS forecasts have been less than accurate. In 2015 the National Weather Service began providing Division 3 with their Ensemble Streamflow Prediction (ESP) forecast. It was hoped that having this additional forecast would act as a check to the NRCS forecast and provide a better picture of the streamflow to come. Unfortunately, the two forecasts were drastically different from each other, causing even more consternation about which forecast was correct. The May 1 NRCS forecast estimated the April through September flow on the Rio Grande near Del Norte to be 260,000 acre-feet, while the ESP forecast for the same period was for 509,000 acre-feet. Due partly to the higher than average precipitation in May, the actual flow during this time period was 556,000 acre-feet. Similarly, the NRCS forecasted an April through September upper index flow on the Conejos system at 112,000 acre-feet and the NWS forecasted a flow of 246,000 acre-feet. The actual flow was 218,000 acre-feet. Because of the wildly different streamflow forecasts on both stream systems, a streamflow amount in between the two forecasts was chosen. However, this turned out to still be much lower than what actually occurred. It is hoped that the streamflow forecasts in the future will improve greatly, and Division 3 is working closely with Joe Busto of the CWCB to develop innovative solutions to the forecasting problem. Some of these solutions may be the installation of a permanent radar station in the valley, increased Snotel stations, new modeling procedures, or other options.

Compact delivery targets began at 11% on the Rio Grande at the beginning of the irrigation season but fluctuated throughout the season from 0 to 21%. The curtailment for the Conejos system was even more volatile, beginning at 20%, then fluctuating from 0 to 43% throughout the season. As a whole, Colorado was close on its Rio Grande Compact delivery obligations for 2015, with a total of approximately 6,700 acre-feet of credit at the end of the year. This number was composed of an over-delivery by the Rio Grande mainstem of approximately 9,000 acre-feet, and an under-delivery on the Conejos system of approximately 2,300 acre-feet. However, due to an ongoing disagreement between the three compact states as to the accounting methodology to be used, the final compact accounting numbers were once again not ratified by the compact commission at its annual meeting.

The 2015 water year was the fourth year in which Subdistrict #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. As has been explained in more detail in previous annual reports, getting the first subdistrict up and operating was the culmination of nearly six years of water court activity and litigation. However, we were not through with litigation in 2015 as the objectors to the subdistrict appealed a local water court decision to the Colorado Supreme Court in the fall of 2013. Oral arguments were heard on that case in the spring of 2014, and the Supreme Court upheld the local water court in a ruling issued in early 2015.

The State Engineer's irrigation season policy was once again in effect for both the beginning and ending of the irrigation season in 2015. This policy, signed by the State Engineer on April 14, 2010, sets in place the presumptive irrigation season dates of April 1 through November 1 of each year, but also sets certain criteria that could be looked at to adjust these dates. The irrigation season policy allows the Division Engineer to set beginning and ending dates for the irrigation season for both surface and groundwater diverters based upon the unique features of a drainage area, so there are usually different beginning and ending dates for the different sub-basins within Division 3. Diversions for irrigation in Division 3 began with a turn-on date of March 15, 2015 for irrigators on La Jara and Hot Creeks, March 23 on Schrader Creek, and March 27 on Saguache Creek. Irrigators on the rest of the systems were allowed to start on April 1. Most areas of the valley ended the irrigation season on November 1, 2015. However, irrigation in the La Jara Creek drainage was allowed to continue until November 15.

For the second year in a row, the unconfined aquifer gained water in 2015. During 2015, the area involved in the "Rio Grande Water Conservation District (RGWCD) Unconfined Aquifer of the Closed Basin Change in Storage Study" gained approximately 119,000 acre-feet of water. Even with the gains in 2014 and 2015, the study showed that the aquifer contained approximately 1,100,000 acre-feet less water at the end of 2015 than it did in 1976.

Technology both assisted and hindered some in their daily administrative duties. Leading up to the irrigation season, Water Commissioner Spreadsheets were

distributed to the Water Commissioners for their use in collecting and documenting diversion records throughout the year. For those Water Commissioners who adopted the use of the spreadsheet, they were timelier in completing diversion records and were able to incorporate records for additional structures (primarily minor augmentation plans) that had not been kept consistently. The HBDMC Administrative Calls tool was rolled out at the start of the irrigation season. The Water Commissioners for our largest two river systems, Rio Grande and Conejos, were good about updating the tool whenever the call changed. However, we ran into some complications with some of our smaller tributaries where we have divergent streams in that the program was not able to handle these situations. In Water District 20 we also rolled out a new Daily Sheet that was built on top of the Water Commissioner Spreadsheet. This tool automatically pulls in data from the satellite monitoring stream gages and ditches to give the Water Commissioners more confidence in their calculations of available flow and setting of the call each day. Historically, these calculations had been done by hand by all three Water Commissioners who then compared their results to ensure no mistakes were made. The new tool now allows the Water Commissioners to have confidence in the accuracy of the calculations while freeing up time to focus on some of the more complex Subdistrict stream depletion replacement operations. Additionally the Water District 20 Water Commissioners developed a Reservoir Book Excel file that accounts for the different colors of water and ownership of that water in each reservoir. Moving the Reservoir Book from paper to Excel has improved the accuracy of the accounting. Both of these Excel tools have mitigated against data entry errors as there is only one place of data entry now rather than multiple as was in the past.

The State legislation enabling the cultivation and use of marijuana has had a significant impact on the work tasks of Division staff. A relatively large influx of people have moved into Division 3 (and other parts of the state as well) seeking to be able to grow marijuana. Many of the people moving into Division 3 have moved to Saguache and Costilla Counties because those counties allow legal marijuana grow operations. However, many of these people find that the conditions for having a legal grow operation are too restrictive, so we have a large number of small, illegal grow operations. In order to grow plants, these growers need water, and in many cases there is not a legal source of supply readily available to these new 'freedom seekers'. Therefore, we have many instances of people using their in-house use only wells, pumping out of nearby streams without a water right, or in some cases pumping directly out of someone else's ditch without permission to obtain the needed water. During 2015, staff from the Division of Water Resources had multiple meetings with county commissioners, law enforcement, code enforcement, and others from most of the Division 3 counties to try to develop a coordinated plan of action regarding marijuana operations. We have developed a good working relationship with Saguache and Costilla Counties on the review and management of legal grow operations, but the illegal operations are still a big concern.

Stream Administration

Stream administration in Division III during 2015 was challenging due to the less than average snowpack at the beginning of the irrigation season, the large amount of precipitation during the late spring, high flows during the runoff period, and then lower flows through most of the remainder of the summer. The peak of the runoff occurred in late May or very early June for most rivers and streams in Division 3, which was close to the time of the normal peak. However, the magnitude of the peaks throughout the division were generally higher than average. Base flows were reached on most streams by the middle of July, with the exception of those streams in the northern portion of the San Luis Valley. Saguache Creek, San Luis Creek, and their tributaries experienced higher flows than have been seen in years, and also experienced some minor flooding events during the runoff season.

Ground Water Metering Issues

The Division 3 Well Metering Branch would like to welcome three new individuals to the group. These persons are, James Stephenson (Technician II), Josh Adams (Technician I) and Michael D'Errico (Technician I). The addition of Trina Riviera in Office Support in mid-April of 2016 will bring the group to full strength and looking forward to a successful future. In 2015, we were able to upgrade the two Technician Assistant positions to Technician I positions. We are excited for this change and look forward to an increase in well meter testing done by DWR. We have had a goal of accomplishing 400 meter tests by DWR employees the past several years but due primarily to equipment issues and some vacant positions we have not met those goals. In 2015 we did acquire new ultrasonic test meters bringing our total ultrasonic meter count up to three reliable meters. This, with the additional staff that will be testing, hopefully will enable us to reach our goal of 400 meters being tested in 2016.

There were around 400 Notice of Violations for expired meters that were sent in 2015. Overall, the response to meters getting tested this year went quite well. There were over 2000 meters that needed to be tested and many of them were tested before we needed to issue a Notice of Violation. This was due in part to the work of the private testers and DWR sending a courtesy notice closer to the start of the irrigation season than was the case in previous years. We also sent approximately 40 Notice of Violation and/or Cease and Desist letters for minor violation and malfunctioning equipment. We did not have any well metering issues in 2015 that we needed the assistance of the Office of The Attorney General.

WATER ISSUES

The biggest water event of the year in Division 3 was the completion of the Rules and Regulations concerning groundwater use in Division 3. The process to develop these rules was started in 2009 with the formation of an advisory committee to assist the State Engineer with the rules. In September 2015, these rules were signed by the State Engineer and submitted to the Division 3 Water Court. Water users and others then had an opportunity to formally object to the rules in court. At the end of the objection period, 30 individuals or entities had filed statements of objection. However, approximately 10 of these were 'statements of objection in support' of the rules. None of the remaining 20 statements objected to the rules as a whole but only certain parts of them. The DWR will begin consultations with these objectors in the near future to try to work out solutions to their concerns and hopefully avoid a court trial.

The rules require groundwater users to mitigate their injurious depletions to senior water rights. This can be done in three ways;

First, the well user may opt to develop an augmentation plan to offset any injurious depletions. These types of plans can be approved on a short term temporary basis through a Substitute Water Supply Plan, or on a permanent basis through water court.

Second, the well user may wish to join a subdistrict. These subdistricts will in many ways act as a very large augmentation plan. The subdistricts will collect fees from their constituents and use that money in various ways, such as purchasing augmentation water, constructing recharge facilities, paying senior water rights holders for injurious depletions, etc.

Third, if a groundwater user does not wish to attempt either of the first two options, 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. For the confined aquifers, the benchmark for sustainability is their condition during the 1978 to 2000 time period. However, due to the minimal amount of good aquifer data from this time period, the State Engineer has developed a proxy method for sustainability. The rules now require that groundwater pumping in the various response areas be held to the same amount as to that of the average pumping throughout the period 1978 to 2000 for the first 10 years after implementation of the rules. During this time, additional studies will be done and data collected to more accurately determine the condition of the aquifers from 1978 to 2000. Depending upon the results of that study, a different metric for meeting the sustainability goals may be developed.

The Rio Grande Water Conservation District (RGWCD) is continuing to encourage the formation of groundwater Subdistricts to attempt to manage portions of the aquifer system. These types of Subdistricts were recognized in Senate Bill 04-222. They have as their goals to stabilize the aquifers associated with each Subdistrict, prevent injury to senior rights, restore the historic stream-aquifer connection, and promote a sustainable aquifer system. The first subdistrict, Subdistrict #1, became operational in May 2012.

Every year the subdistrict has to submit an Annual Replacement Plan (ARP) detailing their plans for the replacement of depletions and aquifer sustainability for the upcoming year. May 1, 2015 began the subdistrict's fourth plan year.

The formation of other Subdistricts in the Trinchera drainage, Rio Grande alluvium, Conejos area, Saguache area, San Luis Creek area, and Alamosa-La Jara Creek area are all proceeding. Modeling results and response function determinations from the RGDSS model were made available to these subdistrict groups in the early fall of 2015, so now they know what depletions their wells are causing to senior surface water rights. With this information, all of the subdistricts began making greater progress in the development of their own plans. Subdistrict #2, the alluvial subdistrict generally lying on the south side of the Rio Grande, is closest to completion. The process to collect petitions for inclusion into this subdistrict was complete at the end of 2015, and it is anticipated that this subdistrict will be filing its petition for establishment of its boundaries with the court in early 2016.

Rio Grande Compact Issues

The Rio Grande Compact apportions water between the states of Colorado, New Mexico, and Texas. Over the last several years, controversy has erupted regarding various aspects of the compact, as well as endangered species issues that may affect compact operations.

In 2011, the Bureau of Reclamation unilaterally decided to release some of Colorado's and New Mexico's credit water stored in Elephant Butte Reservoir in New Mexico and send it down to the irrigators below the reservoir. The Bureau's intention was to repay that water back to the states at the end of the irrigation season. However, by deciding to release the water without the states' permission, the Bureau violated one of the tenants of the compact and prevented Colorado and New Mexico from storing a like amount of water, by exchange, into upstream reservoirs. This action has caused all three states to develop their own accounting for compact deliveries. As such, there continues to be no agreement on compact accounting.

In 2012, the State of Texas petitioned the United States Supreme Court to bring suit against New Mexico and Colorado, claiming violations of the Rio Grande Compact. In late 2013 the Supreme Court accepted Texas' petition. The suit is mainly against New Mexico, but Colorado is named because we are a party to the compact. The case revolves around groundwater pumping below Elephant Butte Reservoir in southern New Mexico that Texas claims is injuring its right to surface water. Texas made several other claims that, while directed against New Mexico, could have negative consequences for Colorado. A Special Master, A. Gregory Grimsal, was assigned to the case in 2014 by the U.S. Supreme Court. Mr. Grimsal is an attorney from Louisiana with no background in western water law or water compacts, so he has been spending much of his time trying to learn the intricacies of this very complex branch of law. In

August 2015, hearings were held on two motions in this case. The first was a motion from the State of New Mexico to dismiss the case, and the second was a motion from the Elephant Butte Irrigation Company to intervene in the case. As of the end of 2015, we are still awaiting the Special Master's decision on both of these motions.

The Rio Grande is home to several important endangered species. One is the Silvery Minnow, which resides mainly in the Rio Grande in New Mexico. Due to the ongoing drought conditions on the Rio Grande, the minnow is not faring well. Even though Colorado has been meeting or exceeding its yearly obligations to send water downstream to New Mexico under the Rio Grande Compact, federal agencies and environmental groups downstream are beginning to broach the subject of Colorado sending additional water, or more water during certain times of the year, for endangered species efforts. We are very concerned about the direction that these groups may be headed and believe that we are doing all that we are required to do and more in relation to water deliveries to the downstream states.

The other endangered species of concern are the Southwestern Willow Flycatcher and the Yellow Billed Cuckoo. The Fish and Wildlife Service designated critical habitat for the flycatcher in 2013. This designated habitat area included portions of the Rio Grande and Conejos rivers in Colorado. The ongoing critical habitat designation for the federally threatened Yellow Billed Cuckoo looks to be very similar to that of the flycatcher. The designation of critical habitat in Colorado was done despite the Habitat Conservation Plan (HCP) established by the Rio Grande Water Conservation District. The HCP provides protection of the flycatcher and cuckoo habitat in the San Luis Valley. Therefore, the critical habitat designation in light of the HCP is superfluous.

In late 2015, The US Fish and Wildlife Service began a 90 day review process for possible listing of two other species that have habitats in the Upper Rio Grande. These are the Rio Grande Chub and the Rio Grande Sucker. In the past several years, The Wild Earth Guardians has petitioned the USFWS to federally list both species, and that review has just begun. If the Service decides that these two species meet the fairly low bar of the 90 day review, they will move onto a more comprehensive year long review to make the final decision on listing.

INVOLVEMENT IN THE WATER USER COMMUNITY

As always, we endeavored to be as involved as possible in the water user community during 2015. Our staff attends 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, San Luis Creek Water Users Association, and all other water user group meetings that we are invited to attend.

We also strive to keep the public at large informed of water issues by sitting for interviews in the local newspapers and discussing important issues on local radio stations.

Additionally, the staff has given presentations to various elementary and high schools around the Valley and volunteered as judges at the Regional Science Fair. The Water Commissioners make themselves available and attend many of the ditch company meetings held in their districts. We have actively participated in the San Luis Valley Wetlands Focus Group, the RGDSS Advisory Team, the Rio Grande Compact Commission Salinity Committee, the Rio Grande Headwaters Restoration Project, and many other public forums which require input on water issues. The Division Engineer is also a commissioner on the Rio Grande Natural Area Commission.

The Division staff have attended and provided input on the formation of Subdistricts throughout the valley under SB04-222 and in the development of service plans for these numerous subdistricts.

The Division Engineer has been attending the Rio Grande Basin Roundtable meetings as an adviser to the Roundtable. The meetings have been an opportunity to provide education on water issues to a large group of individuals with varied backgrounds and interests. The Roundtable has been evaluating water project funding proposals for submission to the CWCB and the Division Engineer is routinely requested to give his input into these evaluations. The Roundtable group was also involved in the formulation of the Rio Grande portion of the State Water Plan.

The staff of Division III participated in a number of public forums relating to water. Division employees have also been involved in a number of conferences and seminars in the San Luis Valley and beyond concerning water in Division 3. The level of interest is very high, especially regarding the well metering program, subdistricts, and the upcoming well use Rules and Regulations.

In addition to these meetings, Division staff have also been involved in the Water Leaders' Course sponsored by the RGWCD and the SLVWCD. This one-week course is designed for those members of the public that are interested in developing the knowledge needed to become leaders of the water community. The sponsors typically select 20-25 individuals to participate in this annual course.

When asked to present, Division staff attend meetings of the San Luis Valley Board of Realtors. These sessions allow Division employees to pass on vital information to the realtors regarding well use, irrigation season, etc.

Water Court Activity

Chief District Judge Pattie Swift continued to serve as Water Judge. Water Referee Patrick Hayes was selected as the fourth District Court Judge during 2015 and

relinquished his duty as Referee. Nicolas Sarmiento was selected to succeed Hayes as the new Water Referee for Water Division 3.

A significant case from the San Luis Valley was heard before the Supreme Court in 2015. Case No. 14SA234, Frees v. Tidd (from 10CW13) upheld the water court's judgment entering a conditional water right decree for a non-consumptive hydropower use water right diverted from the Garner Creek Ditch No. 1 in northeast Saguache County. In a split decision, the Supreme Court upheld the water court's finding that water is available for non-consumptive conditional appropriation from another water user's ditch. Tidd properly obtained a judicial declaration of no material injury to ditch and water right interest owned by Frees in connection with a ditch easement located on Tidd's property.