

Division 3 Annual Report 2013

Water Administration

For the fifth year in a row, the Rio Grande Basin once again faced below average snowpack and streamflow conditions. Snowpack in Division 3 during the winter of 2012-2013 was below average the entire winter season, and it was the lowest snowpack that Division 3 had experienced since 2003. At its peak, the snowpack was only approximately 70% of the average peak.

On most streams a warming trend brought about a minor peak of flows near the first of May. However, a cooling trend helped to delay the main peak flow on most streams to a time closer to the average peak date of the latter part of May. While this spring peak was close to the amplitude of average peak flows on most streams, the ramp down from the peaks did not follow the average trends at all. For instance, on the Rio Grande, the streamflows peaked at approximately 3,500 cfs for a daily average in mid May. The flows then rapidly decreased, reaching 500 cfs by mid June and approximately 300 cfs by July 1. The average flow of the Rio Grande in mid June is approximately 3,000 cfs, and by July 1 the flow should still be approximately 2,000 cfs.

A very strong monsoonal flow in September caused the streamflows of area streams to once again peak. On a limited number of streams, the September peak was actually slightly higher than the spring peak. However, Division 3 did not see the very large flood flows or the widespread flooding damage that the front range experienced from these monsoonal events.

Division 3 relies heavily on the NRCS to provide accurate streamflow forecasts in order for us to correctly deliver the proper amount of water to the downstream states under the conditions of the Rio Grande Compact. The May 1 NRCS forecast estimated the April through September flow on the Rio Grande near Del Norte to be 225,000 acre-feet. The actual flow during this time period was 344,000 acre-feet. Similarly, the NRCS forecasted an April through September upper index flow on the Conejos system at 113,000 acre-feet. The actual flow was 127,000 acre-feet. However, the main reason that the NRCS forecasts were not very accurate was the large rain events in August and September. The percentage of the total flow that Colorado is required to deliver under the compact goes up as the annual flows increase. Therefore, this hard to predict weather pattern can cause major problems with delivery obligations on the Rio Grande and the Conejos, as may be seen by the changing curtailments throughout the irrigation season. Compact curtailment began at 6% on the Rio Grande at the beginning of the irrigation season. The curtailment then dropped at the beginning of May and varied from 0% to 5% through August 6. At that time the rains had begun to increase the river flows and the curtailment was increased proportionally. In

incremental steps, the curtailment went from 7% on August 7 to 18% by mid September.

Because of the low expected streamflows on the Conejos system, and the resulting low required delivery to the downstream states, the irrigation season began with no curtailment of ditches on that system. This zero curtailment continued throughout the irrigation season because the smaller rain events on the Conejos system were not enough to drastically change the delivery obligation.

The 2013 water year was the second 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 2013 as the objectors to the subdistrict appealed various portions of the Annual Replacement Plan to the District Water Court. After the Water Court ruled in favor of the subdistrict, the objectors appealed that decision to the Colorado Supreme Court in the fall of 2013. A ruling on that appeal is still pending.

The State Engineer's irrigation season policy was once again in effect for both the beginning and ending of the irrigation season in 2013. This policy, signed by the State Engineer on April 14, 2010, set in place the presumptive irrigation season dates of April 1 through November 1 of each year, but also set 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 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 12, 2013 for irrigators on La Jara and Lower Rock Creeks, March 18, 2013 for those on Schrader Creek, and March 25 for the Conejos River system. Irrigators in the Culebra Creek drainage basin were allowed to start on April 1. The irrigation season began on Saguache Creek, Carnero and La Garita Creeks, San Luis Creek, Trinchera Creek, and Alamosa Creek drainage areas on April 1, 2013. The Rio Grande system turned on for diversions on April 8. Most areas of the valley ended the irrigation season on November 1, 2013. However, due to the over delivery of compact water on the Conejos system, that area was allowed to continue the irrigation season until November 18, 2013. As a whole, Colorado was close on its Rio Grande Compact delivery obligations for 2013, with a total of approximately 5,300 acre-feet of credit at the end of the year. 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 not ratified by the compact commission at its regularly scheduled meeting.

Due to the ongoing drought conditions in Division 3, the unconfined aquifer continues to decline. From January to September, the area involved in the "Rio Grande Water Conservation District (RGWCD) Unconfined Aquifer of the Closed Basin Change in

Storage Study” lost approximately 150,000 acre-feet of water. However, the large monsoon brought much needed water into the recharge area and brought the aquifer levels up nearly 100,000 acre-feet in the last months of the year. For the calendar year the aquifer only lost approximately 50,000 acre-feet. Even though the aquifer’s loss in 2013 was the lowest since 2009, it was still a loss, and it brought the aquifer to new lows. The study showed that the aquifer contained approximately 1,250,000 acre-feet less water at the end of 2013 than it did in 1976.

Stream Administration

Stream administration in Division III during 2013 was challenging due to the low flows during the runoff period and through most of the summer, and then the higher monsoonal driven flows that were experienced in August, September, and October. The peak of the runoff occurred in mid to late May for most rivers and streams in Division 3, which was close to the time of the normal peak. The magnitude of the peaks throughout the division were also near average. However, the ascending and descending legs of the peak were generally steeper than usual and base flows were reached on most streams by the first of July. Around the first of August the monsoonal rain events began throughout the division, bringing the streamflows up from their very low previous amounts to levels that were near average. The rain events that were experienced in the latter half of September raised the streamflow levels to well above average on most streams, with a few streams even reaching their peak for the year during this time. However, division 3 did not experience any of the devastating flooding that occurred along the front range

Ground Water Metering Issues

The Division 3 Well Metering Branch began the 2013 irrigation season fully staffed for the first time in many years with the addition of Geoff Warden joining the well metering group on April 1. The well tech assistants made great efforts and were able to make site visits to all the wells that are operating under a variance to the measurement rules allowing multiple wells to be served by a single meter. There are over 800 of these variances. They were also able to visit and tag almost all of the wells that have inactive variances of which there are approximately 1,500 in Division 3.

There were a total of 32 Non-Compliance letters that were sent this year to well owners in Division 3. Most of these issues were able to be resolved without assistance from the Attorney General’s Office. We have sought the assistance of the Attorney General’s Office to resolve four (4) issues in the ground water area. The issues were, 1) Using water on land not decreed for the well, 2) Excessive flow outside of the irrigation season and 3) Failure to report annual pumping. There were also approximately 300 notices of expired meters sent to well owners this year.

We look forward to 2014 and being fully staffed in the Groundwater department. Having the department fully staffed will allow us to visit more wells. Our goal this year is to perform 400 meter tests as well as visit all those with variances to the Measurement Rules. Being fully staffed and the time savings from HBDMC should allow us to accomplish these goals.

West Fork Fire Complex

The West Fork fire complex consisted of the West Fork Fire, the Papoose fire, and the Windy Pass Fire. The fire began on June 5, 2013 with a lightning strike in a remote wilderness area at the head of the Rio Grande along the Continental Divide. During the first several weeks of the fire, the Forest Service's plan for dealing with the fire was "confine and control", meaning that they did not put much emphasis into aggressively fighting the fire. By the time that the Forest Service decided to aggressively attack the fire, it had grown substantially and was threatening several locations, including Rio Grande Reservoir and the town of South fork. On the morning of June 20, the plan was still "confine and control". However, later that day the fire exhibited "unprecedented and undocumented" fire behavior, causing it to more than double in size and travel more than 8 miles towards South Fork. That day the town of South Fork and surrounding communities were ordered to evacuate. On June 21 and 22, a valiant effort was made to save the town of South Fork, with 32 fire engines in the town. A well timed wind shift stopped the fire just a few miles from the town, but the fire was now at 40,000 acres burned. By June 28, the fire had grown to 90,000 acres in size and there were nearly 1,600 personnel fighting the fire, with 20 aircraft assisting, and it was still 0% contained. By July 18, some of the summer rains had begun and the fire was believed to be 66% contained. Many of the firefighters had been taken off the fire lines and the worst of the danger from the fire was over. The total burned area of the fire complex ended up being in excess of 110,000 acres, making it the second largest wildfire in Colorado history. Miraculously, no houses were lost in the blaze.

WATER ISSUES

For the last several years, the Rio Grande Water Conservation District (RGWCD) has encouraged 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 Supreme Court issued a ruling in December of 2011 that allowed the first subdistrict, Subdistrict #1, to move forward and put their plan into action by May 1, 2012. The subdistrict's plan year goes from May 1 to April 30, crossing over the calendar year and water year time periods. This complicates issues when administering the plan, but it is necessary given the timing needs for the determination of the replacements, the funding sources, etc. The injurious depletions that the first subdistrict is replacing are on the order of 6 to 7 cfs, and this water was

generally released from upstream reservoirs. However, the subdistrict did engage in a 'forbearance' contract with the Rio Grande Canal wherein the canal would take money instead of replacement water if they were the water right being injured by the subdistrict wells on a certain day. Replacement water, or forbearance, was paid to the river each and every day of the season, which for the first year of operation was a major accomplishment and underscores the dedication of our water commissioners to work in concert with the subdistrict to ensure that the plan was successful. In May 2013 the second Annual Replacement Plan for subdistrict 1 was put into place. Although there were still hurdles to overcome in the administration of the plan, the second year seems to have gone a bit more smoothly than the first.

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 proceeding. All of these subdistricts are eagerly awaiting the modeling results from the RGDSS model so that they will know what depletions their wells are causing to senior surface water rights. As soon as the model results are known, the other subdistricts can push forward with their development and rapidly file their own plans.

The State Engineer is currently in the process of developing Rules and Regulations concerning the use of Groundwater in Division 3. He is being assisted in this effort by an advisory committee comprised of approximately 55 individuals representing groundwater users, surface water users, governmental agencies, etc. The goal of this advisory group is to assist in developing rules and regulations on the future use of groundwater so that senior water rights are protected and the groundwater aquifers are brought into a sustainable position. Based upon results of studies done using the Rio Grande Decision Support System (RGDSS) water model, it has been determined that most of the wells in Division 3 have some effect on senior surface water rights. Therefore, the rules will 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 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 their wells.

The majority of the work in developing the rules has been accomplished, but we are awaiting final modeling results so that we can develop the sustainability portion of the rules and complete the process.

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 been brewing 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 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.

The State of New Mexico's lawsuit against the Bureau of Reclamation over their 2011 action has been stayed pending the outcome of the United States Supreme Court case brought by Texas.

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 water. Texas made several other claims that, while directed against New Mexico, could have negative consequences for Colorado. We are actively involved in drafting responses and in preparation for the possibility of a long, drawn out Supreme Court case.

The Rio Grande is home to two 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 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 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 in relation to water deliveries to the downstream states.

The other endangered species of concern is the Southwestern willow flycatcher. 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 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's habitat in the San Luis Valley. Therefore, the critical habitat designation in light of the HCP is superfluous.

In 2013 The US Fish and Wildlife Service began the evaluation process for possible listing of two other species that have habitats in the Upper Rio Grande. These are the Yellow Billed Cuckoo and the Rio Grande Cutthroat Trout. We have provided comments in opposition to these possible listings and are awaiting the USFWS decisions.

INVOLVEMENT IN THE WATER USER COMMUNITY

As always, we strived to be as involved as possible in the water user community again in 2013. 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, 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. 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, Upper Rio Grande Water Operations Model Advisory and Technical Teams, 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 SB222 and in the development of service plans for these numerous subdistricts.

The Division Engineer has been attending the Rio Grande 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 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 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 recently resurrected Water Leaders' Course. This course is designed for those members of the public that are interested in developing the knowledge needed to become leaders of the water community.