COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES

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2001 Annual Report

The Colorado Division of Water Resources strives to be a leader in the water community of Colorado and the western United States

Message from Hal Simpson, State Engineer

The year 2001 provided the Division of Water Resources with many challenging opportunities to address important issues affecting the citizens of Colorado, all of whom are water users. These issues included drought, water resource management, interstate water conflicts, and conjunctive use of surface and ground water. The staff responded in their usual professional and competent manner to these extraordinary challenges.

Drought conditions were evident in most river basins with those in the northern half of the state being most impacted. In the South Platte River basin, low snowpack resulted in well below average runoff and an extended period of call by senior water rights. As a result, the three well augmentation organizations had to acquire additional sources of replacement water, which was difficult but they were successful with considerable technical assistance from Dick Stenzel, Division Engineer, and his staff. The alluvial aquifer of the South Platte River provides a significant resource, especially in dry years if conjunctive use of surface and ground water can be accomplished that reasonably protects senior water rights while maximizing the use of water.

The interstate compact litigation concerning the Republican River in northeast Colorado took considerable time and effort as we prepared for trial on an accelerated schedule and, at the same time, conducted intense mediation discussions. Mediation efforts were encouraging and Special Master McKusick granted a stay until December, 2002 for ongoing settlement discussions.

On June 5, 2001, Governor Owens signed House Bill 01-1354. This legislation authorized a Pilot Water Bank for stored water in the Arkansas River Basin and directed the State Engineer to promulgate rules and regulations for the operation of the bank by July 1, 2002. This pilot bank was one of the recommendations of Governor Owens' Commission on Saving Open Spaces, Farms and Ranches. Several public meetings to obtain water user comments on the pilot bank's operation were held throughout the basin from August to October. Draft rules were submitted to interested parties in December for written comments. Final proposed rules will be published in February, 2002 and a rulemaking hearing will be held in Pueblo, Colorado in May. The Pilot Water Bank will operate until 2007. By November 1, 2005, the State Engineer must submit a report to the legislature on the success of the bank and whether it should be continued. The concept of a water bank for the lease of stored water to be used temporarily at other locations and different uses is an important step towards improved water management and provides farmers and ranchers an alternative to permanently selling water rights.

In closing, I want to thank the staff of the Division of Water Resources for its unfailing dedication to our mission, and for the ongoing outstanding public service to the water users of Colorado.

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Division of Water Resources

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Governor
Bill Owens

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Yampa / White
Kenneth A. Beegles, Division 7
San Juan / Dolores

New Augmentation Projects in Division 1

Over the last several years, the State Engineer has stressed the development of additional new replacement sources to augment pre-1969 wells. As a result of these efforts, significant additional recharge has occurred within the basin both in existing and new facilities, and an additional 36 sites in District 64 were developed for recharge in 2001. Twenty-one of the new recharge sites were developed under the Julesburg Irrigation District system. Total maximum diversions for recharge in the Julesburg District has been approximately 40 cfs. Due to better stream flow conditions during the spring of 2001 than in the previous year, users were able to divert into these sites during the spring beginning in March. North Sterling also began ditch recharging below the North Sterling Reservoir for the first time in addition to the in-ditch recharge that has occurred above the reservoir for several years. There are also new recharge sites under the Bravo, Pawnee, and South Platte ditch and all users on the South Platte have been very diligent in diverting water to recharge whenever water is available.

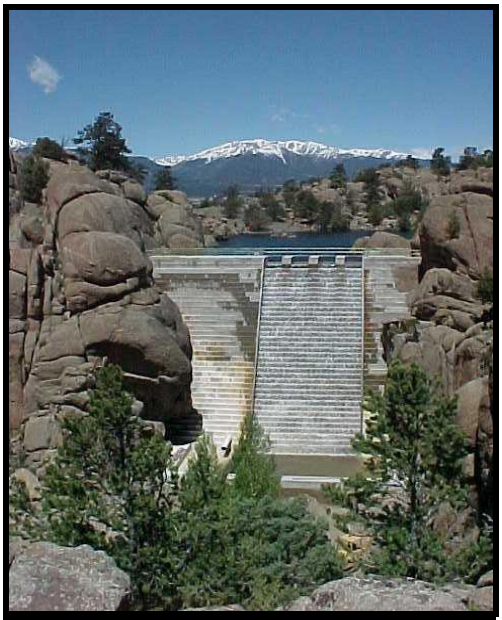
These sites included both recharge ponds and use of ditches that had never been used for recharge in the past. The total recharge in District 64 increased by 82% over the previous high of 20,812 acre-feet in 2000, to 37,890 acre-feet in 2001. Basin-wide, recharge increased by 29% from the previous high of 116,584 acre-feet in 1999, to 150,688 acre-feet in 2001. This recharge will help the Lower South Platte Water Conservancy District (LSPWCD) and the Ground Water Appropriators of the South Platte (GASP) assure that an adequate supply of replacement water is available to augment wells within District 64.

The LSPWCD and GASP also completed agreements, refurbished one well, and drilled a second far from the river that can be used as an augmentation source at the lower end of the river. These wells produced approximately 14 cfs, which were for replacement purposes on the lower end of the South Platte when conditions warranted their use to assure compliance with the South Platte River Compact. Contracts were also completed for five other wells that are located in the vicinity. The depletions from pumping these wells will occur for several years and extend over the whole year. Thus, the amount of replacement necessary to offset depletions associated with augmentation efforts for these wells will be significantly less than their pumping capacity.

Colorado's Dam Safety Program

The mission of Colorado's Dam Safety Program is to prevent loss of life and property damage, determine safe storage levels, and protect the state's water supplies from the failure of dams within the resources available. In spite of the Division's best efforts in the dam safety program, seven dams experienced serious problems. The number of incidents involving dams is of concern. In order to improve the dam safety program, a review of the rules and regulations, evaluation of existing dams, risk assessment pilot project, risk profiling processes and other procedures were initiated. The State Engineer submitted the Annual Report on the Dam Safety Program to the Legislature on November 1, 2001.

The Dam Safety Program currently schedules an engineering inspection of Class 1 (high hazard) dams annually, Class 2 (significant hazard) dams bi-annually, and Class 3 (low hazard) dams every six years. Due to limited resources in 2001, the staff utilized a risk-profiling methodology to delay inspections on those facilities that historically have been well maintained, are in satisfactory condition, and are subject to regular observation. A total of 682 inspections occurred in 2001. Inspections were slightly less this year than prior years due to limited staff support in Divisions 5 and 6. Several of the staff assisted with the necessary dam inspections in Divisions 5 and 6, accomplishing the inspections of the critical dams.



Recently completed Trout Creek Dam, south of Buena Vista, at the bottom of Trout Creek Pass. The dam is 70 feet high with a reservoir storage capacity of 645 acre-feet.

The determination of safe water storage levels resulted in storage restrictions at 198 reservoirs that resulted in an estimated 132,115 acre-feet of reduced storage. There were five new dams for which design data was reviewed, and thirty-four plans were submitted and reviewed for modifications, repairs, and enlargements. Six hydrology studies were reviewed and approved for spillway design. Approximately $22.3 million of construction was accomplished, resulting in $455,928 in fees collected for the review and filing of submitted plans.

Arkansas River Compact Litigation Continues

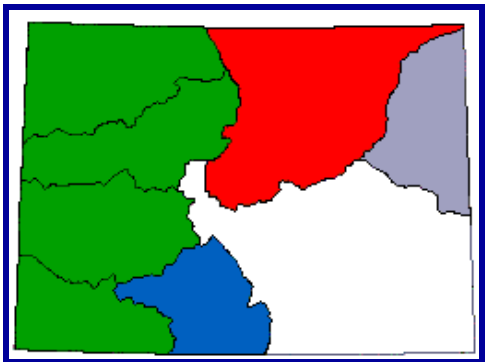
Work continued in preparation for a trial segment before the Special Master that will determine compact compliance for 1997 through 1999, and the ability of Colorado to comply with the Arkansas River Compact in the future using the "Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin" (Amended Rules) that were implemented in 1996. This work can generally be classified into the following areas:

- Developing and testing improvements to the Hydrologic Institutional Model (HIM) that is being used in this litigation;
- Evaluating the most recent report produced by Kansas experts that evaluates the performance of the replacement plans provided for by the Amended Rules during the period 1997 through 1999, and estimates the effectiveness of the Amended Rules in the future;
- Deposing Kansas' experts concerning their most recent report and analysis; and
- Preparing a rebuttal report to address the information presented in the most recent report by Kansas' experts.

The next segment of the trial is scheduled to take place in the summer of 2002.

Colorado's Decision Support Systems

The Division of Water Resources, in cooperation with the Colorado Water Conservation Board (CWCB), is involved in the management, development and maintenance of three decisions support systems; the South Platte Decision Support System (SPDSS), the Rio Grande Decision Support System (RGDSS), and the Colorado River Decision Support System (CRDSS). In 2001, significant effort was expended on the management of the RGDSS and the SPDSS development.



Shaded areas: Green - **CRDSS**; Blue - **RGDSS;** Red - **SPDSS;** White - envisioned for future development and includes the **Arkansas River Basin;** light blue - envisioned for possible future development and includes the **Republican River Basin**

Calendar year 2001 was the third year of development for the Rio Grande Decision Support System. Following are some of the major accomplishments:

- *Ground Water Component* – ground water data collection for the confined aquifer was completed; total well construction and geophysical testing now includes 15 monitoring wells; and a cooperative agreement was executed with the Rio Grande Water Conservation District to observe and publish daily water level measurements at each site;
- *Surface Water Component* - the state's surface model, StateMod, was enhanced to include variable efficiency, soil moisture accounting, and the Rio Grande compact; and 100% of the basin's consumptive use is included by modeling over 400 diversions, 2500 wells, 12 reservoirs and 28 instream flows;
- *Relational System Integration Component* - the ability to package and distribute data via compact discs was completed; a database refresh that includes all year 2000 data was performed; and the database viewing tool, StateView, was enhanced to include daily capabilities, a map-based query and viewing capability;
- *Consumptive Use and Water Budget Component* - a water budget model, StateWB, was completed and documented; and applications were performed that include the entire Rio Grande Basin as well as the ground water model (valley floor) area;
- *Spatial System Integration Component* - river call data was obtained and digitized for Division 3; the inclusion of this data into HydroBase was completed late in 2001.

A feasibility study was completed in October, 2001 to determine the users, components, cost and schedule for developing a decision support system for the South Platte Decision Support System. Following are the key results of that study:

- A DSS system is necessary to allow state agencies, water providers and water users to evaluate management decisions in response to increases in population, demand, drought, endangered species issues and reductions in federal water program funding;
- Development of a DSS for the South Platte is feasible; the cost is approximately $15 million and will take approximately six years to complete;
- The feasibility study reflects the needs identified by water users, the CWCB and DWR, that resulted from three public meetings and 71 interviews with the water community; a core advisory group was formed and met twice to guide the project formulation;
- The anticipated funding source is the CWCB's construction fund;
- The SPDSS will include new data collection, enhanced administrative tools, planning models, user involvement and training.

The third year of maintenance was completed on the Colorado River Decision Support System. Key achievements included hardware upgrades, a database refresh, and enhanced product delivery using the Internet and data distribution via compact discs.

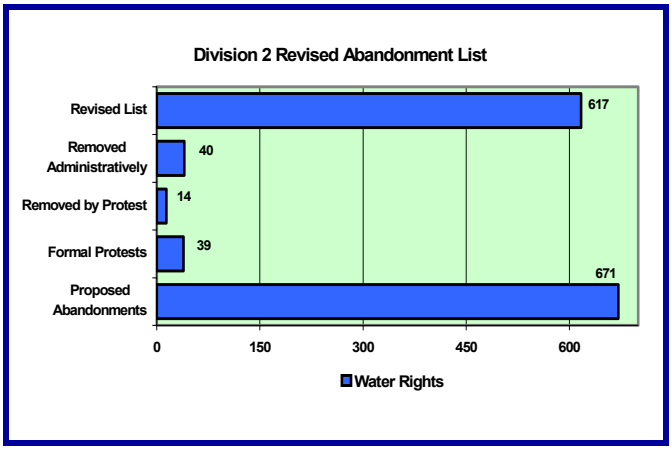
Challenging Year for Division 2 Staff in the Arkansas River Basin

The 2001 season was challenging and eventful. The Division Engineer's office, in cooperation with the Pueblo Winter Water Storage Board of Trustees, administered the Winter Water Storage Program during the winter of 2000-2001. A total of 158,390 acre-feet of water was stored or directly diverted during the 120-day program season. This value compares to 178,579 acre-feet stored in the previous season, and 166,602 acre-feet as an average of the last five years. The remainder of the irrigation year validated the early season prediction of below average streamflow. This condition caused irrigators to draw heavily upon water stored in reservoirs.

One hundred and sixty new water right applications or other filings were made with the Water Court (including 28 complaints filed by the state as ground water enforcement actions). The five-year average of filings is 171 cases. Other significant legal events included:

1. Continue to have a minimal number of referee hearings through more detailed consultation and negotiation process with water right applicants and opposers;
2. Twenty meetings were attended on the on-going negotiations with the City of Aurora/Rocky Ford Ditch Sellers Group concerning changes to the Rocky Ford Ditch Company water rights;
3. Encourage water users to continue to apply to the court and obtain change decrees correcting their previous decrees to the current situations as they may exist.

The Division Engineer placed 671 water rights on the year 2000 Abandonment List on July 1, 2000 — 578 of these were ground water rights and the remaining 93 were various types of surface water rights. As a result from further review and the filing of 39 formal protests to this abandonment list by water users, the Division Engineer removed 14 water rights from this list by the granting of protests, and 40 administratively following further investigation; 25 protests were denied and these rights remain on the list. The Revised Abandonment List containing the remaining 617 water rights was filed with the Water Court on December 31, 2001 and assigned case number 01CW157.



Events in the Rio Grande Basin

The Rio Grande drainage experienced conditions that challenged the staff in their efforts to correctly administer the Rio Grande Compact. The effects of the dry conditions from the year 2000 were more influential than were expected. That, coupled with a dramatic downturn in the forecast mid-season, made it a very difficult year to predict and, therefore, to administer the compact. Both rivers under-delivered the normal compact obligation. The Rio Grande was very close to its obligation. The Conejos was unable to use the amount of their credit due to the change in the forecast. Water was delivered on the basis of the higher forecast long enough into the summer that, even though the river was nearly dry during the remainder of the year, the additional 10,000 acre-feet of credit water that was planned to be used could not be used.

The Rio Grande Headwaters Restoration project feasibility study was completed by Montgomery-Watson, Inc., and the other consultants, and was a job well done. The project will improve riparian habitat and flow conditions in the Rio Grande, evaluate flooding potential, evaluate structures in the river, and stop some of the degradation and accretions in the river that make it difficult to deliver water to the priority water rights and to the compact. The implementation phase of the project is currently under way.

The Rio Grande Decision Support System (RGDSS) development is continuing with most of the work completed. The work to be done is the development of the ground water model. Contractors installed many of the new monitoring wells and conducted pump tests to gather data for the ground water model.

Much of the surface structure and irrigated acreage mapping was completed during 2000, and the data has been incorporated into the GIS system. Rules and regulations for new appropriations from the confined aquifer were originally required to be written by July 1, 2001. Legislation passed in 2001 would delay implementation of rules and regulations until July I, 2003. This is due to the contractors being unable to provide sufficient data as a basis for the rules and the completion of the ground water model.

The Federal legislation authorizing the Great Sand Dunes National Park sailed through Congress in 2000. The Nature Conservancy's purchase in 2001 of the Baca Ranch may remove the threat of exportation of large amounts of water from the Rio Grande basin.

Water Administration Accomplishments in the Gunnison River Basin

The year 2001 was the second year in a row for low spring runoff and very dry conditions. However, a lesson learned was that one can never underestimate the value of a timely rain and the assistance it provides to water users and the water commissioners who administer their water rights. This was a year when rains came just at the right time, enhancing the river flows and averting many river calls.

In the upper Gunnison Basin, the inflow to Blue Mesa Reservoir was 72% of normal for the second straight year. It is unusual that the inflow would be exactly the same, percentage-wise, in two successive years. Both Taylor Park Reservoir and Blue Mesa Reservoir did not fill this year. Maximum reservoir elevations at Taylor Park and Blue Mesa were eight and one-half feet and seventeen and one-half feet below the spillway, respectfully. Recreational uses are impacted when these reservoirs do not fill, both from uses at the reservoir and from the lower flows below the reservoirs for fishing and boating.

Blue Mesa Reservoir

The lower reservoir levels and release rates at Blue Mesa also reduced the ability of Western Area Power Authority (WAPA) to produce hydropower at the three plants in the Curecanti Unit. Rains kept the flows sufficiently high to avoid river calls on both the Tomichi Creek and the East River.

The decentralized well permitting program has continued to benefit the permitting process. Issuing permits at a local level has allowed for timelier processing, typically within two days for exempt applications. Another benefit of decentralization is the knowledge available in dealing with the local basins and ground water issues. In 2001, the division office issued 86% of the 589 permits applied for in the Division. Two hundred and eighty-one water right applications were filed, which was a substantial increase from previous years. This continues to require a large percentage of staff time to provide consultation to the Water Court.

Colorado River Basin Issues

During the winter of 2001, snow pack was in the 80% to 90% range basinwide. A warm and dry spring dropped the snow pack to 78% in May, and became nearly nonexistent by June. Generally, the most reliable runoff forecasts are based on April 1 snowpack; but as the snowpack conditions degraded, actual runoff fell below the forecast. The forecast was 84% of normal at the Colorado River at Dotsero, and 79% of normal near Cameo. With snow accumulation in the Blue River Basin remaining below normal all winter, releases at Green Mountain Reservoir were held near minimum outflow for power generation, yet the storage in Green Mountain remained below the end-of-month targets throughout the winter. With these extreme measures, Green Mountain Reservoir did not achieve a physical fill.

The flow of the Colorado River above Kremmling experienced particularly low flows. Depletions in the Middle Park area of the Upper Colorado River have increased since the extremely dry year of 1977. The Windy Gap Project and Wolford Mountain Reservoir were completed. With the exception of the land inundated by these two projects, and dry-up for augmentation plans, the irrigated land remained virtually the same. Several golf courses have replaced irrigated meadows, extending the irrigation season and, thus, increasing depletions. Numerous small reservoirs and ponds were constructed for recreational or augmentation purposes. Development has increased the domestic and commercial depletions in the area. The Division 5 office received many complaints from ranchers, landowners, and fisherman along the river of conditions not witnessed before. These low flows in the Middle Park area, combined with releases from Wolford Mountain as substitution for releases from Williams Fork to replace depletions from Moffat Tunnel, Roberts Tunnel, and Dillon Reservoir, resulted in flows on the Colorado River between Parshall and Kremmling for the months of July through September to be the most stressed reach of river.

The consolidated Blue River Decrees settled the relative priorities of the rights of the U. S. Bureau of Reclamation, Denver Water, and the City of Colorado Springs, and provided for the terms that allowed depletions upstream of Green Mountain Reservoir prior to the filling of Green Mountain Reservoir. Prior to a paper-fill, transmountain diversions by Denver and Colorado Springs are limited to the amount of storage each has in the Blue and Williams Fork Rivers and is necessary to fill Green Mountain Reservoir. The Secretary of Interior notifies water users of the start of the fill date, the amount needed to fill, whether Green Mountain will fill, and if there is water available for upstream depletion. A substitution year occurs when Green Mountain does not fill and Denver Water opts to use Williams Fork Reservoir in lieu of releasing Dillon Reservoir storage owed to Green Mountain.

Yampa /White River Basin Highlights

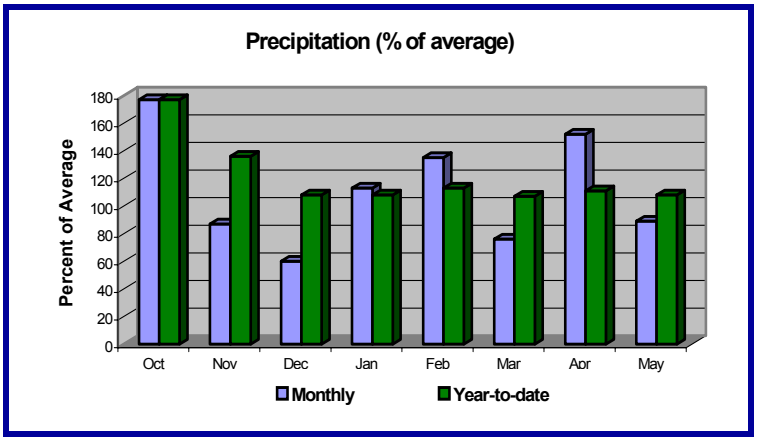
The main issue in Division 6 continues to be the finalization of the Yampa River Basin Management Plan. The plan, which started over two years ago, was originally scheduled for completion in August 2000. That date has again been delayed until the fall of 2002. Public meetings were held in the basin to obtain public comments on the draft plan. The plan will recommend a two-tiered approach to address future depletions. The first level will include 30,000 acre-feet of additional consumptive use, with a second increment to be determined once the first is developed. When finalized, the Management Plan will be submitted to the U.S. Fish and Wildlife Service and will form the basis for their Biological Opinion for the Yampa Basin.

In conjunction with the Yampa River Basin Management Plan, studies are underway to evaluate the enlargement of Elkhead Reservoir near Craig. This reservoir is located on Elkhead Creek, a tributary of the Yampa River, and is approximately 10 miles northeast of Craig. The reservoir currently holds approximately 13,500 acre-feet. The proposed enlargement (approximately 8,000 acre-feet) is part of the implementation plan for the Yampa River basin under the Upper Colorado River Endangered Fish Recovery program.

Two issues of concern arose with regard to water administration. The Little Snake River went under formal administration for the first time since the Upper Colorado River Compact was signed in 1948. Under the compact, water rights on the mainstem of the Little Snake River, above the confluence with Savory Creek and the rights on the tributaries, can continue to divert without regard to the call. Due to the low flow conditions when the river was under administration, only one post-compact water right in Colorado was curtailed. The second issue was on Pot Creek, a small tributary that flows out of Utah into the Green River in Colorado. The runoff is administered under a Memorandum of Understanding between the states of Colorado and Utah. The issue is the administration of storage rights in three reservoirs in Utah that are storing water after the start of the irrigation season, and is required to deliver to downstream water rights. We will continue to discuss this issue with the state of Utah.

Irregular Water Year in the La Plata River Basin

It was a very unusual year in the La Plata drainage, in that the accumulation of snow occurred very close to average during the entire winter period, but a very dry and warm spring soon depleted the snowpack, with most streams peaking in early May. Streams peaked early, but most of the storage reservoirs reached near capacity. A very dry summer ensued with some thunderstorm activity but very little additional runoff was created.



The La Plata Compact was administered as a split river during the summer as index flows diminished to a level at which water could not be delivered down the dry main channel. Major improvements were gained in river measurement due to the cooperative program to install control structures at the two existing river gages, as well as the installation of two new gaging stations.

The Animas-La Plata project moved forward significantly and was funded for construction to begin in 2002. This led to planning and contract negotiations with municipal and industrial customers. The Tribal Consent Decree required adjustments for project design changes; however, general consensus remained in that the tribes and water users, as well as federal and state parties, were still committed to the final settlement.

Negotiations over the Forest Service instream flow claims as reserved rights continued at a slow pace as the technical committee worked on details of the claims. No session was held by the negotiation team as the parties were considering the effects of administrative changes as well as applicable court decisions on the process.

Further work on the river channel restoration at the Rio Blanco was initiated. There are remaining interstate issues and proposals to be acted upon. The Division of Water Resources is working closely with the Colorado Water Conservation Board in addressing these.

The Division Engineer listed 350 water rights for abandonment and partial abandonment during 2000. In 2001, protests were received and over 100 hearings held. Many cases were resolved and water rights listed were adjusted accordingly. Substantial improvements and uses were shown at a great number of structures.

New Policy for Reviewing Substitute Water Supply Plans

The authority to evaluate and issue substitute water supply plans (SWSPs) underwent significant change. During 2001, the Division reviewed and acted upon 153 substitute water supply plans. The reviews and actions were performed in accordance with the historical interpretation and application of Section 37-87-120, C.R.S. It is important to note the amount and depth of engineering and technical analysis required to prevent injury to senior water rights is consistent with the standards applied to pending water court applications.

State Engineer, Hal Simpson, signed Policy 2001-3 on April 17, 2001, that documented the position of the Division of Water Resources in approving SWSPs. The policy was written in response to the repeated requests by water users, consulting engineers, and water attorneys for a formal written document. The policy reflected the statutory intent to provide water administration officials with a flexible and timely mechanism to approve SWSPs that provide necessary water supplies to an existing water user in a water-short situation without injury to existing water rights, or to provide an interim water supply for situations in which a permanent change of use is not appropriate. The State Engineer's Office considers requests for SWSPs and their subsequent operations to be temporary in tenure. Approval of SWSPs is contingent upon maximizing available water resources and is in no manner intended to substitute or conflict with the judicial process in the Water Court system.

The Colorado Supreme Court held that the approval of SWSPs by the State Engineer is limited to certain applications in the decision on Empire Lodge Homeowners' Association v. Anne Moyer and Russell Moyer on December 17, 2001. The Division is presently working with water users throughout the state of Colorado, the General Assembly, and representative water administration officials and legal counsel to construct a body of applicable legislation, law, and policy to implement a mechanism that will provide an interim water supply for situations in which a permanent change of use granted exclusively through water court is not appropriate.

Hydrographic and Satellite Monitoring Activities

The Hydrographic and Satellite Monitoring Branch is responsible for providing leadership and technical management and maintenance of the statewide network of stream gages, stage/discharge relationships, stream flow records, and satellite-linked stream flow monitoring. Significant activities include substantial coordination with USGS and CWCB, conversion of the SMS, completion of the Hydrographic Program review, and the first Colorado Streamgaging Symposium.

The annual training meeting was held at Winter Park in September. Key discussion on the hydrographic program review, budget, CWCB coordination, high data rate transmission transition, and USGS coordination were accomplished. In addition, several guest speakers provided timely information on stream flow measurement techniques, instrumentation, and research.

The Hydrographic and Satellite Monitoring Branch is also responsible for the development and publishing of annual stream flow records in accordance with USGS standards. The stream flow records are published in May of each year for the prior year's stream flow. In May of 2001, a total of 203 stream flow records were published. Substantial effort was invested in 2001 to maintain, repair and replace the equipment used to measure and transmit stream flow measurements.

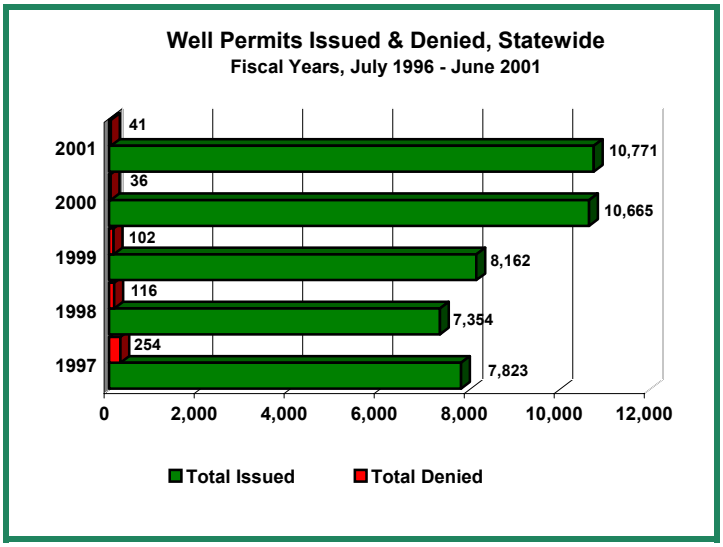
Hydrographer taking water level measurements in Chapman Gulch, Pitkin County.

In May, eighty people drove through a late spring storm to attend the Colorado Streamgaging Symposium in Breckenridge, Colorado, that was initiated by Assistant State Engineer, Jack Byers. The symposium provided education to the attendees on the past and present streamgaging programs in the state. The symposium was co-sponsored by the Colorado Water Resources Research Institute, U.S. Geological Survey, Colorado Water Conservation Board, and the State Engineer's Office. The meeting brought together, perhaps for the first time in Colorado, the diverse people and organizations that depend upon accurate stream flow data. Learning of the breadth of water interests in Colorado that regularly use stream flow data, as well as the ways the data are used, was judged to be highly valuable to a number of the attendees.

Topics discussed included the history of stream flow data collection in Colorado, evolving uses and importance of stream flow information, current and future access to stream flow data, and opportunities for improvement in the coverage and dissemination of information. The last topic was very important for planning improvements to the system into the future. A streamgaging newsletter is scheduled for the spring of 2002 and a second symposium is planned for May of 2003 to continue the progress in stream flow data collection and dissemination to meet the needs of the people of the state.

ADDITIONAL ACCOMPLISHMENTS AND STATISTICS

- In cooperation with the Nebraska Department of Water Resources, the Division of Water Resources established a new gaging site for South Platte River flow across the state line. At this site, flow converged into a single channel and a gage could potentially eliminate the current use of three gages on separate channels upstream.
- Success was achieved regarding the objective of requiring installation of water measurement and control devices as needed to facilitate water administration in the Arkansas River Basin.
- A total of 335 subdivision referrals were received and acted upon by the Division, which is often performed in a timeline that is substantially less than 21 days.
- The ground water evaluation staff acted upon 11,247 new well permit applications. The well permitting staff also continued to process and analyze Statements of Beneficial Use, Notices of Well Completion Reports, and Monitoring-Hole Notices. A comprehensive ground water wells database, well construction, pump installation, abandoned wells, and other statistical information vital to operational and data quality assurance are also maintained.



- The ground water well permitting backlog has been eliminated and the Division is meeting all statutory mandates. Of greater significance, the dedicated well permitting staff is providing excellent public service by processing average well permit applications in less than two weeks.
- In performance of their duties, the Designated Basins staff acted upon 1,132 small-capacity well permits, 196 large-capacity permits, evaluated 44 change applications, and were involved in numerous enforcement activities and hearings. The staff continued to be active participants in Designated Basin ground water management through consultation and participation in Groundwater Management District meetings.
- The Geotechnical Branch reviewed 212 well construction variance requests, 12,000 well completion reports, and 215 geophysical logs.
- The State Engineer's Office participated as a formal party or litigant in only 2.5 percent of all water court cases filed.
- Division I Water Court Judge Jonathan Hayes dismissed the Sportsmen's Ranch Case (96CW14) and awarded costs and fees to the objectors.
- The State Engineer's Office worked in collaboration with Colorado Supreme Court Justice Hobbs and Justice Kourlis, the seven Water Court judges, referees and clerks to modify and update water court application forms and instructions. The principle focus of this effort was to provide water users with the flexibility to provide their legal description in UTM coordinates obtained by hand-held GPS units as an option to the traditional lineal distances from perpendicular section lines.
- The Modeling Branch staff continued efforts to revise and update data to the Hydrologic Institutional Model (HIM) for the Kansas v. Colorado litigation and Arkansas River administration, was heavily involved with the ground water model associated with the application for water rights of Park County Sportsmen's Ranch Case, and actively participating in the development and calibration of a steady state and an average monthly ground water model of the San Luis Valley.
- Support staff for the Board of Examiners are solely responsible for the investigation of complaints that allege well construction or pump installation that violates the provisions of Article 91 of Title 37, C.R.S. During the year, 121 new complaints were investigated, 31 construction and 86 permit violations were reviewed, and 132 complaints were resolved. In addition, the staff prepared two policy statements, processed 212 requests for variance and infiltration gallery plans, reviewed 4,700 completion reports, 3,400 pump installation reports, 600 abandonment reports, and over 3,000 well owner completion notices. The Board licensed a total of 340 contractors, including 12 new contractors, and conducted 19 oral examinations for new licenses.