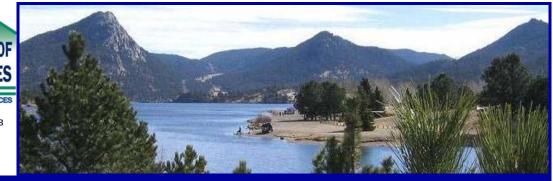


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# 2005 Annual Report

Message from Hal Simpson, State Engineer

The calendar year 2005 was an eventful year in many ways for the Division of Water Resources (DWR). We had two outstanding Division Engineers retire after investing their entire careers of over 30 years each with DWR. Steve Vandiver retired as Division Engineer for Division 3 in August and Ken Beegles retired as Division Engineer for Division 7. Fortunately, the Assistant Division Engineers in each division were well prepared to be appointed as the new Division Engineers, with Mike Sullivan in Division 3 and Bruce Whitehead in Division 7. We expect other Division Engineers to retire next year as they deal with salaries not competitive with the job market as a result of the salary cap on state salaries imposed by the legislature. I also fear that other senior staff engineers will leave as they are being offered higher salaries in the private sector. The top four levels of professional engineers are all paid the same due to the salary cap and this provides little incentive to move to job openings in DWR at other locations in the state since there is no additional salary possible. Hopefully, this will be addressed by the Legislature in the near future before we lose our senior engineering managers.

In the Arkansas River Compact interstate litigation, I was able to hold a series of intense negotiation meetings with David Pope, Chief Engineer for the Kansas DWR on several of the issues not resolved by the Special Master's fourth report to the U.S. Supreme Court. We met for a period of eleven days in Denver and Topeka using our senior staff engineers to assist us. We were able to reach agreement on nine issues in separate signed agreements. We signed the agreements at the historic Mission Inn in Riverside, California on September 30, 2005 and presented them to the Special Master later that morning at his office in Riverside. He was pleased that we were able to resolve these issues and avoid lengthy and expensive arbitration, and allow him to issue a final report and decree. I anticipate using the same procedure next year to negotiate agreements on about fifteen unresolved accounting issues for John Martin

Reservoir assigned to a Special Engineering Committee by the Arkansas River Compact Administration in December 2005.

The DWR had to curtail the pumping of over 1500 wells in the South Platte River basin in 2005 due to a lack of available augmentation water and the inability to file a plan for augmentation with the water court. This was not an easy task for the staff of Division 1 and we have requested additional field staff to assist in these enforcement actions. As always, I feel most fortunate to have outstanding dedicated staff to assist us in achieving our mission and assisting the water users with their various needs and questions.

San Juan / Dolores



Public Information Officer Marta Ahrens

## South Platte River Basin—Division 1

Division 1 staff continue to look for opportunities to respond to the ever increasing challenges created by growth and resultant conflict over water use. Staff have put together a series of graphs showing increases in the number of individual daily diversion records, the number of call changes per year on the mainstem of the South Platte, the number of water rights in Division 1, and the number of augmentation plans in Division 1.

Staff was very active in new water court applications to obtain augmentation plans by well user groups. Of note, the Division actively participated in the Central Colorado Water Conservancy District's Groundwater Management Subdistrict plan decreed in 2005 to assure that there was no injury and that the plan could be administered. This is by far the largest irrigation well augmentation plan ever decreed in Division 1 with approximately 1,000 wells.

Water year 2005 turned out to be a

Arkansas River Basin—Division 2

The water supply within the Arkansas River Basin of Colorado in 2005 was better than average. The supply was significantly better than in either of the two previous years.

In February 2005, a Substitute Water Supply Plan was renewed that allowed the cities of Aurora and Colorado springs to utilize consumable water from dry-up of 8,251 acres under the Highline Canal. The plan approval limited total consumptive use credits to be derived under the plan based on historic conditions to 18,838 acre-feet and limited the export of consumable water from the Arkansas River Basin to the South Platte Basin to 12,600 acre-feet.

Efforts continued to improve and

good year for municipal, industrial and irrigation users along the South Platte. This was due in part to better reservoir carryover than in recent years, a fairly wet spring, and timely precipitation events during the summer. Significant municipal reservoirs including Dillon, Spinney, Cheesman, and Standley were near full. This was an encouraging sign for next season.

Reservoir storage continued in December, January and February along the mainstem and tributaries. Calls for storage continued throughout the basin except below the Prewitt inlet on the lower end of the Platte. Calls for storage also existed on tributaries, the normal situation during the winter. Storage levels remained at a much better place than the last few years. By the end of February, staff were fairly confident that the large inbasin reservoirs would fill in the early spring of 2005. Of some concern, a very early direct call for irrigation was possible if conditions remained dry. This would curtail storage prior to all of these reservoirs filling.

Although snowpack was average or less by June, Division 1 had an open river with no call below Denver for most of the month due in part to the very wet conditions on the plains in May. This was the first time that this occurred in several years during June. Irrigators on the plains were able to divert enough water for direct use and to maintain their reservoirs full. The free river also allowed the opportunity for extensive recharge within the basin. This recharge provided significant augmentation water to replace well depletions from pumping irrigation wells.

Division personnel continue to be actively involved in the South Platte Lower River Group. This involvement includes both the Endangered Species Recovery Plan efforts for the South Platte and efforts to improve the efficiency of information gathering related to water diversions and well augmentation plans.

streamline the processing of orders dealing with surface diversion violations. The Functional Standards under development in the prior year were further improved and increased in scope to include standards for data loggers and telemetry.

Staff continued to assist the public with questions relating to repermitting existing wells for expanded uses, new wells for new subdivisions, and reinstatements of expired permits. A considerable amount of time was spent with realtors, county officials, and water users regarding laws impacting permit approval and changes to permits. A total of 70 wells were approved for new lots and re-permitting existing wells under a blanket augmentation plan sponsored by the Upper Arkansas Water Conservancy District.

Staff worked to improve coordination with well owners because allowable pumping continued to be restricted due to limited replacement sources. Enforcement efforts were quite critical during times of restrictions. Ground Water Operations continued to work closely with the regulated community to assure compliance without creating hardship for the well owners/users. Personal contact was made whenever possible and, if that was not feasible, calls were made to advise well owners/users of potential over-pumping. Staff continued to be involved in the community by attending meetings held by the ground water associations and conservancy districts.

# Rio Grande Basin—Division 3

The year 2005 was a year with above average flows. Unfortunately, it followed four years of much below normal flow. The depleted alluvial aquifers and constantly changing forecast made distributing water to the ditches and delivering water for compact purposes an exercise in frustration. The year started out with the highest snowpack in 30 years. Fluctuating hot and cold weather caused the river peak to rise and fall like a diurnal. However, the high snowpack (130 to 140 percent) did not deliver high index flows. Indexes were roughly 120 percent of normal on the Rio Grande and the Conejos systems. On Saguache Creek in the northern part of the basin, the flows were only 80 percent of normal.

In June of 2005, the DWR promulgated rules on the measurement of ground water in Division 3. Titled, "Rules Governing the Measurement of Ground Water Diversions Located in Water Division 3, The Rio Grande Basin," these rules call for the metering of all non-exempt wells over fifty gallons per minute located in Division 3. The Rio Grande Water Users Association filed an objection to the rules, citing among other things, a concern that meter manufacturers may not be able to supply reliable well meters in a timely manner. The deadline for having meters installed on these wells is March 1, 2007.

The continuing impacts of the drought in 2002-04 were felt far and wide in the entire valley. The depletion of ground water supplies and the dry antecedent conditions caused much concern and changes to normal administration. River transit losses that occurred in 2002-04 continued to be an issue in 2005 when high compact obligations required additional curtailment to make delivery. There were higher than normal diversions into the Closed Basin again during the year. However, late season dryness required heavy reliance on well pumping in the latter half of the season.

Division staff continued to make concerted efforts to address numerous issues regarding the use of ground water. Since there are no ground water administration rules in effect, the staff 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.

Steve Vandiver, Division Engineer, retired August 31, 2005 after 32+ years with the DWR, 24 of which were as Division Engineer. Steve's experience and influence will be missed, but he will continue to work in water as the Manager of the Rio Grande Water Conservation District.

#### Gunnison River Basin—Division 4

The 2005 water year brought a welcome relief from the dry trend of the previous six years in Water Division 4. Water supply conditions were markedly better than those of the previous year, particularly across the northern reaches of the Gunnison Basin. The San Miguel Basin was also wetter than normal. The April 2005 snowpack was 134 percent of normal, which was a significant improvement over the 79 percent of normal averaged over the previous five years. Actual water supply conditions were not as good as these figures indicated, since the aquifers and large reservoirs of the basin remained impacted by the belowaverage snowfall of previous years. Fortunately, late-summer rains continued to improve carryover storage levels in area reservoirs such as Blue Mesa.

The above-average snowpack, particularly on the Grand Mesa, resulted in

fewer administrative calls during the summer of 2005. The Granby Reservoir system on the west end of Grand Mesa did not experience a call for the first time in over 30 years.

The state's largest reservoir, Blue Mesa, had only 267,000 acre-feet in live storage to begin the 2003 irrigation year (November 1, 2002), but has gradually gained storage over the past three years. This gaining trend continued throughout the 2005 water year as it began the period with 480,000 acrefeet in live storage and ended with 576,000 acrefeet.

Precipitation totals for the 2005 water year were generally above average, and the growing season began with May and June receiving near-normal amounts of precipitation. The month of July was significantly drier than normal, followed by above average rainfall in August, September and October. Due to an abundant snowpack and an unusually warm period in mid- to late-May, flooding was a concern in the northern portions of the Gunnison Basin.

Some major water issues included a coordinated effort with the USFS, utilizing DWR's water rights database of ditch structures, to map and locate the ditches involved to process applications under the Ditch Bill; meetings continued on the Aspinall EIS process, with a subgroup established to evaluate alternatives and how they will affect the operations of the Aspinall Unit; and, the Upper Gunnison River Water Conservancy District obtained a court decree for their plan of augmentation, which was a key component for protection of Gunnison River RICD and the Slate River Instream Flow Right.

# Colorado River Basin—Division 5

The 2005 irrigation year continued a 25-year trend with the basin-wide reduction in irrigated acres. This trend is the result of continued urbanization of agricultural land. The peak of irrigated acres was in the mid-1970s.

The irrigation season began following a wet Fall of 2004. On February 1, the snow-water equivalent for the entire basin was 105 percent and runoff forecast was 93 percent at the Colorado River near Cameo gage. Precipitation through June 1 was 93 percent of average and 121 percent of 2004. The June 2005 runoff condition of the basin was the best seen since 1999. Reservoir storage in January was nine percent less than January 1, 2004 and 81 percent of normal storage. By early July, all reservoirs in the basin had filled with the exception of Granby, Homestake, and Wolford Reservoirs. This was a major improvement over 2004 when only Vega Reservoir had filled.

The Shoshone Hydro Power Plant had their senior call on for 1250 cfs for approximately 70 percent of the irrigation water year and about 50 percent of the irrigation season, May through October. The Colorado Water Conservation Board (CWCB) put on a division-wide call for their minimum streamflows.

This was the ninth year of Coordinated Reservoir Operations under the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River. Releases for the endangered fish in the 15-Mile Reach increased substantially this year. The 15-Mile Reach is on the mainstem and extends from Palisade to the confluence with the Gunnison. The endangered fish include the Colorado pike minnow, humpback chub, bony tail chub, and razorback sucker.

A noteworthy item, which can be considered the most significant dam

safety highlight, was to fly over areas of high snowpack with runoff related problems to observe whether any dam safety problems were occurring. The cooperation of the Division of Wildlife to use their planes and a pilot for this endeavor was greatly appreciated. It was estimated that approximately 40 dams were viewed from the air in areas not readily accessible due to the high snowpack. Of these 40 dams, potential problems were identified for about five dams (three of which are Class 1). Prompt ground inspections were then accomplished for all five dams by water commissioners and dam safety engineers, which confirmed that two Class 1 dams had significant problems related to snow blockage in the spillways. The owners of these dams were instructed to remove the snow and they complied. Without the flight and the follow-up, it is conceivable that overtopping failures could have occurred due to the snow blockage and rapid runoff that was occurring.

### Yampa/White River Basins—Division 6

Precipitation amounts varied widely across the Division. There seemed to be no general pattern as below average months were followed by above average periods, then back to belowaverage.

Streamflows held up fairly well for most of the summer. The heavy precipitation in June kept most river flows above average until mid-July. From mid-July through September, flows dropped as precipitation was less than normal. The two exceptions were the upper Little Snake River drainage and the Elk River. Both of these rivers had streamflows at or above average for the entire summer.

The States of Utah and Colorado finalized the revised Memorandum

of Understanding (MOU) between the states dealing with the administration of Pot Creek. The State Engineers of the respective states signed the revised MOU with an effective date of March 1, 2005. Because of the impending runoff season, the provisions of the MOU were waived for the 2005 irrigation season to allow users in both states time to install measuring devices and headgates.

In January, the U.S. Fish and Wildlife Service issued a Final Programmatic Biological Opinion on the Management Plan for Endangered Fish Species in the Yampa River Basin. The issuance of this biological opinion brings to a close nearly a decade of work by federal and state agencies, and water user groups in the basin. Under this opinion, water users in Colorado will be covered for additional depletions of up to 30,000 acrefeet per year, and Wyoming for 23,000 acre-feet per year through 2045. The issuance of this opinion also allowed the expansion of Elkhead Reservoir to begin. The enlargement of Elkhead Reservoir will provide a permanent pool of five thousand acrefeet for flow augmentation in the river for the endangered fish species.

High Savory Dam, located on Savory Creek, filled for the first time in the spring. Completed in 2004, the reservoir was not expected to fill in 2005. Because of the early fill, the state of Wyoming conducted test releases to determine transit losses from the dam site to the Little Snake River.

# San Juan/Dolores River Basin—Division 7

Due to winter storm patterns that were tracking from the southwest through the Four Corners region, the San Juan/Dolores River Basins in Division 7 were blessed with a 145 percent of normal snow pack at the end of March, and 138 percent at the end of April of 2005. In anticipation of the spring runoff, some higher elevation reservoirs in the area began evacuation of storage water in the early spring to make room for the forecasted inflow while attempting to prevent a physical spill of water.

Many of the areas which typically require water administration due to shortages did not go on call this year due to the abundant water supplies, and the rivers or creeks that did go on call generally had a shorter administrative period.

The La Plata River experienced high flows early in the spring due to low elevation snow melt, and did not require Compact administration until a

#### Compact call was received from New Mexico on June 6. The La Plata River was a live river (maintained hydraulic connection) throughout the irrigation season, but a limited amount of split river administration was required beginning in August when excess flows in the lower end of the system exceeded the compact requirement for New Mexico.

The City of Durango continued to study and explore the possibility of filing for a Recreational In-Channel



San Juan River in Pagosa Springs, May 2005

Diversion (RICD) water right for a reach on the Animas River. The driving force behind the filing for the recreational flow is the Animas River Task Force, which is mainly comprised of local kayak and rafting enthusiasts. The potential call for an RICD water right by Durango also could change the designation of the Animas to a water critical area for the purposes of well permitting, which could limit the wells that could be permitted absent a plan of augmentation.

Construction continued on components of the Animas-La Plata Project. Significant progress has been made on both the Animas River Pumping Station in Durango and the dam construction at Ridges Basin Reservoir.

Ken Beegles, retired from the position of Division Engineer on November 30 after 30 years of service with the Division of Water Resources. He plans on staying involved in water issues in the Durango area.

## Dam Safety Activities

The State Engineer's Office approved the plans and specifications for nine new dams and for a total of 35 alteration, modification, or enlargement projects of existing dams. The estimated cost of construction for submitted plans and specifications was over \$38.5 million.

Construction and progress continued on the Rueter-Hess Dam and Reservoir Project located in northeastern Douglas County. It was developed by the Parker Water and Sanitation District to provide raw water storage to meet current and future municipal and industrial water needs. Construction officially began in October 2004 with completion expected in the summer of 2007. The new reservoir will allow Parker to capture an amount of water equal to what it discharges from its wastewater plant.

A large construction project began in the Spring to add a 20-foot raise to Elkhead Creek Dam near Craig. Most of the concrete work at the site was completed before winter shutdown. This project will add approximately 12,000 acre-feet of storage to the Yampa River drainage. The enlargement is scheduled for substantial completion in the fall of 2006. Planning work is ongoing by the Upper Yampa Water Conservancy District to determine the feasibility of raising the spillway crest of Stagecoach Dam by four or five feet to increase storage on the Yampa River.

Discussions began between the Dam Safety Branch and consulting hydro-

meterologists regarding the use of Geographic Information System (GIS) technology to solve the long-standing extreme precipitation dilemma. A proposal was developed to provide an Extreme Precipitation Analysis Tool (EPAT) for use in dam safety and rehabilitation studies within specific regions of the state.

The Dam Safety Branch embarked on a program to utilize risk-nased methods to rank dams according to potential failure modes and consequences. The goal of the program was to develop a relatively simple software tool to quickly rank the relative condition of High Hazard and Moderate Hazard dams in the state to more efficiently allocate resources to those dams determined to present the greatest risk to public safety.

# Revision to Dam Safety Rules and Regulations

A serious effort was made toward the revision and updating of the Rules and Regulations for Dam Safety and Dam Construction, (Rules) which were last revised in 1988. Major steps were taken in the revision process and the proposed revisions were presented to all the dam safety engineers for review and comment. Following several months of vigorous review and discussion within the Dam Safety Branch, the proposed rules were posted on the Dam Safety Branch web site for public comment. Several presentations were made to the engineering communities on the Front Range and the western slope to describe the proposed Rule revisions and elicit comments.

The key changes to the rules as described in the public presentations included: elimination of the Intermediate dam size; revision and updating (to National Standards) dam hazard classification nomenclature; revisions to the methodology for determining the Inflow Design Flood and spillway sizing; reduction of Probable Maximum Precipitation (PMP) due to elevation effects; and general update and clean-up. Several consultant-lead committees were formed to take a closer look at updating specific sections of the rules. The committees provided their comments to the Dam Safety Branch for consideration and possible inclusion into the new rules. This process of open review and comment resulted in positive communication between the dam owners, their engineers and the State Dam Safety Regulators. This communication has allowed all to agree that the safety of general public is of paramount concern when discussing the operation and regulation of dams in Colorado.

## Hydrography and Satellite Monitoring Activities

The year of 2005 ushered in acoustic technology for the hydrography program in Division 4. A pilot Acoustic Doppler Current Profiler (ADCP) program, funded by CWCB and USBR, uses Doppler technology to determine the depth and velocity of a stream cross-section. The sensing unit is mounted to a small plastic boat and is moved back and forth in the measuring section from a bridge or bank-operated cableway. The measurement takes only a few minutes, so it can be taken numerous times and averaged.



ADCP Stream Pro at Redlands Power Canal near Grand Junction

This device has proven to be a valuable tool. It has been found to increased ability to make additional canal measurements, and this has given better service to water commissioners. The number of administrative measurements on several local canals has more than doubled.

A total of 231 streamflow records were prepared for publication in water year 2005. Of these, 35 records will be published by the USGS Colorado Water Science Center in their annual streamflow data report for WY05, and the New Mexico office of the USGS will publish four.

Several new gaging stations were added to the satellite monitoring system in 2005. Typically, new gages are added as the result of the identification of a critical water administration need. Existing gaging stations, not previously on the Satellite Monitoring System, are also often candidates for adding satellite equipment where water administration needs have increased. Gage cooperators pay the capital costs associated with these new or upgraded stations. Annual maintenance agreements with cooperators on these gages are also entered into.

The high data rate (HDR) data collection platform upgrade project continued this year. CWCB funding in the amount of \$248,000 was received in support of this ongoing activity. Included in this funding is the cost of the replacement data collection platforms plus upgraded shaft encoders and grounding systems. Often, gage power supply equipment (batteries, solar panels, charging regulators) and antennas also need upgrading along with the new DCP. A total of 65 State of Colorado DWR-owned data collection platforms were upgraded in 2005 from satellite transmissions once every four hours at 100 bps to hourly satellite transmissions at 300 bps. Currently, 65 percent, or 260 out of 400 State of Colorado DWR data collection platforms, have been upgraded to high data rate.

Flood hardening of gaging stations, which might involve moving gages to higher ground, installing redundant gage height sensors, bank stabilization and protection, rating extensions, improved high flow measurement capability, or some other means of fortifying gage stations to enhance data collection and processing during flood events, continues to be one of DWR's top priorities. The CWCB provided \$50,000 funding this year for the continuation of flood hardening projects.

# Developments in Kansas v. Colorado

A status conference was held on February 4, 2005 between the Special Master and the attorneys for Kansas and Colorado. The Special Master ordered the states to submit a schedule within 30 days for expert meetings to resolve the remaining issues in dispute. The attorneys and experts agreed on a schedule for meetings that occurred from April through September to attempt to resolve remaining disputes. Intensive meetings between the Colorado State Engineer and the Kansas Chief Engineer and their staff began on August 15 and continued through September 23 with a total of eleven days of negotiations taking place at locations in Colorado and Kansas. The meetings of experts and negotiation meetings resulted in the following issues being resolved and agreed to:

- amendments to the well measurement rules that would implement the findings of the USGS to improve accuracy associated with power conversion and totalizing flow meter measurement methods;
- acreage figures from Colorado's acreage verification program and assessment of satellite imagery and aerial photography;
- proper representation in the model of the various replacement plan water sources, and acceptance or rejection of credits from various sources;
- several model calibration issues;
- improvements in monitoring and documentation of dry-up and feed-

back from Kansas; and

• methodology for determining credits for Offset Account deliveries to the stateline, and return flow obligations and representation of transit losses and evaporation in the H-I Model.

One issue related to the Graham Ditch water right was not resolved by meetings of the experts or negotiations and was submitted to arbitration. Arbitration hearings were conducted in Nebraska by Roger K. Patterson (former Nebraska State Engineer) from November 15 to 17. Arguments by Colorado and Kansas were presented by experts from each state. A ruling regarding the issue was handed down in December 2005 in favor of Colorado.

# Republican River Compact

Division of Water Resources staff continued to work collaboratively with the Republican River Water Conservation District and water users in the Republican River Basin. The primary target of these activities was development and participation in federal irrigated land retirement programs such as the Conservation Reserve Enhancement Program (CREP) and the Surface and Ground

## **Rio Grande Compact**

The administration of the Rio Grande Compact was rather challenging in 2005. A snowpack approximately 140 percent of normal in the San Juans yielded a hydrograph of 120 percent of normal. The poor antecedent conditions and dewatering of the alluvial aquifers over the past four years resulted in significant transportation losses during 2005. The Rio Grande and Conejos Rivers had significant Compact obligations for the year because of the initial forecasted index supply. Irrigation did not start until after April 1. Water Conservation Program contained within the Environmental Quality Incentives Program (EQIP).

The Republican River Water Conservation District worked with DWR staff to develop a \$60 million Conservation Reserve Enhancement Program that seeks to voluntarily retire 30,000 irrigated acres throughout the basin. With the Farm Service Agency providing 80 percent of the necessary funding, many producers will have the opportunity to receive payment for idling cropland for 15 years and permanently retiring their water. In 2005, the Natural Resource Conservation Service conducted its second annual sign up under the Environmental Quality Incentive Program and anticipates retiring another 3,000 irrigated acres in 2006.

Overall, Colorado started the year with an accrued credit of 4,400 acrefeet as of January 1, 2005 and ended the year with a total accrued credit of 4,700 acre-feet. The release of water from Rio Grande Project Storage in 2005 totaled 677,100 acre-feet. This is approximately 85 percent of a normal release for the project. Usable Project Storage at the beginning of 2005 was 170,800 acre-feet, with 40,000 acre-feet of credit water additionally in storage. Useable Project Storage was 407,600 acre-feet at the end of December 2005 with 41,800 acre-feet of credit water in storage (4,700 for Colorado and 37,100 for New Mexico).

The Rio Grande Compact meeting was held on March 31, 2005, in Santa Fe, New Mexico. New Mexico approved the accounting sheets for 2005 because the Rio Grande Compact Commissioners directed the U. S. Bureau of Reclamation to hold credit water constant during the year and calculate evaporation at the end of the year as compact accounting originally occurred.



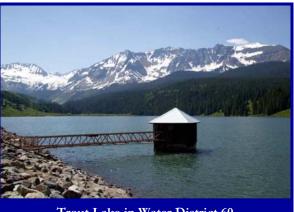
The DWR reviewed and acted upon 209 general substitute water supply plans (including emergencies) and 59 SWSPs related to gravel pits. In addition, a total of 426 subdivision referrals were received and acted upon.

The ground water evaluation staff received and acted upon 8,931 applications for well permits in 2005. Of this, 443 were emergency applications for replacement wells. The well permitting staff continued to process and analyze well permit applications, 1,161 Monitoring-Hole Notices, 5,731 Changes in Ownership/Address, 7,477 Well Construction and Test Reports, and 4,066 Pump Installation Reports.

The Designated Basins staff issued 696 small capacity well permits, 247 large capacity permits/Determination of Water Rights, 62 change application approvals, were involved in 22 enforcement actions, and issued 34 final permits. Staff participated in 22 Ground Water Commission administrative and/or court cases.

During FY 04-05, a total of 699 dam safety inspections and 190 construction inspections were conducted for a total of 888 inspections. In addition, 122 follow-up inspections were performed. At the conclusion of the reporting period, there were 189 dams restricted from full storage due to various structural deficiencies such as significant leakage, cracking and sliding of embankments, and inadequate spillways. Total storage restricted was 134,492 acre-feet. Approximately half of the dams on the Colorado Division of Water Resources restricted list have been on that list for ten years or longer.

1,399 Water Court applications and 35 Statements of Opposition and Motions to Intervene were filed on behalf of the DWR. The number of applications or cases filed in Water Court continued to decline for the third consecutive year.



Trout Lake in Water District 60

The Modeling Branch worked vigorously to complete development and calibration of the Rio Grande Decision Support System ground water models to promulgate rules and regulations for new wells located in the confined aquifer of the San Luis Valley. Legislation required the rules and regulations to be in place on July 1, 2004. The South Platte Decision Support System (SPDSS) moved into the second of six phases of implementation with most activities focused on data collection.

On November 21, 2005, four ranchers from near the Fruitland Outcrop in Division 7 filed a Complaint for Declaratory Judgment, asking the court to require the state and Division Engineers to permit and administer coalbed methane wells as water wells. On December 12, 2005, the engineers filed their Answer and Motion to Dismiss, asserting that the water court does not have jurisdiction to hear the matter; only the Oil and Gas Conservation Commission has jurisdiction over gas wells, including CBM wells.

DWR's Information Technology Section has reached a level of maturity and reliability unmatched in the past. The achievements of 2005 include a new and improved public web site, interactive mapping on the web, and an increased ability to handle complex augmentation plan data.

The Rio Grande Decision Support System (RGDSS) project moved into Phase 5, the maintenance phase. The South Platte Decision Support System (SPDSS) wrapped up Phase 2 and moved into Phase 3 (six phases planned). Phase 2 focused mainly on data collection, mapping of the Denver Basin aquifer system and the South Platte alluvium, and collection and analysis of aquifer parameter and water level data.

An average of 750 new well permit documents are scanned into the imaging system each day by Records Technicians. All documents are checked for quality and indexing information and are filed and stored accordingly. Daily prepping and scanning has expanded in the final months of 2005 to include imaging of court case documents as well.