

Division 3 Annual Report 2012

Water Administration

In 2012 the rest of the state joined Division 3 with low snowpack and runoff conditions. While Division 3 had been experiencing low snowfall and streamflow conditions since 2009, the majority of the state had experienced average to well above average snowfall and streamflow conditions during that same time, but 2012 brought everyone into the drought category. Snowpack in Division 3 during the winter of 2011-2012 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 at approximately 75% of the average peak.

Due to the unusually warm conditions and several dust-on-snow events throughout the winter, the runoff occurred earlier than usual for most of the drainage basins in Division 3. On most of the stream systems in Division 3, the flows in April and early May were higher than the average for that time of year. However, by mid May the streamflows dropped below average. By the time that the streams usually peak in late May to early June, the streamflows were significantly lower than the average, and they remained lower than average the rest of the irrigation season. The peak flow on the Rio Grande near Del Norte was approximately 85% of average, while the peak flow on the Conejos River near Mogote was only approximately 70% of average.

The runoff flows on both the Rio Grande and the Conejos rivers were actually lower than expected, and led to dropping forecasts through the spring. Compact curtailment began at 15% on the Conejos and 10% on the Rio Grande at the beginning of the irrigation season. By the beginning of May the Conejos curtailment was down to zero and the Rio Grande curtailment was at 2%. Even though there was no more curtailment throughout the rest of the irrigation season on the Conejos system, there was still an overdelivery of compact water from the Conejos of approximately 7,000 acre-feet.

The 2012 water year was the first 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. Getting to this place with the first subdistrict was the culmination of nearly six years of water court activity and litigation that ended with the approval to go forward from the state Supreme Court in December of 2011. Replacements to the Rio Grande began on May 1, 2012 and continued throughout the 2012 calendar year. This noteworthy event is explained in more detail later in this report.

The State Engineer's irrigation season policy was in effect for both the beginning and ending of the irrigation season in 2012. 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 may be different beginning and ending dates for the different sub-basins within Division 3. The irrigation season policy has been in place through several irrigation seasons, but some water users have still not come to embrace it. We did have a few local protests to the beginning of the irrigation season in 2012. There was also a protest that was submitted to the State Engineer in March 2012. This protest was to the Division Engineer's determination of the beginning of the irrigation season. The State Engineer subsequently found that the determination by the Division Engineer was proper and the protest was dismissed. Diversions for irrigation in Division 3 began with a turn-on date of March 21, 2012 on the La Jara Creek and Culebra Creek drainage basins. The irrigation season began on the Rio Grande, Saguache Creek, and Carnero and La Garita Creek drainage areas on March 29, 2012. San Luis Creek and Trinchera Creek drainage areas began diversions on April 1, 2012, and the Conejos River system began diversions on April 2, 2012. Most areas of the valley ended the irrigation season on November 1, 2012. However, due to the overdelivery of compact water on the Conejos system, that area was allowed to continue the irrigation season until November 30, 2012. As a whole, Colorado was close on its Rio Grande Compact delivery obligations for 2012, with a total of 6,300 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. During 2012 the area involved in the "Rio Grande Water Conservation District (RGWCD) Unconfined Aquifer of the Closed Basin Change in Storage Study" lost over 123,000 acre-feet of water. This significant loss caused the aquifer to drop to the lowest levels ever recorded, significantly lower than that amount in the aquifer after the devastating drought years of 2002-2004. The study showed that the aquifer contained approximately 1,200,000 acre-feet less water than it did in 1976.

Stream Administration

Stream administration in Division III during 2012 was challenging due to the above average flows early in the season and then the significantly below average flows the remainder of the year. In April, a rapid warming trend brought out the snow in a short time period, causing the peak flows on most rivers and streams to occur up to a month earlier than usual. Almost as soon as it occurred, this peak period was gone and the flows once again dropped to much below normal amounts on most streams. The dry

summer that followed only caused the flows to continue dropping lower than average. The NRCS forecasts for basin yields on both the Rio Grande and Conejos had to be routinely downgraded throughout the spring forecasting period.

Ground Water Metering Issues

2012 marks the year that the groundwater group transitioned completely to the HydroBase Data Management Console (HBDMC) to manage all the data entry and record keeping. In addition to the data management within HBDMC, all of the end of year calculations for well pumping were performed within HBDMC. Our first run with this process took place when we again assisted Sub District #1 with their end of year pumping calculations. Many hours of work were required by the staff in setting up and fixing the bugs and glitches in the first rendition of the tool to properly calculate the pumping totals of the wells. The time savings and ability to do more and better QA/QC on the data make the time spent on the tool worth it as it will cut the time we will spend on future calculations almost in half.

There were a total of 48 Non-Compliance letters that were sent this year to well owners in Division 3. These issues were able to be resolved without assistance from the Attorney General's Office. There were also approximately 350 notices of expired meters sent to well owners this year.

There were a total of 1,033 certified meter tests that were performed by the independent testers in Division 3 in 2012. This year, DWR staff were able to perform 170 tests on meters installed on wells in Division 3. This is short of what we had hoped to accomplish in this area. Contributing factors to this were the time spent setting up HBDMC and assisting Sub District #1 with their end of year calculations. Also, during the beginning of the irrigation season, staff were under mileage restrictions which prevented us from visiting as many wells as we would have liked.

We look forward to 2013 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.

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 would 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. In late spring of 2010 the Division 3 Water

Judge approved the plan for water management of Subdistrict #1. The approval meant that Subdistrict #1 could go forward and begin replacing depletions starting in 2012. However, this approval of the plan was appealed to the Supreme Court. The Supreme Court issued a ruling in December of 2011 that upheld the Water Judge's ruling, allowing the subdistrict to move forward and put their plan into action by May 1, 2012. This began a mad scramble by the Rio Grande Water Conservation District, Subdistrict #1, and the Division of Water Resources to get the plan into operation by the May 1 deadline. Many hours were spent by DWR personnel in assisting the subdistrict and in planning for the administration of this new type of "augmentation plan." The subdistrict did begin replacing their injurious stream depletions to the Rio Grande on May 1, 2012. This replacement of depletions will continue on a daily basis for the life of the subdistrict. The injurious depletions were 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.

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. The State of New Mexico sued the Bureau over this decision in 2011. While Colorado did not join in the lawsuit, we have filed briefs in support of New Mexico's claims. We are awaiting the outcome of this important court case.

In 2012, the State of Texas brought suit against New Mexico and Colorado in the United States Supreme Court claiming violations of the Rio Grande Compact. 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, the US Fish and Wildlife Service is beginning to broach the possibility of Colorado sending additional water for endangered species efforts. We are very concerned about the direction that the USFWS 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 began the process of designating critical habitat for the flycatcher in 2012. We believe that there should be no designated critical habitat in Division 3 because of the Rio Grande Water Conservation's efforts to establish a Habitat Conservation Plan (HCP) for the San Luis Valley. Critical habitat designation in light of the HCP would be superfluous.

INVOLVEMENT IN THE WATER USER COMMUNITY

As always, we strived to be as involved as possible in the water user community again in 2012. 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 member of 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. The Division Engineer has 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.