

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

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## ***U.S. Supreme Court Overrules Colorado's Exceptions***

*by Hal D. Simpson, State Engineer*

On January 20, 1998, the U.S. Supreme Court entered an order overruling Colorado's exceptions without prejudice to Colorado's right to renew those exceptions at the conclusion of the remedy phase of the litigation in Kansas v. Colorado. This action was not surprising in light of the position taken by the United States which had recommended to the Court the action it took. These exceptions involved two of the recommendations by Special Master Littleworth. The first exception was to the recommendation that damages to Kansas could include those to individual water users. The second was that pre-judgment interest was not precluded.

The current situation with the litigation is that depletions to usable stateline flow have been determined by the Court to be 420,070 acre-feet for the period 1950-1994. Colorado has updated the Kansas H-I model for 1995 and 1996 and is preparing an expert report at the time of this writing. A trial has been set for seven days beginning May 11, 1998, in Pasadena before Special Master Littleworth to quantify the depletion for 1995 and 1996. We expect these depletions to be around 10,000 acre-feet.

On March 6, 1998, the Special Master held a status conference in the Byron White Courthouse in Denver. Kansas said it was not prepared to submit a report on damages until November 15, 1998.

The Special Master requested that Colorado submit by September 15, 1998 a report on the feasibility of repaying a portion of the damages in water rather than money. Colorado is beginning to develop the report and will obtain input from the Arkansas River Basin water users.

The Special Master gave Kansas until November 15, 1998 to submit its report on damages. He further directed Kansas to clearly distinguish between damages to the State of Kansas and to individual water users so that he can modify his recommendation in the event the Court disagrees with his resolution on the 11<sup>th</sup> Amendment to the U.S. Constitution issue raised by Colorado.

Colorado is finalizing contracts with two expert economists so that an analysis of the economic impacts of the depletions to usable stateline flow in Kansas can begin.

Visit the Colorado Division of Water Resources web site at  
<http://water.state.co.us/strmline.htm>

# **South Platte River and Denver Basin Technical Report (SB 98-74)**

*by Jack Byers, Assistant State Engineer*

A Special Water Committee, consisting of nine legislators, was established as a result of SB 96-74 to investigate Denver Basin groundwater management and South Platte River Basin issues. To assist in the Special Water Committee's consideration of these water policy issues, the State Engineer and the Director of the Colorado Water Conservation Board (CWCB) were directed to administer a technical study encompassing fourteen specific areas of concern.

The Special Water Committee approved a scope of work for the technical study in September 1996 and directed the State Engineer's Office and the CWCB to proceed with the study. The study utilized the latest technical methodologies and data from previous existing studies. During its preparation, the study was subjected to peer review by qualified hydrologists, geologists, engineers, and all interested members of the general public.

The draft report from the State Engineer and the Director of CWCB was provided to the Special Water Committee and to the public for comment in October 1997. Public comment was received and peer review meetings were held to review the results of the study and to consider recommendations. Considerable discussion focused on the groundwater model and the results of the model. The Special Water Committee met in December 1997 to discuss the draft report and consider comments on the report. The State Engineer's Office and Hydrosphere Resource Consultants provided an overview of the report and demonstrated the South Platte Illustrative Tool. The State Engineer recommended, and the Special Water

Committee concurred, that additional time was necessary to address the concerns expressed by the peer review groups and others, to refine, if necessary, the Denver Basin Groundwater Model.

The South Platte River and Denver Basin Technical Report will be provided to the Special Water Committee on April 6, 1998. The report recommends that the State Engineer's Office and the CWCB proceed with the development of a South Platte River Decision Support System as soon as the resources become available, but not later than 1999. The State Engineer and the CWCB are proceeding with cooperative studies and investigations to further refine and improve the Denver Basin Groundwater Model.

A particularly useful computer-based interactive tool was developed as part of the SB-74 study to illustrate the interrelationships between population, water demands, water supply options and resulting effects on surface water and groundwater resources within the South Platte basin of Colorado. The tool allows the user to select a future water supply scenario based on population growth and water supply options for each of three regions within the South Platte basin. The output from the tool illustrates the effects of a specified scenario with respect to surface water flows; trans-basin diversions, Denver Basin groundwater use and conversion of in-basin irrigated agriculture. Effects on surface water flows are shown at five gage locations on the South Platte River.

The tool can be accessed on the Internet at the following URL:  
<http://www.dnr.state.co.us/cwcb/secb/sb74stat.htm>

## ***Rio Grande Compact Meeting Held in Alamosa***

*by Hal D. Simpson, State Engineer*

The 59<sup>th</sup> Annual meeting of the Rio Grande Compact Commission was held in Alamosa on March 26, 1998, at Adams State College. The Commission consists of a member from the states of Colorado, New Mexico, and Texas. The Chairman (nonvoting) is appointed by the President of the United States and currently is Ken Salazar of Denver. The State Engineers of Colorado and New Mexico are the commissioners for their respective states and the Texas commissioner is appointed by the Governor.

Reports were presented by each Commissioner, the Engineer Advisors, and four federal agencies; Bureau of Reclamation, International Boundary and Water Commission, Corps of Engineers, and Fish and Wildlife Service.

There are a number of significant water resource management issues being addressed in the Rio Grande basin by state and Federal agencies. Some of these include improved water operations by federal reservoirs to address multiple uses including storage and release for authorized project uses, improved delivery of water for compact purposes, water for endangered species habitat (Silvery Minnow), water for changing demands such as municipal use, water quality needs, and Mexican Treaty obligations.

The Rio Grande Compact Commission approved five resolutions that addressed the following:

1. Support for the continued operation of the Closed Basin Project.
2. Support for the BOR to obtain funds to remediate bacterial biofouling of some Closed Basin Project wells.
3. Protesting the unilateral development of an umbrella contract by the Bureau of Reclamation related to the conversion of Rio Grande Project water to municipal use.
4. Requesting the Bureau of Reclamation for more information on each project in the basin with respect to budgets, budget requests, reprogramming of funds, and transfer of ownership of project facilities.
5. Support for funding a request by the Corp of Engineers to replace the San Marcial railroad bridge across the Rio Grande.

The Commission approved the report of the Engineer Advisors which reflected the accounting of actual deliveries and release of usable project water for 1997. Due to a disagreement on spill of project storage in 1996, the states of Texas and New Mexico disagree with Colorado on the proper accounting of credits and debits for 1997. Colorado's accounting indicates that Colorado has an accrued credit of 700 acre-feet on December 31, 1997, and New Mexico has an accrued credit of 43,300 acre-feet.

The Closed Basin Project was used to the maximum amount possible in 1997. Due to bacterial biofouling of some wells, the project was only able to pump 38,997 acre-feet rather than the design amount of 68,000 acre-feet. However, the 38,997 acre-feet allowed Colorado to meet its Compact delivery obligation and not go into debt by 38,297 acre-feet for the same level of curtailment of use in Colorado. The curtailment of water users during the peak irrigation season was as high as 25 percent on the Conejos River and 28 percent on the Rio Grande. Once again, the value of the Closed Basin Project to Colorado is very evident.

The Bureau of Reclamation is considering a proposal to study various methods to remediate the wells impacted by bacterial biofouling. Some wells will be treated chemically and some with near total loss of production will be replaced, but with a different design to prevent the introduction of oxygen into the aquifer. The results of the study over the next 2 to 3 years should indicate the most cost effective methods to bring production back to the design volume.

## ***Change - The Way Of Our Future***

*by Orlyn Bell, Division Engineer*

Change is the current driving force in the Colorado River basin water use scramble. Land in many areas is rapidly being converted from traditional agricultural use to those uses associated with growth, recreation and the environment. The latest crop to be rooting and thriving in the soil of Division 5 is condominiums and second/trophy homes. This means a multiplicity of water right owners and rights now exist. Historically, there were large working ranches with single owners of several rights. Add to this the increased need for water to satisfy environmental concerns, and it is easy to see that as these trends continue the need for cooperation is imperative. Sharing education and information among all residents of the area and employees of the Division of Water Resources must occur.

An example regarding growth, in Summit County, the area above Dillon Reservoir is now home to approximately fifteen hundred wells, most of them in-house use only permits. Twenty years ago this same area housed less than 100 wells. Three hundred sixty-five water rights, mostly for irrigation and mining, existed in 1970. Today, there are 1,136 water rights, including 43 minimum streamflow rights with nearly all the mining rights abandoned and the irrigation rights converted to other uses.

With the respect to environmental concerns, the pressure to provide additional water flow for endangered fish has resulted in proposed adjustments in Grand Valley irrigation users' techniques. Eight million dollars in check structures to be installed in one of the irrigation canals can conserve up to thirty thousand-acre feet of water annually. This water may then be available for release out of Green Mountain Reservoir when needed for the fish.

The Blue, Fraser, Eagle, and Roaring Fork River Valleys are transitioning from ranches to small tracts on wells. The next step will be housing densities that displace wells with central water systems. Are the mechanisms we have in place prepared to handle this change? Will they best define and protect the resource, ownership transitions, and water use?

Change is not made without inconvenience but it seems to be the way of our future and we at the Division 5 office plan to continue to keep pace with it. As Isaac Asimov said, "It is change, continuing change, inevitable change, that is the dominant factor in society today. No sensible decision can be made any longer without taking into account not only the world as it is but the world as it will be."

## ***Vision for Success - Water Resources Develops New Mission***

*by Joseph (Jody) Grantham*

Over the past year, and as part of the overall strategic planning and path of the organization, the Division of Water Resources has been on an intense program to redevelop a mission for the organization that captures the spirit of our dedicated employees as they provide service to the public and the state. The program involved a series of ten meetings with our employees as they described to each other and the management of the organization the things they value most about their jobs, the

public they serve, the resource and each other. As a result of this process, the Division was able to develop a new mission, created by the employees themselves, which refocuses the organization in a new direction, one which the agency believes will serve our employees and the public well as we move toward the 21<sup>st</sup> century.

This document, known as the **Colorado Division of Water Resources' Vision for Success**, is reprinted

below. In the coming months, the organization will begin to set specific goals for accomplishing this mission and the State Engineer, Hal Simpson, will be actively visiting with water users and the public, seeking input on our long-range strategies. We look forward to those comments and suggestions and

invite our readers to provide their thoughts. Please direct all inquiries to: Joseph Grantham, Colorado Division of Water Resources, 1313 Sherman St., Room 818, Denver, CO 80203, or via email at: [joseph.grantham@state.co.us](mailto:joseph.grantham@state.co.us)

## *The Colorado Division of Water Resources*

### *Vision for Success*

**The Colorado Division of Water Resources** strives to be a leader in the water community of Colorado and the western United States. This is accomplished by focusing on the following areas: *people, water and stewardship*. **People**, because we recognize that the business of water involves our employees and the public. **Water**, because the administration, safety and use of the State of Colorado's water resources is something we are committed to and care deeply about. **Stewardship**, because we understand and accept our obligation to the taxpayers and ourselves, in using and protecting the resources in the most effective manner possible.

Our **Mission** is:

- To provide competent and dependable distribution of water in accordance with statutes, decrees and interstate compacts.
- To ensure public safety through safe dams and properly permitted and constructed water wells.
- To maintain and provide accurate and timely information concerning water.
- To promote stewardship of all human, fiscal and natural resources.
- To serve the public through the generation of creative solutions to problems.
- To help the public understand complex water issues.
- To promote stability in the use of the state's limited water resources.
- To apply modern technology to its greatest advantage.

These **Principle** statements will guide our actions:

- Treating each other and the public with dignity, respect, honesty and fairness.
- Assuming personal responsibility for individual and organizational actions.
- Fostering continuous improvement, innovative thought, learning and shared leadership.
- Promoting an open and honest communication environment that builds trust, respect and loyalty among ourselves and the diverse community in which we live and work.
- Recognizing our employees and the water community for the professional, competent services they provide.

## ***Wells - Are They a Dependable Water Supply?***

*by Jack Byers, Assistant State Engineer*

The Division of Water Resources and the Colorado Water Well Contractors Association, with the assistance of several co-sponsors, have teamed up to provide six one-day seminars on groundwater and wells. The seminars started in March of 1997 and have been held in Durango, Montrose, Steamboat Springs, Glenwood Springs, and Sterling, with the final one to be held in Evergreen on April 30. The seminars included presentations on basic information regarding groundwater resources, geology, well construction, groundwater statutes and rules, well permitting, and groundwater administration. Generally, there were presentations on water quality

and county regulations regarding residential development and wastewater treatment.

The meetings have been informal and questions and discussion from the attendees were encouraged. The meetings have attracted a broad range of people including well construction contractors, pump installers, realtors, attorneys, water resource professionals, county planners, and private citizens. Additional information on the seminars can be obtained by contacting Jack Byers at the Division of Water Resources.

## ***Summary of 1998 Replacement Plans***

*by Dennis Bagenstos, Division 2 Office*

Based on the experience gained from implementing replacement plans in 1996 and 1997 pursuant to the Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin, the Division 2 Engineer prepared a letter of expectations for the preparation of applications for replacement plans for the plan year of April 1, 1998 through March 31, 1999. This letter was provided to all well users and entities with approved plans in late January, 1998. Prospective applicants for new replacement plans were provided a copy of this letter if they indicated an interest in submitting an application for approval of a replacement plan.

Fourteen plans were approved in accordance with the 1996 Use Rules as shown in the attached table. The State Engineer will likely approve about 36 other plans under the provisions of Section 37-80-120, C.R.S., which cover wells that are pumping under the provisions of Rules 3, 4 and 5 of the 1996 Use Rules.

The projected pumping for each approved Arkansas River replacement plan, the projected out-of-priority

depletions to senior surface water rights in Colorado and to usable Stateline flows from post-compact well pumping are shown in the table. Each plan was required to show that it had sufficient replacement water to replace projected out-of-priority depletions to senior surface water rights in Colorado and projected depletions to usable Stateline flows during the 1998 plan year prior to approval. The specific sources of replacement water for each plan are described in the approval letters for each plan. These replacement sources generally included return flows from transmountain project deliveries, municipal transmountain waters, and "dried-up" surface water rights used for augmentation.

Even though John Martin Reservoir was spilling as of April 1, 1998, the ARCA approved a resolution which will allow deferred delivery of water for Kansas thereby enabling Colorado well users to take advantage of the offset account in 1998.

Year-end summaries of actual operations under 1997 replacement plans are expected to be available by late May, 1998.

## Approved Arkansas River Replacement Plans

Applicant	Total Number Of Wells	Number Of Wells Estimated To Pump	Total Estimated Pumping (AF)	Estimated Rule 3 Area Irrigation Pumping (AF)	Pre-Compact Pumping Allowance (AF)	Estimated Stream Depletion Replacements (AF)
Arkansas Ground Water Users	464	375	24,825	21,535	3,958	9,187
Chico Basin						
Colorado State Land Board	16	16	19	0	0	1.23
Colorado Water Protective and Development Association	790	676	48,200	33,127	4,833	17,112
Energy Fuels Coal	1	1	35	0	0	2.80
FNMC Water Group	31	30	1,105	1,105	271	288
Fort Lyon						
Well Users Association	69	53	4,750	4,750	437	936
Fountain Valley School	1	1	74	0	0	67.50
K5 Farms/ Sundance Investments	6	1	108	0	0	73
Lower Arkansas						
Water Management Association	584	517	103,811	82,644	1,445	19,934
McComber, Jack & Sylvia	2	2	63	63	39	16
Mount Massive Golf Course	1	1	27	0	0	22.80
Pueblo, City of	3	2	92	0	0	83.10
Upper Arkansas						
Water Conservancy District	15	12	201	0	0	71.2
Vineland Well and Pump						
Users Association	4	3	241	241	27	68
<b>TOTALS</b>	1,987	1,690	183,551	143,468	11,010	47,862.63

## **National Forest Watershed Issues**

*by Eric Wagner, Water Commissioner, Water District No. 47*

During the 1980s, a proposal surfaced to use forest management as a tool to increase flows in the Colorado River. But enthusiasm for a water yield enhancement program wilted after Denver newspapers published articles suggesting Colorado's forests might be clearcut to satisfy California's thirst. Pictures of unsightly experimental clearcuts at the Fraser Experimental Forest accompanied the articles. However, the concept was not forgotten and interest in restoring water yield from national forests has been rekindled. A group based in North Park, the Coalition for Sustainable Resources, recently notified the federal government of its intentions to sue the U. S. Forest Service for failure to implement forest management practices that would provide water for downstream endangered species and their habitat.

There is a long history of public concern and debate about the condition of federal forested watersheds. A century ago, many western forests suffered from unregulated logging to provide charcoal for smelters, mine props, lumber, house logs, domestic fuel, fence rails, and railroad ties. Uncontrolled fires had ravaged other forests. Water spilling off the denuded and fire-glazed watersheds created damaging floods in the spring and after storms, followed by periods of extremely low flows later in the season. Those flow patterns interfered with agriculture, commerce, and prosperity.

Fear arose that forest lands might soon disappear, leaving the country with a shortage of both timber and healthy watersheds. Congress responded to the crisis by passing the Organic Administration Act of 1897, which outlined the primary purposes of the national forests as (1) securing favorable conditions of water flows, and (2) furnishing a continuous supply of timber for the use and necessities of the citizens of the United States.

The Organic Act provided the Forest Service with marching orders until the Multiple-Use Sustained-Yield Act was passed in 1960. A common misconception is that the Multiple-Use Act replaced

the Organic Act, but it instead authorizes the Forest Service to manage for range, recreation, wildlife, fish, and other purposes in addition to, but not in place of, management for the primary timber and water responsibilities for which the national forest system was established.

The USFS took its water and timber mission seriously in its early years. The primary watershed protection action consisted of an aggressive forest fire suppression campaign, and the results were dramatic. The Poudre, for example, suffered from five floods in the 20,000 cfs range between 1860 and 1904, but has experienced no floods greater than 11,000 cfs during the 92-year period since the Poudre watershed was added to the national forest system. During this period, the USFS also conducted a modest timber harvest program to provide wood products for the home market.

In addition, experimental forests were established at various locations around the country as research sites. Initial research was directed at best management practices for timber and water, and was expanded to include multiple uses after 1960. Early watershed research in Colorado began in 1910 near Wagon Wheel Gap, and at the Fraser Experimental Forest near Berthoud Pass in 1937.

The Forest Service research has demonstrated that trees have a direct influence over water yield. Like other plants, trees extract water from the soil and release it to the atmosphere through transpiration. Also, considerable amounts of rain and snow stick to the foliage and evaporate or sublimate back to the atmosphere without reaching the ground. Mature trees have higher transpiration rates than younger trees, and canopies that are uniform and dense cause greater amounts of precipitation to be intercepted and lost to the atmosphere. It is not surprising then, that a thick stand of mature timber combines a high transpiration rate with a high interception loss and results in the lowest water yield of any forest cover.



The studies at Fraser have shown that carefully designed timber harvesting can increase water yield by up to 40% above that of an unmanaged old-growth forest, without increasing the risk of damaging floods, degrading water quality, or causing environmental damage. Because young trees have a low transpiration rate and less interception loss, it takes 70 to 80 years before water yield declines to pre-harvest levels. Continued forest management activities can maintain conditions of favorable water yield. The level and pattern of harvest suggested by the Fraser research reduces the risk of catastrophic fire by maintaining fuel loads at a manageable level, and also results in healthy and vigorous stands more likely to withstand disease and insect attacks.

The USFS has not implemented watershed practices developed at Fraser on a large scale. Timber harvest has been less than the rate of growth since the national forests were established, allowing the age of the forest (and the canopy density) to steadily increase, which in turn causes water yield to steadily decrease. Nationally, the average volume of standing timber per acre is 30% greater today than in 1952. Forest inventory data and old photographs show that our forests are now older and denser than ever before in history.

Colorado's national forests have not escaped the trend of increasing age and density. According to the Fraser research, about one fourth of a sub-alpine forest managed for water yield should consist of stands in the seedling/sapling stage that are less than 30 years old, while not more than one fourth should consist of mature stands greater than 90 years old. The Routt, which is probably typical of Colorado's National Forests, reports that only 9% of its stands are in the seedling/sapling stage, while 60% are classed as mature—the forest stage that yields the least water. Timber harvesting has decreased in proportion to the increasing number of appeals and lawsuits filed by environmental groups, and the Routt now proposes to harvest less than 10% of the amount needed to maintain the forest in a state of favorable water yield.

Reduced water yield is an early symptom of forests that are losing diversity due to aging stands. Later

symptoms include increasing mortality from insects, disease, and blowdowns, in addition to the increasing frequency of catastrophic fires. Federal and state forestry officials have warned that a 2,500-square-mile swath from north of Fort Collins to south of Colorado Springs is primed with fuel and ready for a California-style conflagration. High fuel loads increase the likelihood of severe watershed damage of the type experienced after the 1996 Buffalo Creek fire southwest of Denver.

The potential for increasing water yield from our national forests is enormous. The Forest Service's own forest plans for the Medicine Bow, Arapaho/Roosevelt, and Routt Forests, for example, state that water yield could be increased by almost 400,000 acre feet a year through vegetative and snow management techniques without degrading water quality.

At the same time Forest Service timber management policy is causing streamflow from our national forests to decline, another federal agency (the Fish and Wildlife Service) is demanding higher downstream flows in several rivers on behalf of endangered species. Water users are often targets caught in the crossfire. Some members of the water community are questioning the Forest Service's management practices as they relate to providing water for the downstream endangered species. They feel that the Forest Service is obligated to maintain the watershed in a condition of favorable flow, if not by the Organic Act, then certainly by the Endangered Species Act.

It is clear from Forest Service research that a watershed maintained in a condition of favorable flow will have enough forest cover to prevent floods, yet will have openings to catch snow and promote runoff. At the same time, the forest must not be allowed to become so old or dense as to invite catastrophic stand replacement and subsequent watershed damage. The Organic Act directs the Forest Service to maintain those favorable conditions by removing excess fuel as wood products, and many feel that approach is as sensible and practical today as it was a century ago.

# External Customer Survey Results for 1997

by Joseph (Jody) Grantham

For the second consecutive year, the Division of Water Resources has completed a survey of its external customers to examine strengths and weaknesses of our organization, areas of future need, customer service and overall effectiveness. This data is very useful to the Division as it focuses on improving its service and addressing the needs of our customers. The survey is sent to water conservancy districts, water attorneys, engineering consultant firms and Colorado Water Congress members.

The overall results for the 1997 survey still indicate that water administration should be the number one priority for the Division, consistent with 1996 results. Water Court activities of the Division moved up from the number 5 priority to number 2 and data management moved down in the rankings to number 3. Ground water well permitting, dam safety, communication and environmental issues were the remaining issues of import for the division in priority, according to those surveyed.

Specific group responses indicated that communication was perceived as of more relative importance to the water conservancy districts, engineer/consultant firms and the Water Congress than in the past. An area of future focus for the Division will be to provide more opportunities for our customers to discuss matters of import to them as a result of this information.

The overall effectiveness of the Division ranked higher than in 1996, up from 6.43 to 7.31 (on a scale of 1 to 10 with 1 being the lowest). The rankings for both years are provided in Table 1.

Overall customer service was also examined in the survey and it was viewed as higher than the effectiveness of the Division. Consistent with the survey in 1996, the water attorneys provided the division with lower marks than other groups surveyed. However, customer service improved significantly in

their minds, as well as the minds of the other groups surveyed. Results are provided in Table 2 (1 being the lowest and 10 being the highest).

**Table 1, Overall effectiveness, Colorado Division of Water Resources**

*How would you rate the overall effectiveness of the Division?*

	1996	1997
WCD	6.05	7.42
Attorneys	6.00	6.78
Engineers	6.08	6.60
CWC	7.27	8.08
Unknown respondents		7.67
Total	6.43	7.31

**Table 2, Overall customer service, Division of Water Resources**

*How would you rate the overall customer service you received in your last contact with the Division of Water Resources?*

	1996	1997
WCD	6.05	7.42
Attorneys	6.00	6.78
Engineers	6.08	6.60
CWC	7.27	8.08
Unknown respondents		7.67
Total	6.43	7.31

## Calendar Of Events

- May 7-8 Costilla Creek Compact Meeting, Garcia, Colorado. Contact Steve Vandiver, DWR, Division 3, at 719.589.6683, for more information.
- May 11-12 Colorado Water Conservation Board, Board Meeting; Grand Junction, Colorado. Contact Susan Maul, CWCB, at 303.866.3441, for more information.
- May 15 Colorado Ground Water Commission Meeting, 1313 Sherman Street, Room 318, Denver, Colorado. Contact Marta Ahrens, DWR, at 303.866-3581, for more information.
- June 2 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.
- June 4 Republican River Compact Meeting, Burlington Country Club, Burlington, Colorado. Contact Marta Ahrens, DWR, at 303.866.3581, for more information.
- July 13-14 Colorado Water Conservation Board, Board Meeting; Telluride, Colorado. Contact Susan Maul, CWCB, at 303.866.3441, for more information.
- July 17 Colorado License Exam, Trinidad Junior College, Alamosa, Colorado. Contact Carol Brooks, CWWCA, at 303.759.1756, for more information.
- July 18 Colorado Water Well Contractors Association Mid-Year Conference Member Meeting and Golf Tournament, Alamosa, Colorado. Contact Carol Brooks, CWWCA, at 303.759.1756, for more information.

## *Retirement*

**James Clark** retired on March 30, 1998, after 31 years of employment with the Division of Water Resources. Mr. Clark was an Assistant Division Engineer for the South Platte in Greeley where he worked as the supervisor of the Hydrography group.

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