COLORADO DIVISION OF WATER RESOURCES

Division 3

2008 Annual Report

COLORADO DIVISION OF WATER RESOURCES
ANNUAL REPORT
DIVISION III - 2008

INDEX

ACCOMPLISHMENTS

Water Administration

The year 2008 started off with a bang. The snowpack in the basin as of January 1, 2008 was 137% of normal, and by February 1 it was at 168% of normal. The snowfall continued through February, with the resulting snowpack at 164% of normal by March 1. In March, employees from the Division of Water Resources began attending meetings in various areas of the valley to warn residents of the probability of high and possibly damaging flows to come. However, by mid-March, the snowfall stopped. The April 1 snowpack dropped to 136% of normal, and the promise of a very large runoff evaporated along with the snow.

The April 1st projection of annual streamflow was 935,000 acre-feet on the Rio Grande (149% of normal) and 540,000 acre-feet on the Conejos River system (174% of normal). By June 1st the projected annual index had dropped to 800,000 acre feet on the Rio Grande and 447,000 acre-feet on the Conejos. It turned out that even this precipitice drop in streamflow estimates was not steep enough as the Rio Grande ended up with an annual flow of 710,000 acre-feet and the Conejos System with an annual flow of 402,000 acre-feet at the end of 2008. With the initial spring forecasts calling for a very large obligation to downstream states, the diversions on the rivers were kept off until April 14. The Rio Grande began the irrigation season with a 31% curtailment and the Conejos system began with a 52% curtailment. As the season progressed and it became obvious that the initial forecasts were too high, the curtailment was dropped on both rivers. Not only was the spring dryer than usual, but the summer rains did not materialize as expected. This led to the continuing decline in streamflow throughout the valley, and the associated decline in curtailment. Unfortunately, a large portion of the decrease in the projected forecast came after the peak of the runoff, so steep drops in curtailment percentages were required later in the season to 'catch up' with the final forecast. On August 6, the curtailment was completely removed from the Rio Grande, and by September 15 it was removed from the Conejos system as well

The area involved in the "Rio Grande Water Conservation District (RGWCD) Unconfined Aquifer of the Closed Basin Change in Storage Study" gained approximately 14,000 acre feet in 2008. This gain was much less than what had been anticipated early in the year with the large snowpack. Farmers with little or no surface water had to rely on their groundwater production more than in some years due to the dearth of precipitation during the irrigation season.

Diversions for irrigation were allowed to continue until November 5th on the Conejos system and until November 9th on the Rio Grande due to the probability of over-delivery of compact water to the downstream states. On November 9, ditches with decreed winter recharge rights on the Rio Grande were allowed to begin diverting their recharge water. In all, seven ditches diverted a total of

approximately 18,500 acre-feet of recharge water from November 9 until December 12. Colorado ended the year with a total of approximately 10,600 acre feet of credit, with most of that total attributable to the Rio Grande.

2008 was the first year since 2003 That Colorado's post-compact reservoirs were not under article 7 restrictions. This allowed post-compact reservoirs to store and carry over water. Platoro Reservoir began storing water on October 15. This is earlier than is usual for the reservoir because of work that needed to be done on the outlet pipeline. The interior of the pipeline, in a nearly ½ million dollar project, was re-painted with specialized paint to withstand the very high water velocities flowing through the pipe.

Rio Grande Compact Administration

As was mentioned in the previous section, the administration of the Rio Grande Compact was again challenging in 2008. With the high forecast at the beginning of the irrigation season, ditches on both rivers were held off from diverting until April 14. When the rivers were turned on at the beginning of the season, water users faced a large curtailment. As the forecasted streamflows continued to drop throughout the spring, the curtailment percentages also dropped. At the end of the irrigation season, the Rio Grande was looking at a forecasted over delivery of approximately 25,000 acre-feet. After the irrigation season was over the ditches on the Rio Grande with winter recharge decrees were allowed to divert. These ditches diverted approximately 18,500 acre-feet of water.

Overall, Colorado started the year with an accrued credit of 7,200 acre-feet as of January 1, 2008, and ended the year with a total accrued credit of 10,600 acre-feet. Irrigation diversions on the Rio Grande and Conejos began April 14, 2008 and ended on the Conejos on November 4, and on the Rio Grande on November 8. The Conejos system started 2008 with 800 acre-feet of accrued intrastate credit. However, the inability to operate the gates at Platoro Reservoir in winter resulted in 1,200 acre feet being stored by Jan 31st 2008 despite the provisions of Article VII of the Rio Grande Compact. On the 29th of February, 2008, Texas agreed to a relinquishment of 1,200 acre feet of credit in Elephant Butte in return for the water stored in Platoro.

The release of water from Rio Grande Project Storage in 2008 totaled 676,400 acre-feet. This is approximately 86% of a normal release for the Project. Usable Project Storage at the beginning of 2008 was below 400,000 acre-feet. It rose above 400,000 acre-feet on February 1, and stayed above that level for the remainder of the year.

Over the last 7 years, Usable Project Storage has been fluctuating above and below 400,000 acre feet. Consequently, Article VII of the Compact has been invoked and lifted several times. Article VII prevents the upstream States from increasing storage in any post-Compact reservoir without relinquishment. The major Colorado reservoir affected is Platoro Reservoir. Colorado continues to

take the position that the Conejos can re-regulate pre-compact direct flow rights in Platoro as long as they are released in the same season. Project storage was below 400,000 acre feet at the beginning of 2008. Thus the 2008 season began with a limitation on project storage.

The U.S. Bureau of Reclamation (USBR) has taken the position that they can store 'Prior and Paramount' rights for the New Mexico Pueblos in El Vado Reservoir regardless of the status of Article VII. The Commission has historically opposed this action to no avail.

In 2008, Reclamation continued its carryover storage procedures for the districts below Elephant Butte reservoir. The districts have unequal shares of the project water and historically unused water was simply reallocated the next year. This was not an incentive to conserve. Reclamation developed a formula in cooperation with the districts that seems to fairly distribute the water. At the end of 2008, The El Paso County Water Improvement District No. 1 (EP #1) had carryover storage in Elephant Butte Reservoir of 232,882 acre-feet, while the Elephant Butte Irrigation District (EBID) did not have any carryover storage.

The Rio Grande Compact meeting was held on March 27, 2008, in Santa Fe, New Mexico. This was the first meeting for new State Engineer Dick Wolfe in his role as Colorado's Compact Commissioner.

Costilla Creek Compact Administration

The Costilla Creek Compact Commission met in Alamosa, Colorado, on May 8, 2008. The Engineer Advisors continue to review the 2005 Watermaster Operating Manual for possible improvements. However, the operations criteria as outlined in the manual seem to be working well for both states.

It was possible to deliver the 1,000 acre feet to Eastdale Reservoir by April 22, 2008, before the irrigation season started. Direct flow diversions were then allowed prior to the irrigation season. At the start of the 2008 irrigation season, May 16, 2008, Costilla Reservoir held 12,936 acre feet. The Commission determined that, based on the NRCS snowpack-forecast of 22,400 acre-feet, and the estimated yield of the Costilla Reservoir System of 33,500 acre-feet, there would be a full supply available for the year.

Luis Trujillo retired as the Watermaster after the 2007 season ended. 2008 was the first year in which Wilfred Lucero was the Watermaster on the Costilla Creek system. Wilfred had been the assistant Watermaster for a number of years and has a good grasp of the system. The Watermaster used the spreadsheet developed by New Mexico to track the daily water deliveries and to determine the delivery amounts available to each ditch. With the Operations Manual and the spreadsheets, administration has settled down to a fairly routine affair. The Watermaster e-mailed a daily diversion sheet (most days) to the Colorado Engineer Advisor.

On April 2, 2008, the Engineer Advisors for Colorado and New Mexico concurred that releases from the Costilla Reservoir were prudent based on current runoff forecasts and to help protect the Costilla/Garcia and Amalia inhabitants from potential flooding. From April 4 to April 22 a total of 900 acre-feet were released from Costilla Reservoir.

New Mexico and Colorado are concerned with the increasing costs and decreasing cost share that the USGS is charging for the operation of the Costilla gaging stations. The USGS operates six streamflow gaging stations and one reservoir station. Five of the six streamflow stations are only operated for 6 months per year. According to the USGS, the total cost to operate these stations in FY 2008 was $61,482. Of that, the USGS paid $23,978, or 39%, and the Costilla Compact Commission was billed for $37,504, or 61%.

The Engineer Advisers were tasked with reviewing the operations of Costilla Reservoir to determine if the three inflow gages need to be maintained or if Reservoir elevations are accurate enough to determine inflows for daily administration. There seemed to be a large discrepancy on some days between the three inflow gages and the calculated inflow based upon the reservoir data. It was discovered in 2008 that the daily reservoir storage values provided by the USGS station at the reservoir were rounded to the nearest 100 acre-feet. This rounding was the main cause of the discrepancies. If the rounding issue can be rectified, the reservoir data may be usable to calculate inflow.

Closed Basin

The Closed Basin Project delivered 13,044 acre feet to the Rio Grande in calendar year 2008. All of the delivery met water quality standards for the Rio Grande Compact and therefore was creditable to Colorado's delivery to the Stateline. The Project produced a total of 18,079 acre feet for all of the various purposes outlined in the enabling legislation and the decree. This amount included a 1,000 acre-foot delivery during June and July to San Luis Lake. Also, 500 acre-feet were delivered to the Blanca Wildlife Habitat Area above and beyond the normal annual mitigation delivery of 800 acre-feet to the BWHA. These extra-ordinary deliveries were replaced to the Rio Grande and the Conejos by releases of DOW-owned trans-mountain water from storage in upstream reservoirs.

The Project continues to be plagued by iron bacteria contamination, commonly known as biofouling. This biofouling continues to reduce the output capacity of the wells by a large percentage. The USBR has tried various remedies for the problem, but has met with limited success. In 2001, the USBR began a well re-drilling program in an attempt to increase the Project's production. The Bureau and Conservation District continue to re-drill wells to boost the project's production. Currently, there have been 48 wells that have been redrilled with good success. We are beginning to see a small increase in the overall production of the Project due to these redrilled wells. The total amount delivered

from the Project for all purposes was approximately 91% of last year's total, due mainly to a lack of need for project water delivery to the Rio Grande near the end of 2008.

The Project was pumped at maximum sustainable capacity for most of the year. Testing and rehabilitation of the contaminated wells reduced pumping levels at times and, therefore, the overall output of the Project. The Allocation Committee for the Project set the initial allocation at 60% for the Rio Grande and 40% for the Conejos early in the year and it remained there for the entire year. Of the creditable water delivered to the river, 5,218 acre feet were credited to the Conejos River and 7,826 acre feet were credited to the Rio Grande. The 15-year cumulative allocation expressed as a percentage of the total is 60.1% for the Rio Grande and 39.9% for the Conejos.
Project deliveries made during 2008 were as follows:

1,300 acre feet to the Blanca Wildlife Habitat Area
1,000 acre feet to San Luis Lake
2,735 acre feet mitigation delivery to the Alamosa National Wildlife Refuge
13,044 acre feet (all creditable) to the Rio Grande
18,079 acre feet total volume

Reservoir Operations and Dam Safety

The Division 7 Dam Safety Engineer is Mr. Matt Gavin. This position is also responsible for conducting dam safety inspections for Water Districts 20, 21, 22, 26, and 27 in Division 3. In 2008, the dam safety inspection workload was unusually heavy in Division 3, Water Districts 20, 21, 22, 26, and 27. Two factors contributed to the heavy workload. The first factor was that 2008 marked the first full season for which the Division 7&3 Dam Safety Engineer position has been filled since the departure of Dennis Miller in 2006. The second factor that contributed to the heavy workload was that a high proportion of the Low Hazard dams in Division 3 were inspected in 2002; consequently they were due for inspection 2008. The 2008 season also marked the first year for the Branch-wide implementation of the risk based approach to determining inspection frequency. In all, 34 official inspections were conducted with numerous other site visits and follow-ups.

The Division 7 Dam Safety Engineer is responsible for the regulation of 9 High Hazard dams in Division 3. Determining inspection frequency based on the Risk Based Profiling System had the effect of lowering the inspection frequency on 3 High Hazard Dams, specifically Beaver Park, and the Big Meadows Main Dam and North Dike. The remaining 6 High Hazard dams were all inspected during the 2008 season.

The Division 7 Dam Safety Engineer is responsible for regulating 14 Significant Hazard Dams in Division 3. Based on the RBPS score, 13 out of the 14

structures were due for inspection in 2008. All 13 structures were inspected in 2008.

In addition to the inspections above, 15 Low Hazard Dams were inspected during the 2008 season. The Table below summarizes the total number of official inspections by Hazard Classification.

Number of Inspections by Hazard Classification for 2008 Season

Hazard Classification	Number of Inspections
High	6
Significant	13
Low	15

Out of all the Division 3 dams regulated by the Division 7 Dam Safety Engineer, there are currently 5 dams under storage restrictions, two of which are High Hazard, two Significant Hazard, and one Low Hazard. All five restricted dams were inspected during the 2008 season. Two of the five storage restrictions were imposed during the 2008 season. Fuchs Reservoir, a 237 AF, Significant Hazard impoundment located in Water District 20, was restricted to a Gage Height of 14.0, which is 3 feet below the service spillway crest. The restriction on Fuchs Reservoir resulted in a loss of 73.4 Acre-Feet of storage. The second storage restriction imposed in 2008, was on Byler Pond, an illegally constructed, Low Hazard, Minor dam located in Water District 25. The zero storage restriction on Byler Pond resulted in a loss of less than 2 Acre-Feet of storage. No storage restrictions were lifted in 2008.

Consultants continue to work on hydrology and planning studies for Rio Grande Reservoir and Terrace Reservoir. The Terrace Reservoir emergency spillway is in substantial disrepair and is the basis for the current storage restriction. At this time, the consultant for Terrace Reservoir is performing an Incremental Damage Analysis in an attempt to reduce the scope of the required spillway repairs. The Owners of Rio Grande Reservoir have abandoned their desire to expand the reservoir, but are continuing to work toward addressing the dam safety concerns.

In late fall, the owners of the Trujillo Meadows Dam installed a PVC liner throughout the spillway channel. Shortly after construction, heavy snows fell in the area, preventing an assessment of the effectiveness of the liner project. The dam will be visited as soon as it becomes accessible in 2009 to evaluate the project.

Notable milestones achieved by the Dam Safety Branch in 2008 included the finalization of the Basin Response Study, which was developed for the Dam Safety Branch by hydrologist George Sabol. The study provides guidance for determining modeling parameters used to convert rainfall to runoff, particularly in

high elevation watersheds. In addition, the Extreme Precipitation Analysis Tool (EPAT) continues to see more widespread use by Branch members and consultants alike. The completion of the Basin Response Study and the growing consensus for the validity of EPAT results has led to the lifting of the long-standing moratorium on hydrologic evaluations for watersheds above 7500 Feet in elevation. Branch-wide efforts to assess spillways on dams above 7500 Feet are currently underway.

Dams in district 24 and 35, including Sanchez, Mountain Home, and Smith, are inspected by the Division 2 Dam Safety Engineer, Mike Graber. Mike retired from the Division of Water Resources in the fall of 2008 and his position remains open at the present time. Matt Gavin is assuming the interim responsibility of dam safety duties in these other districts.

Stream Administration

Stream administration in Division III during 2008 was challenging due to the very large snowpack and the relatively low runoff from that snowpack. Early forecasts for basin yields led to initially high compact delivery requirements and curtailment percentages. The lack of any significant precipitation in the spring and summer resulted in low curtailments late in the season. The Rio Grande began the year with a 32% curtailment that was dropped throughout the irrigation season, finally reaching a zero curtailment on August 6. A 52% curtailment began the season for users on the Conejos system. The curtailment on the Conejos was also decreased throughout the year, ending at zero on September 15

Hydrography

The Hydrographic Branch in Division 3 has the responsibility of providing accurate 'real-time' stream flow data and historic record production for streams within the San Luis Valley of Colorado. This includes the Rio Grande and its tributaries, the Conejos River and its tributaries, and those streams tributary to the Closed Basin. The Hydrographic Branch also supports the water commissioners and other DWR personnel by providing services such as ditch measurements, seepage investigations, structure installations, water-related consultations, etc.

The Hydrographic Branch in Division 3 is staffed by five hydrographers. Scott Veneman, a Hydrographic Technician, performs the Lead Hydrographer duties while continuing to manage the satellite monitoring system for this division. The other Division 3 hydrographers perform regular hydro duties as well as manage and assist with other portions of the program. Stan Ditmars, a Hydrographic Technician, is the Division 3 construction manager. Lee Conner, an Engineer-in-Training, is in charge of repair and maintenance of hydrographic and construction equipment. Matt Hardesty, a Professional Engineer, is in charge of construction design and ADCP measurements. Jesse Jaminet, a Hydrographic Technician, coordinates all snow machine travel and performs snow survey measurements.

Division 3 operates and maintains 57 streamflow stations for which it produces historic streamflow records. From these stations the hydrographers produce 59 published water year streamflow records and 9 published calendar year streamflow records. In addition, the Hydrographic Branch in Division 3 cooperates with the Colorado Department of Health to produce and publish 4 other streamflow records for gaging stations in the Alamosa Creek drainage. Therefore, a total of 63 historic water year streamflow records are produced. Another 10 stations are operated as administrative stations with no flow records being published. There are also 11 major diversions in the basin that the hydrographic staff assists in operation, calibration, and data collection.

In 2008, the hydrographers in Division 3 performed nearly 1,000 stream and ditch measurements. These measurements were used to create and calibrate stage-discharge ratings at streamflow gaging stations and diversion structures.

Satellite Monitoring

The Satellite Monitoring System Repair Facility in Division 3 is responsible for maintenance, repair, and calibration of all electronic data collection and telemetry equipment in this division. The facility provides technical support and assistance to field engineers and technicians in other divisions for system installation, field maintenance, and modifications.

78 gages with satellite telemetry are maintained, which includes 54 stream-gage record stations. One of these stations is linked into the satellite telemetry network via a line-of-site radio bridge to a station with satellite telemetry. There are currently only 3 stream-gage record stations with no satellite telemetry. Other stations with satellite telemetry include 8 stream-gage administrative stations of which 1 is hardwired to a reservoir station, 11 stream-gage diversion stations, and 7 reservoir stations. Two of the stream gage record stations with satellite telemetry also have phone line telemetry. There are an additional 2 stream-gage administrative stations that don't use satellite telemetry but the data loggers are maintained. One is equipped with an 8210 data logger and phone line telemetry, and the other utilizes an SDR data logger. DWR owns the data logger / transmitter equipment at 66 of these stations.

In addition to the everyday repair and maintenance duties, a trip was made to Division IV, to troubleshoot a satellite system. A new satellite system, purchased by the San Luis Valley Water Conservancy District, was installed at Bear Creek near South Fork for administration of an augmentation plan. Santa Maria Reservoir Company purchased a new Constant Flow Bubbler System and HDR upgrade that was installed at Continental Reservoir.

This year, eight more DWR stations were upgraded to High Data Rate data loggers / transmitters. This brings the total number of DWR owned HDR systems in this division to 51. Since there are 66 stations with DWR owned satellite

telemetry, the upgrade phase is 77% complete. Not including the 4 Colorado Department of Health stations, there are 12 stations with satellite telemetry owned by other entities. Only 5 of these are HDR systems.

New Stations/Rehabilitations/Modifications

Two large construction projects where completed by Division 3 during 2008. The largest project was at North Clear Creek below Continental Reservoir. It involved the removal of the old concrete trapezoidal control section and resetting the existing gage shelter on a new concrete well with new inlets and flush pipes. A new walk bridge and concrete apron were also constructed for streamflow measurements. The existing gage shelter at Goose Creek at Wagon Wheel Gap was also reset on a new concrete well with new inlets and flush pipes. The station was reset at the same location, although farther from the creek.

Several smaller projects were completed throughout the year as follows:
One cableway A-frame was installed, inlets reworked, and steps repaired at the North Channel Conejos River near La Sauses.
To address a safety concern, handrails were installed on the following cableway platforms: North Channel Conejos River near La Sauses, Los Pinos River near Ortiz, Conejos River below Platoro Reservoir, Rio Grande at Thirty Mile Bridge, Conejos River near Mogote, Rio Grande near Del Norte, Alamosa Creek above Terrace Reservoir, and the South Fork Rio Grande at South Fork.
The cableway cable was replaced at Los Pinos River near Ortiz.
A new cable car was installed at Alamosa Creek above Terrace Reservoir.
A bank operated Cableway was installed at North Crestone Creek near Crestone.
The rock weir at Cotton Creek near Mineral Hot Springs shifted during the winter and had to be rebuilt.

Flood Hardening

There were no projects completed in 2008, which utilized flood hardening funds.

Closed Basin

The Hydrographic Branch in Division III is charged with fulfilling the terms and conditions of a contract between the State of Colorado and the USBR. This contract provides for streamflow measurement and data collection on the Closed Basin Project. It is the responsibility of the Hydrographic Branch to measure, record, and disseminate flow information to the USBR and to other public entities. In addition, the Hydrographers are consulted on certain areas of concern regarding streamflow and measurement within the Project. Specifically, the Division of Water Resources is responsible for the operation of the gaging station on the Closed Basin Canal, and the development of monthly and yearly streamflow records for this location. In addition, there are at least nine other

locations on the Closed Basin Project area that are to be measured when the need arises.

The current 5-year contract agreement between the State of Colorado and the USBR regarding the Closed Basin Project went into effect in February of 2005.

Well Metering

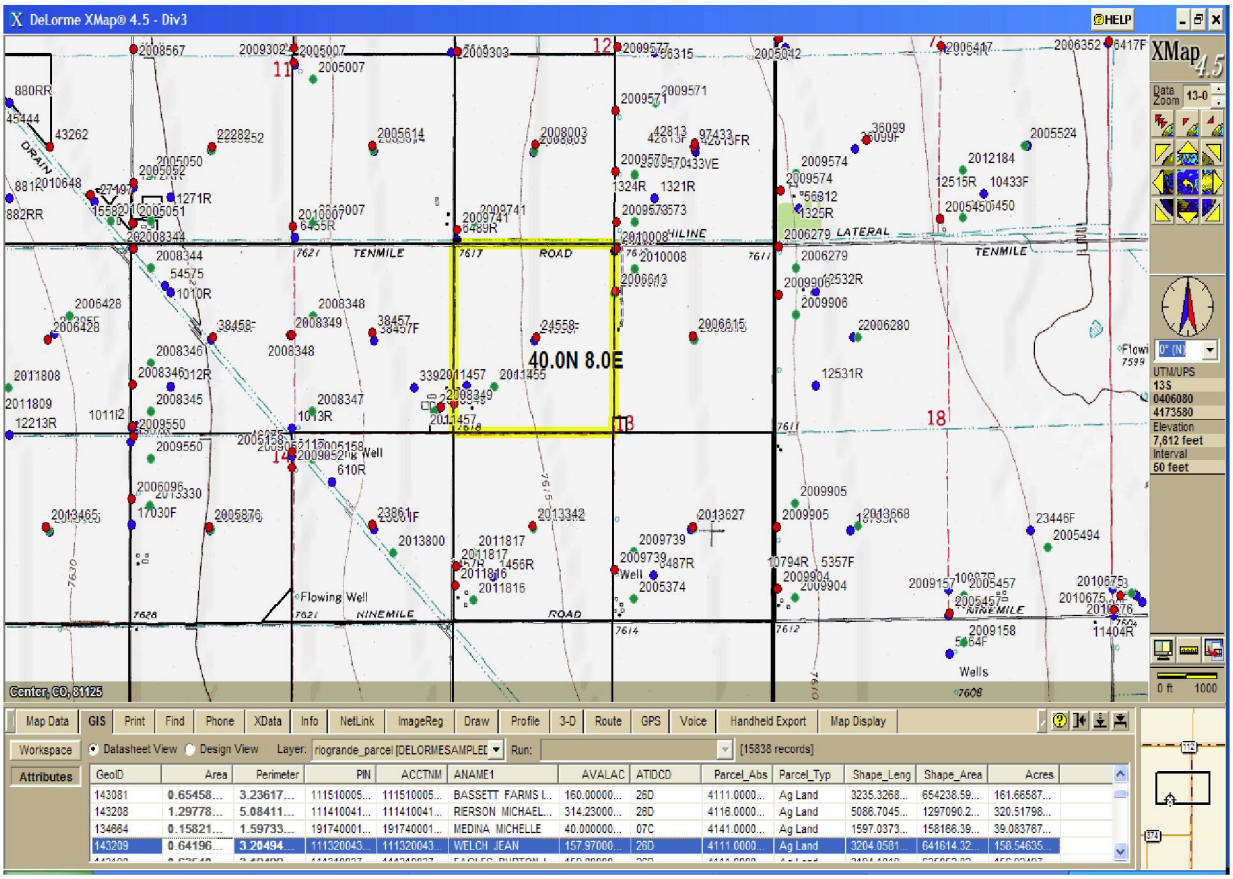
The Well Metering program picked up in 2008 where it left off in 2007. Meters were required to be installed on all non-exempt wells by March 1, 2007 and to be verified in accurate working condition within one year or March 1, 2008. The beginning of 2008 was spent preparing for the March 1, 2008 compliance deadline regarding flow meter verifications. With an estimated 6000 wells in the basin this was a huge task. Initially, staff were kept in the office to grade and process the huge volume of paperwork involved in the required Meter Verification forms. Metering staff reviewed additional forms submitted, inspected meter installations accuracy, inspected one-half of the wells filed as Inactive, and completed the field inventory of all the wells within the scope of the Measurement Rules. Additionally, with the assistance of Water Commissioner Luis Heredia, brass tags identifying each well by Structure Identification, Permit Number, and Court Decree were installed. By the end of 2008 the staff had processed the following number of forms: Verification of Totalizing Flow Meter **(4,600),** Totalizing Flow Meter Installation **(3,700),** Well Owner Information **(3,000),** Water Use Data **(3,200),** Inactivation **(1,500),** Variance Request **(800),** Notice of Re-activation **(150),** Flow Meter Reporting Forms **(1,800).** The staff have also been scanning and linking all these forms into the Laserfiche system. To date over 18,000 forms (not pages) have been scanned.

Well metering has been working closely with IT and Division 2 to incorporate the well metering into the newly designed Ground Water Data Management System (GWDMS). Division 3 metering has been working with IT to Beta test new portions of GWDMS as they are designed. Currently, GWDMS includes Rolodex, Water Rights, Measurement Device Information, and Variance modules. Additionally, the team worked to improve the web reporting application that allows farmers to report meter readings via the web.

Well metering staff assisted with the 2008 certified well tester re-certification classes held in Alamosa and Colorado Springs. Well metering staff worked with Division 2, Michael Schaubs and the Republican Basin staff to provide a New Well Tester Certification class held in Burlington last summer. Several new well testers became certified well testers, hopefully to help meet compliance deadlines of the new Republican River Basin Measurement Rules. Div. 3 metering staff have been working with Divisions 1 and 2 toward statewide standardization regarding groundwater measurement programs. Standardization of certification and re-certification classes, reporting forms, reporting web sites and policies continue into 2009.

Well metering has not been accepted by all. The division has had to post 731 Well Head Orders including: 254 Cease & Desist Orders (mailed); 317 Violation Orders (mailed); 160 Cease & Desist or Violation Orders (posted).

The division has had to use the Attorney General office to prod folks into compliance. So far the division has sent 40 notices of "Wells Not In Compliance With a Violation Order" to the AGO, of which 13 received warning letters from the AGO, of which 6 were followed with an intent to file a lawsuit letter, of which one permanent injunction (4 wells) was filed in Water Court (2007CW44). In this case, after repeated attempts to bring an individual into compliance, the court awarded a $6000 fine for pumping without a meter in violation of the rules. About 12 pending actions are still extant although basic inventory is still proceeding.

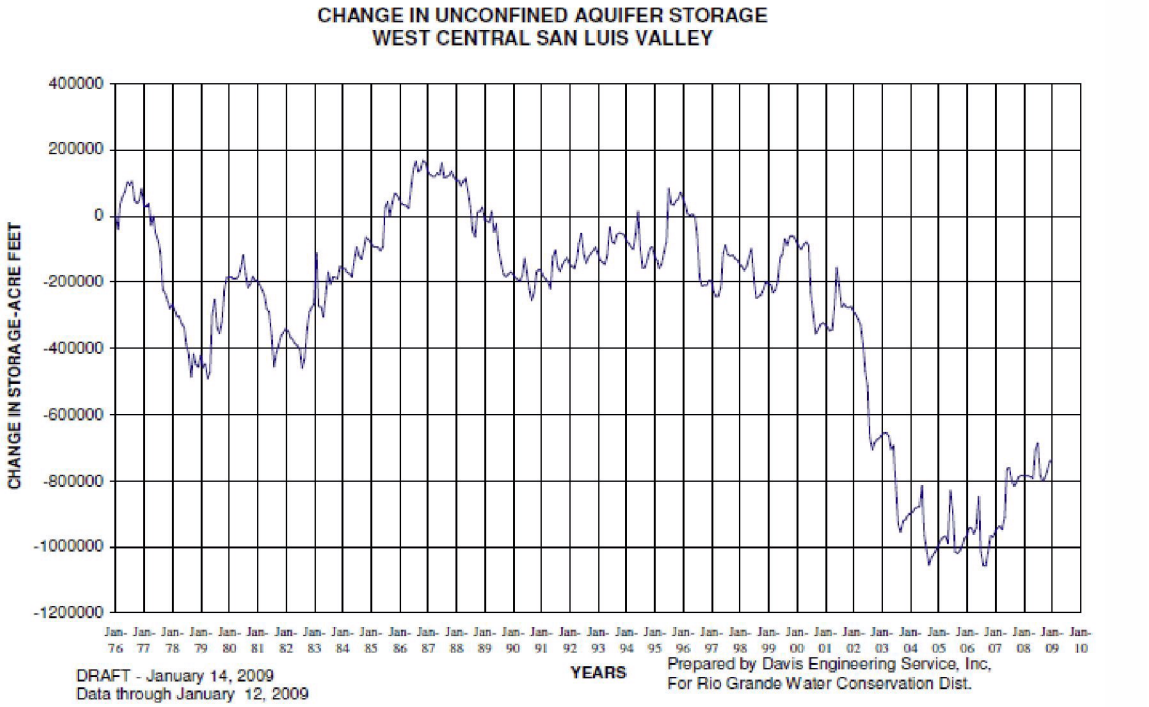


Screen shot from the mobile well tools used by metering technicians.

WATER ISSUES

In June of 2005, the Division of Water Resources promulgated rules on the measurement of groundwater in Division III. Titled "Rules Governing the Measurement of Ground Water Diversions Located in Water Division III, The Rio Grande Basin," these rules call for the metering of all non-exempt wells over fifty gallons per minute located in Division III. The Court ruled in favor of the rules in July 2006. The deadline for having meters installed on these wells was March 1, 2007, and the deadline to have the meters certified to be in accurate working condition was March 1, 2008.

2008 was the second year in a row in which the streamflow on the Rio Grande was above average. The large 2008 snowpack caused much concern for potential flooding early in the year, but also much hopefulness for the benefit to the aquifers and the abundant supply for the ditches. The unexpectedly weak runoff caused multiple changes in compact curtailment over the year. Due to the lower runoff there were lower than expected diversions into the Closed Basin during the year. The RGWCD Unconfined Aquifer Storage Study showed a slight gain of approximately 14,000 acre feet in 2008 (see graph below). Compared to the 1976 baseline, the study area contained approximately 800,000 acre feet less water by the end of 2008. This situation makes all concerned very aware of the importance of managing the aquifer systems to achieve an overall balance in the system. The importance of a coordinated recharge system and matching the demand to it is recognized by even the most skeptical. In early 2004, SB-222 was passed at least in part because of this well and aquifer situation and provides the State Engineer a mechanism in which to proceed with upcoming well administration.



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 SB-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 system. During the summer of 2006 the Court approved the formation of Subdistrict #1 located in the closed basin north of the Rio Grande. In September 2007 the Subdistrict #1 board of managers arrived at a plan of water management. The plan was adopted by the RGWCD and was sent to the State Engineer for review. The State Engineer approved the plan. Many objections to the action of the RGWCD and the State Engineer in accepting the plan were filed in court. Both the civil case and the water case were combined by the judge, and a trial was held in the fall of 2008.

Meanwhile, a second subdistrict, the Trinchera Subdistrict, was formed in 2008. This subdistrict encompasses the wells in the area of Trinchera Creek. Currently, the petitions for formation of Subdistrict #2 (alluvium south of the Rio Grande) are being recollected for submission to the RGWCD for formal review and filing with the Water Court. Additionally, the formation of a Subdistrict in the Conejos area started with the collection of petitions in the latter half of 2005, and discussions have been held regarding formation of Subdistricts in the Saguache/San Luis Creek area, and the Alamosa-La Jara area. The State Engineer is giving the well owners an opportunity to use SB-222 and address the depletion issues themselves but will, in all likelihood, promulgate rules regarding well administration in 2009.

SB04-222 was passed in the 2004 session of the Colorado legislature. This bill was the combined effort of the water entities in the valley to address the confusion revolving around the ability of the State Engineer to promulgate rules regarding well administration. It cleared the way for that to happen while allowing considerable flexibility to the state in addressing these issues. The three primary goals of any plan would be to restore and stabilize the aquifers, minimize injury to senior vested rights, and insure that the State can meet her Compact obligations. The legislation recognizes entities like the Subdistrict outlined above, to provide a vehicle to address these issues within the valley. The bill also recognizes the ability of the State to consider many different issues in the overall management of the aquifers.

The State Engineer promulgated Rules and Regulations regarding new appropriations from the Confined Aquifer in 2004 (Case No. 04CW24). Beginning in January 2006, a trial was held on the merits of the Rules and Regulations and the model supporting those rules. The trial lasted six weeks. The Court issued its ruling in November 2006 affirming the rules and the underlying model. In that ruling the Court opined that Sustainability will be the next great tenant in water law. That ruling was appealed and oral arguments were heard by the Supreme Court in December 2007. In 2008, the Supreme Court upheld the water court ruling regarding the confined aquifer rules.

ON-GOING PROJECTS

RGDSS

As noted in Water Issues above the Rio Grande Decision Support System project was deemed sufficient by the Water Court to support the Rules and Regulations for new appropriations from the confined aquifer as required under the RGDSS enabling legislation (HB98-1011). The Supreme Court upheld this finding. The RGDSS model is most probably going to be used in the determination of injuries for the various subdistricts' plans of water management. Work continues to refine and update the model as more data become available. The Division Engineer participates monthly in per-review meetings regarding the model.

Rio Grande Silvery Minnow

The Rio Grande Silvery Minnow continues to cause everyone on the Rio Grande in New Mexico to reconsider how and why things are done and where to find enough water to keep the river wetted throughout the reach from Albuquerque to Elephant Butte. The 2008 year was the first year since before the drought that the middle Rio Grande did not dry up in several reaches. This continuous wetting of the Rio Grande helps significantly with silvery minnow recruitment, although it makes counting the minnow more difficult. Due to better minnow numbers in the middle Rio Grande, no silvery minnow were stocked in the middle Rio Grande this year.

An experimental 10(j) population of silvery minnow was established in the Big Bend reach of the Rio Grande in Texas in 2008. The USFWS stocked over 400,000 silvery minnow from facilities in New Mexico.

The USFWS still has not completed the Silvery Minnow Recovery Plan, so there are still no definitive recovery levels for the minnow.

Southwestern Willow Flycatcher

The Colorado Division of Water Resources, along with the states of New Mexico and Texas, remains concerned about the large increase in nesting pairs of Southwestern Willow Flycatchers in the upper reaches of Elephant Butte Reservoir. Although the increase of birds is a good thing, the location of the birds is less than ideal. The nests of many of these birds are within the inundation area of Elephant Butte Reservoir, and if the reservoir is filled, could cause issues to arise under the endangered species program. The three compact states have been working with the Fish and Wildlife Service as well as other federal agencies to develop a plan in the event the reservoir is filled and displaces some of the birds. As of 2008, no plan was in place to address this concern. During 2004 the USFWS re-designated proposed critical habitat for the endangered Southwestern Willow flycatcher. In Division III the new designation included the Conejos River up to HWY 285 and the Rio Grande up to Del Norte. The Division and the RGWCD spent many hours providing comments on the

listing to the USFWS. The RGWCD also formulated a Habitat Conservation Plan (HCP) that is designed to help maintain the habitat the bird needs. Additionally, the USFWS personnel at the local wildlife refuges (Alamosa and Monte Vista National Wildlife Refuges) spend considerable effort in assuring useful habitat for the species. As a result of the comment, the work on the HCP, and the Refuges extraordinary success in sponsoring the bird, the final designation of critical habitat (2005) did not include any land in Colorado. The RGWCD continues to work on the HCP to satisfy the USFWS requirements.

Cochiti Reservoir Deviation

Over the past year the Corps of Engineers has been working with the three Rio Grande Compact states to implement a five-year water operations strategy for potential deviations from normal operations at Cochiti Lake and/or Jemez Canyon Reservoir in New Mexico. This deviation would be for the purpose of providing overbank and/or recruitment flows for the Rio Grande Silvery Minnow. A proposal has been drafted by the Corps of Engineers and will be submitted to the Compact Commission for consideration at its 2009 meeting.

.*Rio Grande Compact Commission Salinity Committee*

Salinity in the Rio Grande is being studied. New Mexico has initiated studies of sources of salinity, primarily in the portion of the Rio Grande below Elephant Butte. A Salinity Steering Committee has been formed and meetings are held several times per year. The Committee is looking to the ACOE to assist with research funded under WRDA to determine sources of, and potential solutions to, salinity problems. The Division of Water Resources has been involved in the steering committee assisting with the development of a technical committee and with a scope of work for grant/funding applications.

Rio Grande Roundtable

The IBCC Rio Grande Roundtable meets monthly in Alamosa. The Division Engineer attends these meetings as an adviser and educator on water issues. The roundtable has been successful in vetting and recommending projects to the CWCB for funding including: the Rio Grande Reservoir enlargement project, the bifurcation core on the Conejos River, the analysis of the Hydraulic Divide, and funding for Conservation Easements through the Rio Grande Headwaters Trust.

Groundwater Enforcement

The Division III staff continues to make concerted efforts to address numerous issues regarding the use of groundwater. Since there are no groundwater administration rules in effect, the staff has tried diligently to address issues of expanded use, improper use of wells on land they were not intended to serve and change of uses without confirmation by the State Engineer or the Water Court. Terms and conditions on permits, late registrations and decrees provide

our initial guidance along with extensive aerial photo interpretation. These issues arise in various ways, but many find us without any instigation on our part.

The implementation of well metering rules has required that owners install meters on their wells. Staff inventory of wells and review of the installations and variances has generated a host of additional issues with respect to the current use of some wells. These are being brought to the attention of the owners so they have an opportunity to correct those problems either through administrative or court proceedings.

Numerous issues, particularly in regards to expanded use, come to our attention by people participating in the EQIP program of the NRCS. With the Federal government's large cost share in this program, users have in many instances tried to add new acreages beyond that limited by the decree or permit or historic service area. The delivery efficiencies of new pipelines, sprinklers and regulating reservoirs in many instances creates "extra water" that they want to take to new ground and dramatically increase the consumptive use of a well's production. There is little understanding that the increase in consumptive use in an over-appropriated system is detrimental to the entire area. NRCS staff had, in some cases, not grasped the concept that conservation and efficiency cannot and does not create the ability to add new acres. It is very hard for many to understand that there is no water savings just because there may be less water pumped but the new system and its efficiency has increased consumption. The NRCS is now required to refer all potential "water expansion" applications to the Division office for review prior to NRCS approval. These efforts take considerable resources but are absolutely essential to us holding the line on overall consumptive use in the Rio Grande Basin. The entire basin, including the surface streams, unconfined, and confined aquifer systems, are over appropriated, and any new depletions to the system cannot be allowed.

ON-GOING ISSUES

Water Court Activities

Twenty-eight cases were filed in the Division III Water Court during 2008. Once again, a large percentage of the cases filed during the year sought a change of underground water right. Typically, the applicant sought to adjudicate an existing alternate point of diversion or supplemental well, correct the decreed location or source, or convert the historic use to a new use. Many of these have been filed in response to investigations under the well metering rules. The Division continues to oppose those Water Court applications that seek to deepen an existing non-exempt well or construct a new alternate or supplemental point of diversion. Pursuant to Policy 2003-3, the State Engineer has denied well permit applications for deepening wells and/or construction of a new supplemental or alternate point of diversion.

While most cases in Division III are resolved through the Division Engineer's recommendation and negotiation of those terms and conditions placed in the decree, some require a hearing or a trial. Judge Kuenhold remains the Water Judge and Margaret "Peg" Russell continued as Water Court Referee.

Water Court casework during 2008 was generally assigned to Mike Sullivan, Craig Cotten, Rob Phillips, and Pat McDermott. Corey DeAngelis began learning the court case process by being assigned several cases late in the year. The Water Commissioners also lend help when needed via field inspections or historical knowledge of the claim. A "push" from the Water Judge and Referee resulted in a large number of open cases being resolved during 2008. In all, 82 Water Court cases were closed. At the end of the year, only 45 cases remained open.

INVOLVEMENT IN THE WATER USER COMMUNITY

As always, we strived to be as involved as possible in the water user community again in 2008. Our staff attends 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 on the local television station, 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 Rio Grande Silvery Minnow Recovery Plan Team, the Southwestern Willow Fly Catcher Recovery Technical Advisory Team, the Bureau of Land Management Rio Grande Corridor Plan, the RGDSS Advisory Team, Upper Rio Grande Water Operations Model Advisory and Technical Teams, The Upper Rio Grande Water Operation Plan Review, the Rio Grande Compact Commission Salinity Committee, The Rio Grande Headwater Restoration Project, and many other public forums which require input on water issues.

The Division staff have attended and provided input on the formation of Subdistricts under SB222 and in the development of service plans under the authorized Subdistrict Number 1.

On March 29, 2008, the Division Engineer and the staff engineer made a presentation to the public at the Rio Grande County Museum as a part of the

museum's ongoing lecture series. Mike addressed a modest gathering on the Rio Grande Compact – Past, Present and Future. Pat updated the group on current water issues throughout Division 3 and the State.

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.

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, including the Potato-Grain Conference. The level of interest is very high, especially regarding the well metering program, subdistricts, and the upcoming well use Rules and Regulations.

PERSONNEL/WORKLOAD ISSUES

Well Administration and Permitting Activities

The well permitting workload dropped slightly in 2008, as compared to 2007, with 314 permit applications submitted to the Division III office. As in prior years, much of the permitting is for new residences in the valley as well as replacement for older wells. The aquifers in the valley have begun to stabilize, and in many cases, to rise slightly, and therefore we are seeing a decrease in the number of emergency replacement well permit applications.

Pursuant to the Well Permitting Guidelines for Water Division III dated October 28, 1999, the Division staff continues to submit recommendations with all non-exempt well permit applications processed by the Denver staff. Older wells continue to fail as casings rust and collapse and need replacement. A great deal of research goes into each checklist before it is submitted to the Denver office. Although this process is cumbersome at times, it allows the staff the opportunity to discover any discrepancies with the existing permits and decrees and prevent expansion of use. The addition of the well metering branch has improved the efficiency and effectiveness of the well permitting process also. The well metering employees are in the process of inventorying wells throughout Division 3, and that information assists our office in making permitting decisions.

A new law, HB08-1014, took effect on January 1, 2009. This law requires that a change of ownership on permitted wells or a new permit on non-permitted wells be applied for at the time of closing on any property containing wells. It is anticipated that this new law will add to the workload of the well permitting branch in the future.

Well Inspection program

The well inspection program continues to be an important part of the Division III operations. Policy 2003-3, regarding deepening of non-exempt wells, would be difficult to oversee without a well inspector to physically review construction. Larry Hakes, the resident well inspector, continues to assure that exempt and non-exempt wells are constructed in accordance with the Construction Rules as promulgated by the Board of Examiners.

Water Records and Information

In this age of satellite uplinks and computer record keeping the Water Commissioners would not be able to perform their duties without the computer. The availability of gage information from the computer each morning allows the Commissioners to make and implement decisions regarding diversions early in the day. The information, published daily in the stream administration sheet that is available to the water users, allows for more efficient allocation of this valuable resource. It also keeps the water users more informed about the conditions on the river each day. Daily diversion sheets are posted in all districts and are available in the division office. The division continues to look for ways to provide high-speed access for water commissioners as computer programs become larger, more interconnected and essential to daily activities. Many water commissioners work in remote areas and it is increasingly difficult for those with dial-up access to effectively use the tools the state is developing.

Diversion records went slowly but smoothly this year with the division again using Hydrobase for diversion records. The division also participates in the Hydrobase team meetings in efforts to standardize record keeping and production. The Team has met several times and succeeded in reviewing the water rights tabulation system and the diversion information system. The massive database needs of the well metering program are being incorporated into the hydrobase system creating a very usable central database.

Personnel Changes

At the beginning of 2008, Division 3 had a full staff of employees. This was the first time in several years that there was not at least one open position in Division 3. Unfortunately, this full staff situation did not last long. At the end of February, long-time water commissioner Ben Cannon retired. This position was filled by Sam Riggenbach, who was previously a well meter technician with our well metering branch.

Dustinn Valdez joined the Division staff as the IT professional in July. Dustinn had worked for Focus on the Family in Colorado Springs doing desktop support work previously. His experience in desktop support and database manipulation is a great help to the division. Dustinn is also learning GIS work and is becoming a great asset in that area as well.

Division Engineer **Mike Sullivan** was appointed as the Deputy State Engineer in September. This promotion, while good for the Division of Water Resources as a whole, will mean many changes to the DWR staff in Division 3. Assistant Division Engineer Craig Cotten will be the acting Division Engineer until this position can be permanently filled.

Training Activities

Jesse Jaminet, Rob Phillips, and Tom Stewart attended a one week snow survey/winter survival training at the Westwide Snow Survey Training School. Matt Hardesty attended a one week USGS Hydroacoustics Training Class to become certified in performing/reviewing ADCP streamflow measurements. Matt Hardesty and Jesse Jaminet attended a three day USGS Cableway Inspection course to become certified cableway inspectors. All Division 3 hydrographers attended a two day USGS Stage-Discharge Rating Development Training using Aquarius GRSAT software, during the annual hydrographer's training meeting. The hydrographic branch presented a training in streamflow measurements to a large number of Division 3 employees.

Workload Issues

The workload issues have exploded in Division III as new programs mature: implementation of Well Metering regulations, formation of Subdistricts, Roundtable activities and establishment of well rules and regulations.

Well Metering: With the well metering staff on board the program is running well, but has also driven the number of cease and desist orders up dramatically as problems are found such as wells with no meters or well meters that have not been certified.

Subdistricts: The formation of Subdistricts has required the Division Engineer and staff to devote considerable time to meetings regarding formation of Subdistricts, development of service plans, and water management plans. Much time has also been spent preparing for and testifying in the first subdistrict trial. State Engineer Dick Wolfe, Deputy State Engineer Mike Sullivan, former Deputy State Engineer Ken Knox, and Assistant Division Engineer of Division 2 Bill Tyner testified on behalf of the Division of Water Resources during the subdistrict trial.

Roundtable: The Rio Grande Roundtable meets monthly in Division III. The Roundtable has been reviewing proposals for funding of water projects and 'becoming educated' on water issues. The Division Engineer attends all meetings, provides educational presentations, and attends/advises the subcommittee on water projects.

Salinity Committee: The Rio Grande Compact Commission has formed a Salinity Committee. The Division Engineer and Deputy State Engineer have been

peripherally involved, however as the committee moves forward more time commitment will be required.

EMPLOYEE RECOGNITION

Water Commissioner of the Year

Tom Stewart was chosen as Water Commissioner of the Year for 2008 in recognition of his efforts in assisting District 22 to continue to run smoothly. Tom being involved in several community agencies has given him the ability to communicate with many in the community and stay informed on water issues.

PUBLIC RECOGNITION

Water Superintendent of the Year

Alfred Pacheco was honored as the "Superintendent of the Year" for 2008. Alfred was given this award due to his demonstration of promptness and accuracy in the administration of water at the Trinchera Ranch. Alfred has kept The Trinchera Ranch ditch system operating smoothly and has been most helpful and communicative with water commissioners.

Water Manager of the Year

Mike Gibson was honored as the "Water Manager of the Year" for 2008. Mike efficiently manages the San Luis Valley Water Conservancy District, demonstrates leadership in the Rio Grande Roundtable, and has continuously been involved in water issues of the Rio Grande.

KEY OBJECTIVES AND GOALS

Many of our key objectives and goals are on-going from year to year, but they form the basis for what we do and how we do it. The following are our key objectives for the year 2009:

1. Administer the Rio Grande and Costilla Creek Compacts in a manner that ensures the entitlements of Colorado under each Compact are fully realized and utilized and that Colorado's obligations are met.
2. Operate the Division III office in a manner that allows us to stay within our budget.
3. Continue the process of building suitable databases and programs to effectively collect and utilize the information gathered through the well metering program.
4. Implement the provisions of the Long-Range Plan.

5. Continue to develop and implement the quality assurance/quality control program for Division III assuring accurate present and historic diversion records, proper water rights information, current ownership/contact information, and continuing an accurate and efficient decentralized well permitting program.
6. Constantly improve the quality of our hydrographic and diversion records and meet all deadlines for the completion and submittal of final records.
7. Coordinate with water user groups, Roundtables, individuals and other State and Federal agencies on issues such as endangered species, instream flows, Compact administration, Interstate litigation and Water Court applications, in order to maximize cooperation and minimize disputes.
8. Work with CWCB, the SEO, and the consultants on the RGDSS project to update and refine the model.
9. Continue to implement Principal Centered Leadership.
10. Identify any problems with and improve water administration at every level in the organization.
11. Effectively accomplish the Water Court process responsibilities with efficiency to provide terms and conditions that will practically and effectively deal with impact to other vested rights.
12. Insure that all dams in Division III are monitored frequently enough to recognize any deficiencies and promptly work with owners to correct them. Promote the integrity of our dams and to provide public safety as it involves those structures.
13. Provide sound judgment and encouragement to the Subdistricts and well owners to move to a sustainable system that addresses impact to the surface streams and protects the rivers in all ways.
14. Promulgate effective rules that identify and address the issues facing this valley with regards to management of the aquifers, senior rights, and our Compact compliance.
15. Continue working with the well rules and regulations advisory committee to develop rules and regulations for the administration of wells in Division 3.

MAJOR ACTIVITIES IN 2009

The runoff in 2009 is predicted to be approximately average. However, there is always the possibility of flooding if temperatures get hot early in the year. Division III staff will be proactive in providing water availability/diversion information to water users and in working with emergency responders and planners if the need arises.

With the implementation of the "Measurement Rules for Groundwater Withdrawals in the Rio Grande Basin," meters were required to be in place on all wells by March 1, 2007. By March 1, 2008 all those meters needed to be certified that they are properly operating. Collecting, processing, populating

databases, and utilizing the massive amounts of information, much of it in paper form, will present formidable tasks for the Division III staff in 2009.

Additionally the staff will be reviewing/drafting rules for both post compact depletions above the Compact index gages and well administration for possible promulgation in 2009.

Dealing with the ESA issues both in Colorado and downstream in New Mexico will be a continuing activity in 2009. The Southwestern Willow Flycatcher, which has critical habitat on the Middle Rio Grande, and the imperiled Silvery Minnow continue to effect water administration on the Rio Grande in New Mexico.

The administration of the two Interstate Compacts in Division III will be a major interest in our workload. Each year we are reminded of how fickle the systems can be and how carefully we must consider the action we take, the effects of those actions and how we set up the river administration as the season goes by.

Finally, the subdistrict formations and the well use rules will require a large amount of time from the Division Engineer and the staff of the Division of Water Resources.

INNOVATIVE ADMINISTRATION TECHNIQUES

At the request of the State Engineer, we will attempt to describe a few techniques to solve problems that we have or are working on to address problems that do not lend themselves to normal remedies:

1. The outlet gate structure in the dam at Rio Grande Reservoir has suffered damage on several occasions apparently due to unusual turbulence conditions in certain ranges of flow. Through the joint efforts of the San Luis Valley Irrigation District, the users on the Rio Grande, other reservoir owners, and Division of Water Resources, operating criteria will continue to be reviewed and developed to release flows outside of the damaging range of flow and protect the downstream vested rights. The district is actively pursuing funding that will allow for repair of the gates and a potential expansion of the Reservoir. The Division is supporting these efforts as resolution of the gate issue and additional storage may significantly assist in water administration in the basin.
2. During extremely dry winter months as seen in the last few years, there are areas in the San Luis Valley that are prone to domestic wells going dry and the problem of stock out of water. After several different scenarios were suggested, tried, and failed, we will amend our normal Compact administration in some cases when possible. We will try to let specific ditches divert small amounts of water during the winter and pay the Compact back later in the spring by giving up a part of their irrigation

supply. This has been accomplished over the past couple years with great success. While the last several winters have seen a fair amount of snow on the valley floor, some areas of the valley continue to see dry conditions.

3. We used Compact Storage on the Rio Grande to reduce the volume of water indexed and to save water in the event we over-delivered. We are currently working on an operating plan that would formalize the use of a pre-Compact reservoir to "pre-store" Compact water that would normally be run to the Stateline to try to minimize the over- or under-delivery of our obligation.
4. The use of private irrigation reservoirs to control flooding. With the agreement of a reservoir company, we are trying to re-regulate the peak of the hydrograph in high years to prevent flooding of vulnerable areas downstream on several river basins in Division III.
5. We are cooperating with the RGWCD and the well owners in the Valley to try and reduce the demand on the aquifer via the innovative SB04-222 legislation. This legislation allows for Subdistricts to develop groundwater management plans and "self-manage" groundwater issues under DWR review. In the interim we are still urging well users to continue to reduce their pumping to the extent possible in their individual operations to jump start any recovery.

MOST IMPORTANT EVENTS OF 2008

The US Park Service filed an application at the end of 2004 to preserve and protect the aquifer under the Great Sand Dunes. This application claims all un-appropriated water in the aquifers below the dune mass. This court case went to trial in August 2008. After a short prima facia case, judge Kuenhold granted this unique application.

Continuing implementation of the Rules and Regulations regarding Well Metering in the Rio Grande Basin was another milestone in 2008. In December of 2008, well metering data was required to be submitted for the first time. This data will be available to analyze the actual use of groundwater in the basin.

The approval of the Plan of Water Management for Subdistrict #1 (Unconfined aquifer - Closed Basin area) has generated opposition in court. Review by the court will clarify the ability for the water users in an area to solve the aquifer overdraft and attendant impacts to surface streams in new ways including the use of economic means to self fund and purchase/retire water rights and reduce impacts rather than the more familiar well administration experienced in other areas of the state.

The Rio Grande drainage continued to experience wildly varying conditions. The over-estimated runoff made for a difficult administrative year under the Compact. However, the slow rate of melt-out allowed for maximum diversion and utilization of water in the basin during 2008.

A. TRANSMOUNTAIN DIVERSION SUMMARY—INFLOWS 2008

RECIPIENT								SOURCE		
				10-Year Average		Current Year				
WD	ID	NAME	STREAM	AF	DAYS	AF	DAYS	WD	ID	STREAM
20	917	Don LaFont #1 Ditch	Trib Red Mtn Creek	3	2	0	0	78	4670	Trib Piedra River
20	918	Don LaFont #2 Ditch	Trib Red Mtn Creek	52	21	218	78	78	4671	Trib Piedra River
20	919	Pine River	Weminuche	390	54	331	88	31	4638	NF Los Pinos
20	920	Tabor	Trib Clear Creek	764	141	1030	155	62	774	Cebolla Creek
20	921	Treasure Pass Ditch	SF Rio Grande	162	35	121	53	29	4669	Wolf Creek
20	922	Weminuche Pass D	Weminuche	877	27	743	43	31	4637	Rincon LaVaca
20	923	Williams Creek Squaw Pass	Squaw Creek	386	95	328	87	78	4672	Williams Creek
26	702	Tarbell	Saguache Creek	765	82	892	103	28	4656	Cochetopa Creek

B. TRANSMOUNTAIN DIVERSION SUMMARY--OUTFLOWS

79	N/A	Hudson Branch Ditch	Huerfano River	309	76	631	74	35	657	Medano Creek
79	N/A	Medano Ditch	Huerfano River	593	56	727	63	35	658	Medano Creek

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR – 2008
AMOUNT OF STORAGE

WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM AF	MINIMUM DATE	MAXIMUM AF	MAXIMUM DATE	END YR
20	3532	Beaver Park	Beaver Creek	2266	11/1/2007	4460	4/16/2008	2805
20	3536	Continental	North Clear Creek	717	09/25/2008	8799	5/20/2008	809
20	3554	Rio Grande	Rio Grande	7499	7/10/2008	30500	4/12/2008	10976
20	3558	Santa Maria	North Clear Creek	3743	8/31/2008	9952	5/31/2008	4031
21	3582	La Jara	La Jara Creek	2210	10/8/2007	4080	5/28/2008	2210
21	3583	Terrace	Alamosa River	1973	10/24/2008	11149	6/04/2008	2002
22	3574	Platoro	Conejos River	11938	11/21/2007	33793	7/06/2008	16316
24	3576	Sanchez	Culebra Creek	24818	9/30/2008	34103	6/09/2008	24916
35	3529	Mt. Home	Trinchera Creek	1516	09/23/2008	8480	6/24/2008	1791
35	3530	Smith	Trinchera Creek	870	11/01/2007	4384	6/04/2008	2191

WATER DIVERSION SUMMARIES 2008

	STRUCTURES REPORTING			ALL OTHER STRUCTURES					TO IRRIGATION
WD	With Record (1)	No Water Avail. (2)	No Water Taken (3)	No Info Avail. (4)	No Record (5)	# Visits Structure	Total Diversions AF	Total Diversions to Storage, AF	Total Diversions, AF
20	408	50	30	43		8048	710830	27113	713947
21	80	8	12	3		3142	168574	9194	108007
22	145	0	20	13		2597	282505	18996	261479
24	93	0	5	15		3070	119506	31779	87103
25	121	31	32	27		309	51154	0	51154
26	137	89	21	17		1525	47212	0	47385
27	39	16	6	6		414	24299	0	21992
35	44	5	71	69		1831	63250	15256	56125
TOT	1067	199	197	193		20936	1467331	102337	1347193

WATER ADMINISTRATION DATA SUMMARIES

RIVER CALLS - IRRIGATION YEAR – 2008

District	Most Senior Priority Curtailed	Most Junior Priority Served	Calling Right in Spring
20 Rio Grande	#190 Minor Ditch	1916-40A Santa Maria Reservoir	#216-A Rio Grande Canal
21 La Jara	#7 McCunniff Ditch	#87 Coddington Ditch	#56 Hardtack Ditch
21 Alamosa	#2 Terrace Main Canal	#110 Terrace Reservoir	#57 Lowland Overflow Ditch
22 Conejos	#2 Heads Mill Ditch	#196 Christiansen Ditch	#108 Alamo Ditch
22 San Antonio	#4 Llano Ditch	#196 Eight Mile Ditch	#3 El Coda Ditch
24 Culebra	#53 Jose M Sanchez Ditch	1951-4 Lobato Ditch #1	#23 Guadalupe Sanchez Ditch
26 Saguache	#14 Hearn Ditch	#59 Hartman Ditch #3	#14 Hearn Ditch
27 La Garita	#5 Home Ditch #1	#60F Home Ditch #1	#10 Biedell Ditch #10
27 Carnero	#14 Wilson Ditch #4	#70 Moody & Head Ditch	#1 Omnibus Ditch
35 Trinchera and Tributaries	#3 Sangre de Cristo Ditch	#70 Garland Ditch No. 1, Indian Creek Supply Ditch, Sangre de Cristo-Trinchera Ditch	#44 Beckwith Ditch

Because of the idiosyncrasies of the administration scheme in District 25, no such information could be obtained which made sense.

WATER ADMINISTRATION DATA SUMMARIES

WATER DIVERSION SUMMARIES FOR VARIOUS USES - IRRIGATION YEAR 2008

WD	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
20	**0**	**21864**	**5206**	**368**	**0**	**0**	**703**	**166**	**0**
21	**0**	**0**	**66**	**0**	**0**	**0**	**0**	**0**	**0**
22	**0**	**0**	**1548**	**0**	**0**	**0**	**0**	**907**	**0**
24	**0**	**0**	**300**	**0**	**0**	**0**	**0**	**0**	**0**
25	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
26	**0**	**0**	**304**	**0**	**0**	**0**	**0**	**0**	**0**
27	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
35	**1358**	**0**	**274**	**0**	**0**	**0**	**130**	**214**	**0**
Total	**1358**	**21864**	**7698**	**368**	**0**	**0**	**833**	**1288**	**0**

WATER ADMINISTRATION DATA SUMMARIES

WATER DIVERSION SUMMARIES FOR VARIOUS USES - IRRIGATION YEAR 2008

WD	AUGMENTATION	EVAPORATION	GEOTHERMAL	SNOW-MAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
20	3316	192	0	0	0	240	6189	6274	590
21	5	5	0	0	0	0	0	153	0
22	7759	0	0	0	0	0	0	271	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	1086	0
27	336	0	0	0	0	0	0	2509	0
35	236	0	0	0	0	0	0	0	0
Total	11653	197	0	0	0	240	6189	10293	590

Compact Administration

2008 RIO GRANDE COMPACT REPORT

Preliminary Figures

	Acre-feet
1. Adjusted Rio Grande Index	708,500
*Adjusted Rio Grande Delivery	216,900
Required Rio Grande Delivery	208,200
Less Paper Credit per agreement	5,000
Net Required Rio Grande Delivery	203,200
2. Adjusted Combined Conejos Index	402,500
**Adjusted Conejos Delivery	177,000
Required Conejos Delivery	190,200
Less Paper Credit per agreement	5,000
Net Required Conejos Delivery	185,200
3. ***Total Delivery at Lobatos	393,900
Total Required Delivery at Lobatos	398,400
Less Paper Credit (See Compact)	10,000
Net Required Delivery at Lobatos	388,400
Margin	-5,500

4. Rio Grande Curtailment

Delivery Target	(% of Index)	Estimated Curtailment of Ditches	(% of Index)
January 1 – April 13	100%	January 1 –April 13	100%
April 14 – May 5	31%	April 14 – May 5	31%
May 6 – June 3	22%	May 6 – June 3	22%
June 4 – June 12	18%	June 4 – June 12	18%
June 13 – June 23	13%	June 13 – June 23	13%
June 24 – July 2	11%	June 24 – July 2	11%
July 3 –July 14	9%	July 3 – July 14	9%
July 15 – July 25	7%	July 15 – July 25	7%
July 26 – August 5	6%	July 26 – August 5	Returns%
August 6 – November 8	0%	August 6 – November 8	0%
November 9 – December 12	recharge%	November 9 – December 12	recharge
December 13 – December 31	100%	December 13 – December 31	100%

5. Conejos Curtailment

Delivery Target	(% of Index)	Estimated Curtailment of Ditches	(% of Index)
January 1 – April 13	100%	January 1 – April 13	100%
April 14 – May 5	52%	April 14 – May 5	52%
May 6 – June 3	45%	May 6 – June 3	45%
June 4 – June 12	40%	June 4 – June 12	40%
June 13 – June 23	36%	June 13 – June 23	36%
June 24 – August 5	39%	June 24 – August 5	39%
August 6 – August 19	29%	August 6 – August 19	29%
August 20 – September 15	18%	August 20 – September 15	18%
September 16 – November 4	0%	September 16 – November 4	0%
November 5 – December 31	100%	November 5 – December 31	100%

*Includes 7,826 a.f. of the creditable Closed Basin Project production.
**Includes 5,218 a.f. of the creditable Closed Basin Project production.
***Includes all the creditable Closed Basin Project production (13,044 a.f.).

Water Court Activities
January 1 – December 31, 2008

Water Court Applications in 2008 - Type of Claim

Type of Claim	Number of Cases	Number of Structures
Underground Water Right	0	0
Surface Right	0	0
Storage Right	0	0
Plan for Augmentation	2	N/A
Exchange	0	0
Change of Underground Water Right	9	23
Change of Surface Right	2	3
Change of Plan for Augmentation	1	N/A
Declaratory Judgment	0	0
Injunctive Relief	0	0
Approval of Management Plan	0	N/A
Verified Complaint	5	N/A
Finding of Diligence	5	6
Instream Flow Right	0	0
Diligence - Make Conditional Absolute	4	8
Total	28	40

Note- Some applications in 2008 contained more than one type of claim or action (e.g. Change of Water Right and Plan for Augmentation). The type of claim was tabulated above under only one category of application.

Type of Decree Entered in 2008

Type of Claim	Number of Cases	Number of Structures
Finding of Diligence on Conditional Rights	4	7
Cancellation of Conditional Rights	0	0
Conditional Right Made Absolute	2	2
Conditional Right Adjudicated	0	0
Surface Right Adjudicated	4	5
Underground Right Adjudicated	6	8
Injunction: Abandonment	0	0
Instream Flow	2	2
Plan for Augmentation Adjudicated	3	N/A
Change of Surface Right Adjudicated	2	2
Change of Underground Right Adjudicated	47	64
Change of Plan for Augmentation	1	35
Claim Denied	4	4
Total	75	129

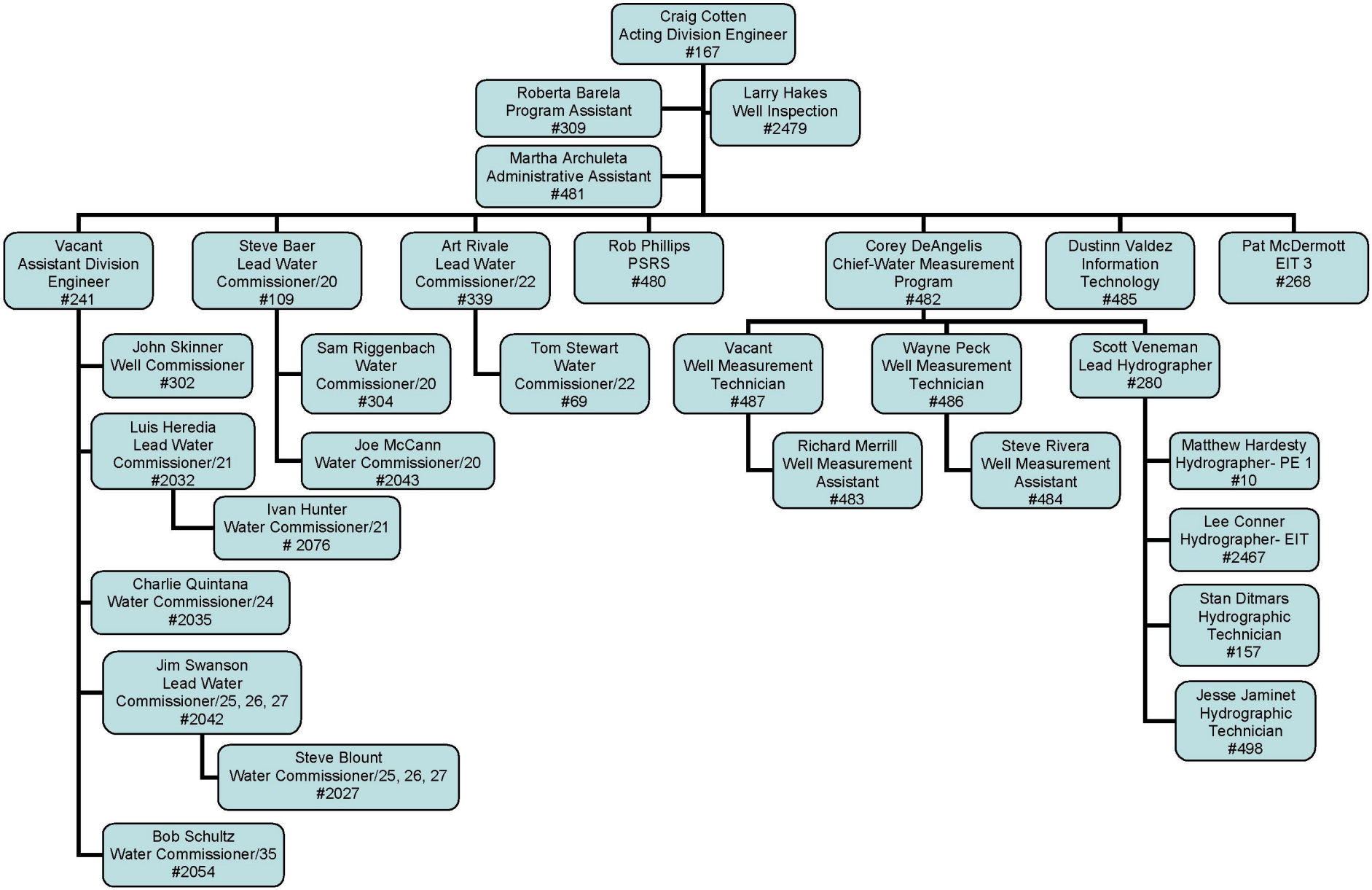
Water Court Activities January 1 – December 31, 2008

Number of Open Cases as of December 31, 2008:	45
Number of Cases Dismissed in 2008:	6
Number of Cases Withdrawn in 2008:	1
Decrees Issued by the Court in 2008:	75
Cases Closed in 2008:	82

DIVISION III ACTIVITY SUMMARY
2008 CALENDAR YEAR

ACTIVITY	TOTALS
Number of structures observed	1656
Number of surface rights	2892
Number of reservoirs*	362
Number of wells**	23305
River measurements	932
Ditch measurements	88
Dam inspections	18
New water rights administered	15
Number of Augmentation Plans	105
Plan of Augmentation Structures***	1075
New Plans of Augmentation	3
Wells administered**	23305
Active SSPs	6
Applications for decrees	28
Decrees issued by Water Court	75
Division Engineer Recommendations Filed	74
Water Court Appearances	249
Well permits issued	374
Professional and Technical Staff	17
Clerical Staff	2
Water Commissioner FTE (Full/Part-Time)	5/4.7

e: this number estimated due to variables in Hydrobase
* includes Non-Jurisdictional Impoundment filings
** includes permits
*** includes “domestic” wells under aug plans. # calc from Hydrobase & Welltools data.


Craig Cotten
Acting Division Engineer
#167
Roberta Barela
Program Assistant
#309
Larry Hakes
Well Inspection
#2479
Martha Archuleta
Administrative Assistant
#481
Vacant
Assistant Division Engineer
#241
Steve Baer
Lead Water Commissioner/20
#109
Art Rivale
Lead Water Commissioner/22
#339
Rob Phillips
PSRS
#480
Corey DeAngelis
Chief-Water Measurement Program
#482
Dustinn Valdez
Information Technology
#485
Pat McDermott
EIT 3
#268
John Skinner
Well Commissioner
#302
Luis Heredia
Lead Water Commissioner/21
#2032
Ivan Hunter
Water Commissioner/21
2076
Charlie Quintana
Water Commissioner/24
#2035
Jim Swanson
Lead Water Commissioner/25, 26, 27
#2042
Steve Blount
Water Commissioner/25, 26, 27
#2027
Bob Schultz
Water Commissioner/35
#2054
Sam Riggenbach
Water Commissioner/20
#304
Joe McCann
Water Commissioner/20
#2043
Tom Stewart
Water Commissioner/22
#69
Vacant
Well Measurement Technician
#487
Richard Merrill
Well Measurement Assistant
#483
Wayne Peck
Well Measurement Technician
#486
Steve Rivera
Well Measurement Assistant
#484
Scott Veneman
Lead Hydrographer
#280
Matthew Hardesty
Hydrographer- PE 1
#10
Lee Conner
Hydrographer- EIT
#2467
Stan Ditmars
Hydrographic Technician
#157
Jesse Jaminet
Hydrographic Technician
#498

Well Meters


Jesse Measuring Water


Streamflow Training Day


preparing for a cold night