

Colorado

Stream Lines

QUARTERLY NEWSLETTER OF THE OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

1313 Sherman St. Room 818, Denver, CO 80203 (303) 866-3581

1998, Vol. XII, No. 3

Contention Continues at Annual Republican River Compact Meeting

The 39th Annual Meeting of the Republican River Compact Administration was held in Burlington, Colorado, on June 4, 1998. The meeting began late due to Nebraska officials being delayed due to inclement weather affecting their air travel. The meeting was well attended with water users from all three states in attendance.

Due to the on-going disagreements of the states over the definition of alluvial ground water, the Engineering Committee did not compute consumptive uses and virgin water supplies. It also did not complete other assignments given to the committee at last year's meeting.

Because Kansas filed a motion for leave to file a complaint with the U.S. Supreme Court against Nebraska and Colorado in May, the meeting was more intense than previous meetings. The complaint states that no allegations or relief is being sought against Colorado, but that Colorado is named since it is a signatory to the Compact. The allegations against Nebraska involve post-compact well development in Nebraska and the impact of this

well development on the flows of the Republican River and its tributaries and on Kansas' compact entitlements.

The Commissioners from all three states reported on various water related activities in each state. One common theme was the increase in confined animal feeding operations in each state. Dairy and hog operations are increasing in the states causing local concerns about water quantity, water quality, and odor.

Because of the potential interstate compact litigation, the Compact Administration could not reach agreement on assignments to the Engineering Committee. Next year's meeting was set for June 3, 1999 at a location in Kansas to be determined by the current chairman, David Pope. Hal Simpson, Colorado Commissioner, completed two years as chairman on June 4, 1998.

- Hal D. Simpson, State Engineer -

Visit our website that has hydrographs for selected stations at
<http://www.dnr.state.co.us/water/flow>

Decision Support for Water: CRDSS, now RGDSS

CRDSS, and now RGDSS. The major components of CRDSS (the Colorado River Decision Support System) are now in place; and RGDSS, a similar system for the Rio Grande Basin (San Luis Valley) is now being planned. The data-centered design of CRDSS allows its software components to be transferred easily to the Rio Grande. And the unique aspects of the Rio Grande basin will be added into the DSS system. Then, we expect the DSS system technology to be extended into the remaining basins, ultimately forming a Colorado Water Decision Support System.

The major components developed in CRDSS are:

- a monthly time-step planning model
- a consumptive use model
- water administration tools
- a central unified database
- a consistent graphical user interface
- graphical ("GUI") display, reporting, and graphing tools for easy use
- software that runs on common PC hardware using data accessed via the Internet

The additional components necessary for a DSS for the San Luis Valley are:

- a groundwater model, linked to the surface water model
- additional well test data to allow proper calibration of the groundwater model
- development of "operating rules" which reflect the Rio Grande compact
- a snowpack – runoff model

With CRDSS now in operating mode, DWR's Ray Bennett has been asked to assume the role of RGDSS Project Manager. He will be assisted by Andy Moore of the CWCB staff. Project components have been identified and Statements of Qualifications for these components are being sought from consultants. Work is expected to commence by mid-October, and is planned for completion in 2000 or early 2001.

- Will W. Burt, Deputy State Engineer -

Well Permit Application Backlog

Due to the high volume of well permit applications that we have received over the last few years, we have seen a steady increase in the number of well permit applications that are not evaluated within 45 days. In an effort to eliminate this problem, the Division of Water Resources has implemented a number of activities to address this situation. Some of the major activities implemented are as follows:

1. Reallocation of staff on the Ground Water Information telephone line.
2. Reallocation of staff for walk-ins in the records section.
3. Streamline well permit approval for household-use-only permits.
4. Hired additional temporary people for six months.
5. Assigned additional staff to process applications during peak months.
6. Additional overtime for professional classified employees.

As a result of these actions, we are now processing most applications within the 45-day requirement except for some applications in Designated Basins that require public notice and some applications waiting on approval of substitute water supply plans. Hopefully, a new well permitting system that is currently being developed and will utilize state-of-the-art technology, will allow the Division of Water Resources to process most applications within 21 days in the future.

- Dick Wolfe, Professional Engineer -

Douglas County Proposed Amendments to Master Plan, Subdivision, and Zoning Regulations

The Douglas County Planning Division has recently announced proposed amendments to their rules and regulations for the adoption of water supply standards with the intent of encouraging the continued search for development of renewable resources and implementing water conservation practices. These recommended water supply standards would be used in the review of land use applications and special district proposals.

Douglas County, one of the fastest growing counties in the nation, is located south of the Denver metro area, and is located over the south central portion of the Denver Basin aquifer. The east boundary of the county is generally the area west of Parker and Franktown, bounded on the west by the Pike National Forest, and on the south by the Palmer Divide.

The purpose of the proposed regulations is to ensure the long-term dependability of the water supply for residents residing in the area. The need for these water supply standards stems from the fact that some developments that are situated on the edge of the Denver Basin aquifer are experiencing water supply problems. Those that may be affected by these new regulations include

those proposing to develop land in Douglas County, including requests for building permits, rezonings, special use permits, subdivisions, special districts or rural site plans.

The water supply zones have been separated into four categories. They are referred to as the Pike/Rampart, Margin A, Margin B, and the Central Basin, and are situated in a west to east direction within the County. Each of the zones has a different requirement depending on the proposed type of land use application requested.

On May 21, 1998, Ms. Jennifer Drybread, the Advance Planning Manager for the Douglas County Planning Division, presented the proposed revised guidelines in a briefing for State Engineer Hal Simpson, and other members of the Denver office staff. The State Engineer responded in a letter to Ms. Drybread after the briefing stating, "Your efforts to develop a comprehensive growth and water supply planning document are commendable and appear to be a model for other areas in the state."

- Bill McIntyre, Professional Engineer -

Visit DWR's Redesigned Website

The Colorado Division of Water Resources has always been dedicated to public service and providing the public with pertinent water information. The World Wide Web has given DWR another means to provide this information in a timely manner. Our web site can be found at <http://water.state.co.us/default.htm>. Visitors to our site can access Streamflow data, read about the history of water in Colorado and review our *Streamlines* newsletter. Our redesigned web site includes a frequently asked question area, a "Well

Application Tutorial" that helps our visitors determine which well application form they need to download and a easy way to contact us with comments. In the future, we hope to provide on-line access to water data, an educational forum and information geared to special interest groups. We invite you to visit our site and send us your comments.

- Deb Bell, Information Technology Section -

Memorandum of Understanding between the Colorado Division of Water Resources, the Colorado Division of Wildlife, and the Colorado Water Quality Control Division

The Division of Water Resources entered into an Interim Memorandum of Understanding (MOU) with the Division of Wildlife and Water Quality Control Division in April 1997. The purpose of the MOU was to improve the communication and coordination between the three agencies, water users and other interested parties. The interim MOU was a very valuable tool in improving our communication and coordination as well as avoiding unnecessary adverse impacts to the Aquatic ecosystem.

The agencies reviewed the effectiveness of the MOU during March 1998. The Interim MOU was revised into a final document. The final MOU provides a framework to improve the communication, coordination and cooperation between the participating agencies regarding unusual, irregular or extraordinary water management activities. The sharing of water management information is to provide opportunities for the development of mutually beneficial, voluntary water management options to avoid or minimize, if possible, the negative impacts to fisheries and aquatic ecosystems or to protect the health and welfare of the public. The agencies agree to identify concerns and impacts associated with water management activities within the State of Colorado.

Through the identification of potential problems and timely sharing of water management information, the DWR, DOW, and WQCD agree to take reasonable action to identify options and opportunities to avoid or minimize, if possible, unnecessary impacts to fisheries and aquatic ecosystems due to water management practices. The agencies agree to be proactive in the education of dam owners, water right holders, and the general public regarding water management and possible concerns regarding negative impacts that may result and the possible actions that may be undertaken to avoid or minimize them.

The MOU does not, nor is it intended to, restrict or expand agency authorities, supersede, abrogate or impair lawful storage and legal uses of water rights in accordance with water court decrees and administrative rules and regulations. The agencies recognize the owners of water rights are entitled to certain lawful water management practices, the MOU is not intended, nor does it impose, any restrictions, perceived or actual on the lawful use of water rights.

The agency Division Directors and/or their representatives meet annually, by March 1 of each year, to review the effectiveness and progress of activities identified in the MOU. Several successful coordination events occurred during 1997 and are discussed herein.

Clear Creek Reservoir

Clear Creek Reservoir, located on the Arkansas River upstream from Buena Vista was drained for repairs in August 1997. The City of Pueblo made the DOW aware of their plans to evacuate the reservoir in June, and prepared a plan which described their approach to releasing water for all of the MOU agencies to review. The plan was well conceived and called for a gradual drawdown of the reservoir over a six-week period. A full-time caretaker at the reservoir monitored the drawdown on a daily basis, and watched the turbidity level very closely.

Pueblo also worked very closely with DOW and Outdoor Parks and Recreation to insure that the timing of the release would benefit the rafting industry, and not harm the spawning season for trout. Pueblo went to great lengths to be cooperative, and to hear all concerns; furthermore, they did it all this in the true spirit of cooperation and the desire to do well.

Rio Grande Reservoir

Rio Grande Reservoir located in Mineral County was drained in July and August of 1997. Steve Vandiver wrote the DOW a letter in late July to provide formal notice to DOW & the WQCD of the drawdown; Steve also proposed that it might be possible to exchange some transmountain water to try to provide for a pool which would reduce the potential impacts of such a drawdown. The DOW and the irrigation were unable to come to agreement on such a plan, therefore the drawdown occurred without the benefit of a higher water level which may have reduced the amount of sediment release during the drawdown.

While a solution was not found for this particular event, the intent of the MOU was carried out in that the agencies were notified and a solution was sought, if not successfully.

Two Buttes Reservoir

Two Buttes Reservoir in Baca County was lowered in late August of 1997 due to concerns about dam safety. The reservoir needed to release about 1,000 acre feet from a bottom release structure in order to bring the reservoir to within its safe capacity. The primary concern was that the gates had not been opened in six years, and there was potential for a release of sediment to Two Buttes Creek and some local ponds, both of which have significant wildlife values.

The DOW through the SE Region worked out a plan that allowed the release to occur utilizing existing ditch systems to catch the release and its sediment load.

Strontia Springs Reservoir

Strontia Springs Reservoir located in Douglas and Jefferson Counties released sediment several times in the past year. The Buffalo Creek fire has caused a high level of sediment to move to the reservoir in the past two years. The Denver Water Board needed to release sediment in order to retain the viability of the emergency release structures of the dam.

The DWB has been working on a plan for the release of sediments, and the impacts of such releases to the South Platte River. A recent meeting was called under the auspices of the MOU to educate the MOU agencies of DWB's efforts. DWB's efforts are extensive in finding both short and long-term solutions to the problem. A good side benefit of the meeting was to bring together the Chatfield Basin Association with the DWB to consider the releases effects on water quality standards for phosphorus in Chatfield Reservoir.

Shoshone Dam

The diversion/bypass operations at Shoshone Dam were modified by Public Service Company (PSC) to enhance or better protect the aquatic ecosystem and/or angling capability of the Colorado River. PSC agreed to continue partial releases of water in excess of the power plant capacity through the lower gate. In addition, during the required maintenance projects that are low-flow dependent, the pool of water will be drained from the upper outlet gates first then ramped down to the lower outlet gate as necessary. Additional coordination on these activities will continue.

Lower Urad

The City of Golden was planning to flush poor quality water out of the reservoir and subsequently refill with clean water during the runoff season. The City, DWR and WQCD developed an extensive water quality monitoring program to protect the downstream ecosystem during the flushing operation.

Overall, the MOU process is working well and is helping to find solutions to releases from dams and water management activities that may adversely impact water quality and wildlife.

Agency Contact: Jack G. Byers, Assistant State Engineer

House Bill 98-1151

New laws have been passed that affect the powers of the *Colorado Ground Water Commission* (Commission), the *State Engineer*, and the *local ground water management districts* (districts) in managing ground water within *Designated Ground Water Basins* located on the eastern plains of Colorado. The bill was signed by the Governor on June 1, 1998, and takes effect at 12:01 a.m. on August 5, 1998. The major highlights of the act are summarized below:

- Establishes a withdrawal limit of 5 acre-feet for new small capacity ground water wells (wells exempt from injury consideration). The act provides that the districts may adopt rules to change the five acre-feet limit. The act also provides that any owner of a small capacity well that is being used in a confined animal-feeding operation may apply by December 31, 1999, to obtain a new well permit to the extent of its beneficial use in that operation prior to January 1, 1996.
- Clarifies the provisions for new withdrawals from the Dawson, Denver, Arapahoe, and Laramie-Fox Hills Aquifers within the designated basins, and allows for determination of rights to such water without the necessity of constructing a well (similar to outside designated basins). Eliminates the requirement for final permits for these wells since the appropriations are based on land ownership and not on beneficial use of the water.
- Provides for issuance of new well permits pursuant to a replacement plan (similar to an augmentation plan outside basins), defines a "replacement plan", and establishes standards for processing these replacement plans.
- Grants ground water management districts the authority to regulate large capacity wells with **conditional** or final permits; and to enforce violation of use limits on small capacity wells. Eliminates the requirement for the districts to give well owners individual notice of adoption of control regulations, but still requires publication in newspapers. Provides that the district must conduct the hearing within 180 days.
- Simplifies payment of publication fees for final permits and new applications, and requires payment of a \$60 filing fee for extension of large capacity well permits, thus establishing a fee consistent to that charged for outside basins.
- Clarifies the Commission's authority to grant temporary approval of changes in water rights without publication, provided such approvals are in accordance with rules adopted by the Commission.
- Modifies the place and timing for appeals of hearing officer decisions and clarifies other hearing provisions. Provides that a hearing must be conducted within 180 days after the filing of a request for such hearing.
- Increases commission member's per diem rate from \$25 to \$50 a day (the members meet four times a year).

If you have questions concerning this act please contact Bill Fronczak or Purushottam Dass of the Colorado Division of Water Resources at (303) 866-3581.

Ground Water Commission Reappointments

Jon B. Brownell was reappointed in March, 1998, to serve his third term on the Commission and represents the agricultural water users of the San Luis Valley area. Mr. Brownell started his first term in February, 1993, for one year to complete the term of a member who resigned in November, 1991. He is a farmer and businessman from Hooper, Colorado, and serves on several committees and boards in the San Luis Valley.

Anne J. Castle was reappointed in March, 1998, to serve her second term on the Commission and represents the municipal and industrial users of the state. Ms. Castle is a water attorney for the law firm of Holland Hart, is the Chair of the Board for the Legal Aid Society of Metro Denver, serves on the Board of Directors for the Legal Aid Foundation, and participates on various other boards and volunteer activities.

Retirements

Al Eckermann called it "quitting time" after 22 years of service with the Colorado Division of Water Resources. In his last assignment, he was serving as a team leader responsible for the ground water work within the Denver Basin. Al maintained a strong commitment to customer service and faced some difficult issues in ground water administration. He will certainly be missed.

Frank Kipple began his career with the Colorado Division of Water Resources on January 5, 1986, and assumed the duties of the Lead Hydrographer in the Division 2 office in Pueblo on February, 1990. The results of Frank's leadership of the Division 2 Hydrographic Branch is exemplified in the quality of work product which has been produced since he assumed this responsibility. Frank's decision to resign this position was accepted with reluctance, but best wishes are extended to him in his new endeavors.

George Ridenour assumed the duties of the Water Commissioner in Water Districts 14 and 15 in the Division 2 office in Pueblo in July, 1976. Prior to this appointment, George had worked with the Department of Institutions as Swine Herdsman, the Department of Corrections as Correctional Farm Officer, and the Department of Agriculture as Meat Inspector. His service with the State of Colorado totals 36 years. George's tenure as the Water Commissioner in the Pueblo area has been met with respect from the water users and we wish George a happy and fulfilling retirement.

Eric Wagner retired after 25 years of service to the water users of Division 6. Eric came to work for the Division of Water Resources in 1973 as a Water Commissioner on the Yampa and Elk Rivers. In 1977, he moved to Walden, Colorado, to take over the administration of the North Platte drainage. Eric has been a tremendous asset to the Division as well as the water users in North Park. Besides his normal administrative duties, Eric has also been responsible for monitoring Colorado's compliance with the U.S. Supreme Court ruling that affects the North Platte River. Eric will be sorely missed, not only for his skill in handling difficult situations, but also for his insights into the sometimes-contentious issues of North Park.

Calendar Of Events

- August 14** Colorado Ground Water Commission Meeting, Inn at Silver Creek, Silvercreek, Colorado. Contact Marta Ahrens, DWR, at (303) 866-3581, for more information.
- Sept 21-22** Colorado Water Conservation Board, Board Meeting; La Junta, Colorado. Contact Susan Maul, CWCB, at (303) 866-3441, for more information.
- October 6** Board of Examiners of Water Well Construction and Pump Installation Contractors Meeting, 1313 Sherman Street, Room 615, Denver, Colorado. Contact Gina Antonio, DWR, at (303) 866-3581, for more information.

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Colorado Division of Water Resources
Department of Natural Resources
1313 Sherman Street - Room 818
Denver, Colorado 80203

Phone (303) 866-3581
FAX (303) 866-3589
www.dnr.state.co.us/water

Jim Lochhead, DNR Executive Director
Hal D. Simpson, State Engineer
Marta Ahrens, Editor

STREAM LINES is published by the Colorado Division of Water Resources on a quarterly basis. Subscriptions are available for \$10 per year to cover the cost of printing and mailing