

# Division 1 Annual Report



Cheesman Reservoir Spilling (photo by Louis Flink)

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## CURRENT WATER YEAR

### Accomplishments

Division 1 continues to look for opportunities to respond to the ever increasing challenges created by growth and resultant conflict over water use. As an indication of the increasing workload, we have put together a series of graphs showing increases in the number of individual daily diversion records, the number of call changes per year on the mainstem of the South Platte, the number of water rights in Division 1, and the number of augmentation plans in Division 1. See pages 49-50 for the series of graphs. Staff has accommodated this incredible workload growth without significant additional staff by working very hard, being very efficient, and using technology whenever possible.

As the reader can see from later discussion in the Innovative Administration Processes Section of this report, our office has implemented paperless reporting; has provided direction in development of a new well administration and enforcement data base for Division 1 by the Denver IT section; has worked with Colorado State University to develop a web site to report well augmentation data; and has worked with the Colorado Decision Support System to develop Water Atlases for Water Districts.

As described in the Augmentation Plan Strategies and Associated Administration & Accounting Issues section, our office must now administer over 300 active recharge sites many of which have been constructed in the past five years. We have developed and are enforcing common minimum standards for measurement and recording of this data. In this regard, all new flow measurement recording devices must be continuous and provide a data logger output in water discharge, as our staff does not have the time to break down the massive number of additional paper water stage charts if the new structures used this method of recording.

Our staff was very active in new water court applications to obtain augmentation plans by well user groups. Of note, the Division actively

participated in the Central Colorado Water Conservancy District's Groundwater Management Subdistrict plan decreed in 2005 to assure that there was no injury and that the plan could be administered. This is by far the largest irrigation well augmentation plan ever decreed in Division 1 with approximately 1,000 wells. Though this and several other smaller augmentation plans are approved, there are still thousands of wells operating under Substitute Water Supply Plans (SWSP) as the Court works through all the augmentation plan applications during the next several years. We have spent considerable time working with the Denver office to assure that these SWSP's are accurate and reviewed timely.

Our focus associated with administration continues to be compliance and thus we emphasize providing information to users upon request. We have sought to improve communication with users by the extensive use of e-mail and the Internet to share call and other information concerning administration. We have also sought input from users when appropriate. In this regard, we sent a letter to all users seeking input concerning non-irrigation season administration practices in October 2005. Final decisions concerning possible changes in administration will be made in 2006.

Our office continues administrative efforts to verify the existence, location and status of wells for those users who have not been able to obtain a SWSP or augmentation plan and determine if those wells have been operated. Staff has actively sought to curtail wells that have been pumped without replacement water in accordance with statute. Though not a pleasant aspect of our job, this enforcement against violators assures that senior water right users are not injured by out-of-priority well pumping.

The Colorado Decision Support System assisted us by supporting our installation of a new gage at Atwood in District 64. This provided a much-needed new site for flow information on the lower end of the river. As is discussed in the Hydrography section, our office continues to add other gages and gage improvements to allow for better administration within the division.



Though seldom mentioned unless there is a problem, our dam safety group continued an active inspection program to assure all the jurisdictional reservoirs in Division 1 were safe. A fairly new activity of the branch is development of a database for profiling dams based upon risk associated with the design and operation of the dam.

For the future of water resources, our staff has been actively involved as resources in development of the South Platte Decision Support System, the Surface Water Supply Initiative, and efforts associated with the Endangered Species Recovery Program. These programs are discussed in more detail elsewhere in this report. We also look forward to continued support of the Intrastate Compact Committee efforts associated with 2005 House Bill 1177.

In summary, we feel proud that we have been able to meet the challenges set before our office and we are confident we will continue to meet additional challenges in the future. Our efforts will be greatly aided if we are able to secure the 4.5 additional full time staff we have requested from the legislature for well administration activities on the South Platte mainstem.

### Water Supply Conditions

**W**ater Year 2005 turned out to be a good year for municipal, industrial and irrigation users along the South Platte. This was due in part to better reservoir carryover than in recent years, a fairly wet spring, and timely precipitation events during the summer. The following discussion walks more closely through the water year.

With the start of the new water year and end of the irrigation season, water not needed for domestic purposes was stored during November. While storage conditions were significantly better than in November 2003, there was still a call for storage water during November 2004 through out the basin except near Nebraska. By the end of the November 2004, storage in key irrigation reservoirs below Kersey was 30,000 acre-feet higher than at the end of November the previous year. This

boded well for the potential to fill the reservoirs the spring of 2005, even without a very wet spring. In the 2003 and 2004, filling had been particularly dependent on a wet spring.

In general, the overall municipal storage supply was also better than in 2004. Significant municipal reservoirs including Dillon, Spinney, Cheesman, and Standley were near full. This was also an encouraging sign for next season. In the northern part of the basin, the Colorado Big Thompson system storage stood slightly below 2003 and below the historical average.

Reservoir storage continued in December, January and February along the mainstem and tributaries. Calls for storage continued through out the basin except below the Prewitt inlet on the lower end of the Platte. Calls for storage also existed on tributaries, the normal situation during the winter. Storage levels remained at a much better place than the last few years. By the end of February, we were fairly confident that the large in basin reservoirs would fill in the early spring of 2005. Of some concern, a very early direct call for irrigation was possible if conditions remained dry. This would curtail storage prior to all of these reservoirs filling. As in all years, spring precipitation was important to crop start-up, allowing users to keep reservoir supplies rather than having to release them for irrigation purposes.

Storage and municipal use continued as the main uses in the month of March. Toward the end of the month, there were limited diversions for irrigation, primarily for vegetables. While it was not extremely wet in March, conditions remained fairly stable throughout the month. By the end of the March 2005, all of the plains reservoirs had filled except Empire. We expected Empire to fill the first few days in April.

Initially, April started out a little warm and dry, but quickly turned cool and wet along the Front Range with these conditions eventually extending out further east on the plains the last week of the month. These conditions contributed to a stable to slightly increased snowpack and the ability to allow extended periods of diversion by fairly junior recharge rights on the plains. The wet conditions also allowed most of the major plains reservoirs to



remain full and refill any water lost to seepage and evaporation.

May started with a junior 1977 recharge call on the South Platte. Calls on the South Platte continued to be for refill storage rights or recharge until May 19<sup>th</sup> because of rainstorm events and snow melt runoff due to warm weather. High surface flows and moderately wet conditions in May significantly helped irrigators dependent on reservoirs, as they did not have to use reservoir supplies to "irrigate up" their crops. This boded well for at least a reasonably adequate supply year for most irrigation users.

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

As expected, direct irrigation calls on the river began toward the end of June. Except in the very highest flow years, there is always a direct call that occurs by about the first of July. Unlike June, July was dry and very hot. However, because of the wet June conditions, most reservoirs were full or near full going into the month. Reservoir supplies, plus good return flow conditions created by the wet June provided adequate supplies for users within the basin. Calls along the mainstem and tributaries were normal or slightly less senior than normal in July. Even with significant reservoir use for irrigation, reservoir levels remained much higher than they had at the end of July in several years. With this, we did not anticipate any major supply shortages for the 2005 water year for senior water rights.

A fairly large storm the first part of August allowed calls to become more junior over the entire South Platte River basin. This allowed the owners of junior direct flow rights the opportunity to take water, reducing demand on

irrigation reservoirs in the basin. Because of the wet conditions in June and storms like the one at the beginning of August, water supply conditions for users in the basin for 2005 were very good.

September remained fairly dry through out the basin, but river, reservoir and well supplies were adequate to meet irrigation needs during the month. Likewise, direct flow and reservoir supplies also remained at or above average for municipal suppliers. As irrigation dropped off during the month, the river flow at Kersey climbed.

With basin wide precipitation in the first half of October, supplies were adequate for all irrigation and municipal users on the South Platte and tributaries as the irrigation season wound down. Because of the wet conditions, there was also sufficient water to begin refilling reservoir rights and sufficient water to allow limited recharge. There were even a few days of free river along the whole length of the South Platte below Chatfield reservoir, an unusual situation in October the last several years.

The storage that occurred in October will be helpful in filling South Platte mainstem reservoirs in 2006. Overall, the storage at the end of October 2005 was higher along the South Platte than in the previous few years. On the tributaries, storage conditions were excellent compared to the previous few years. Thus, the initial outlook for 2006 was much better at the end of October than it has been in a few years.

### **Innovative Administration Processes**

**N**umerous recharge and augmentation plans have been developed in the last several years. Several hundred new recharge sites have been constructed in the section of the river below Kersey and more are being built every month. Because of the water users need to capture, exchange, and re-divert excess accretions from the recharge projects, the administration of these processes is rapidly being pushed from a monthly basis to daily. The associated data needs required to operate the number of recharge sites and their associated accretions on a daily basis is driving



the development of both the technology being used to measure and report the diversions and the implementation of new cooperative associations. While 2005 saw the initiation of this development, we expect 2006 will see the beginning of the implementation and will, therefore, report more fully on the actual progress at that time.

A key aspect of administration has always been communication; however, the explosion of irrigation based augmentation plans and recharge projects has significantly increased the amount of communication required and the timeliness of that communication. In response to that need, the division implemented a paperless reporting process with the creation of [Div1Accounting@state.co.us](mailto:Div1Accounting@state.co.us). In addition, the summary accounting for many of the large irrigation plans is also available on line through a cooperative effort with Colorado State University (SPMAP).

In cooperation with the Colorado Water Conservation Board, the Colorado Decision Support System (CDSS) has finished its survey of structures and water rights required to develop a diversion model of the system. An innovative idea prompted by the water commissioners during the associated interview process was the development of a water rights administration "Atlas" to capture and display the information in a form that was readily accessible in the field. The "Water Atlas" has proved to be a very functional and well-used tool.

The Augmentation Plan Enforcement (APE) Hydrobase module was developed to assist the division in tracking well augmentation plan membership, field inspection data and enforcement status. It has proven an invaluable tool in the administration of wells and further demonstrates the necessity of a strong Information Technology support staff.

## Dam Safety

The dam safety branch in Greeley is staffed with three engineers to perform periodic dam inspections, and receives inspection support in the upper reaches of the Platte basin from another field engineer that is

formally assigned to the Division 2 office. In calendar 2005, the continuing vacancy in the Dam Safety Branch Chief position required adjustments to staff assignments to maintain inspection presence in the Division. To allow time to inspect dams that had been formally assigned to the vacant chief position, it was necessary to forego the periodic inspection of some dams in the Division. Selection of dams that would not be inspected were to some extent based upon the application of risk profiling, which is being developed for use in Colorado. Despite the increased workload, the dam safety engineers performed 224 periodic dam safety inspections, and continued to participate with design review and construction inspection activities. In addition to the periodic inspections, dam safety personnel performed 28 construction inspections, and made 52 site visits in support of dam safety activities.

An activity of the branch is development of a database for profiling dams based upon risk associated with the design and operation of the dam. This concept was originally developed as an inventory tool for the US Bureau of Reclamation. Greg Hammer was selected as one of the team members to recommend modifications to the USBR tool, and develop a system for use by the Colorado dam safety branch. This activity has finally progressed to implementation, and the various personnel are now developing the database that will be evaluated for development of future policy.

With the completion of the hydrologic review of the spillways for Class 1 and Class 2 dams, staff is now in the process of working toward correcting spillway deficiencies. Due dates have arrived for completion of improvements for the more seriously inadequate dams. The more seriously deficient spillways have been corrected, or are in the process of being enlarged. This activity is ongoing as several other spillways are progressing through the design review process.

Significant construction projects completed include the new Sienna Dam in Westminster. Several new dam projects were under construction during 2005, including the Reuter-Hess reservoir in Parker, Colorado, which will ultimately impound approximately 70,000 AF.





Reuter-Hess Reservoir Construction in Parker

## Hydrography

### *Operations*

**H**ydrographic operations in Division One are the most extensive of any water division in the state. With 6 FTE on our staff, our hydrographers operate 159 satellite data gages, publish 74 stream flow records, and support the administration of 3 interstate compacts. We maintain cooperative gaging arrangements with the cities of Denver, Aurora, Colorado Springs and Englewood; as well as agreements with the USBR, the Army COE, Northern Colorado WCD, and the Colorado Division of Wildlife. Cooperator contributions to the satellite monitoring cash fund in Division One amount to more than \$20,000.

In preparation for the retirements of George Sievers and Merlin Friedrichsen, Hydrographers Lee Cunning and Russell Stroud took operational responsibility for most of George and Merlin's gages. We also provided cross training for a number of non-hydrographic DWR employees who may help operate some gages, and/or apply for hydro positions: Clayton Kimmi (Groundwater), Mark Simpson and Bob Erosky and Jack Davis (Deputy Water Commissioners).

Unfortunately, our hydro trucks have been ending their careers even faster than our staff. This has occasioned much scrambling and vehicle trading which we hope will be resolved with Fleet Management's 2006 replacements.

### *Gage Work*

Funding for improvements to our gaging system comes from the CWCB and from Cooperator User Fees. These funds are managed statewide by our Chief Hydrographer Tom Ley. The CWCB also participates in specific projects and through the SPDSS effort. A number of gage projects proceeded this year.

A new gage was built on the South Platte River at Atwood. This gage is located in the middle of many key diversion points in District 64, and provides valuable information. Another new gage was established at St. Vrain River near Hygiene in District 5. This gage assists the commissioner in passing transfer water downstream. The Atwood gage was fully funded through CWCB (SPDSS) and had all new equipment. The Hygiene gage used our equipment previously installed in the Hansen Feeder Canal below Carter Lake and funds from the statewide hydrographic program.

New satellite telemetry for Guanella Reservoir inflow, outflow, and stage was purchased by the City of Golden per administrative order. The hydrographic branch installed and took over operation of this equipment. Satellite Monitoring was also installed on Prewitt Reservoir inlet, and 3 outlet points to assist tracking delivered water in District 1.

Gage refurbishment projects proceeded at South Platte River at Henderson (new inlets) and Bear Creek at Morrison (extension of concrete control). Statewide funds also allowed us to build bank-operated cableways at Bear Creek at Morrison and St. Vrain Creek at Lyons. After many years of poor water supply, we look forward to the opportunity to test these cableways!

### *Satellite Monitoring*

Upgrading our satellite telemetry is another area where we have received continuing support from CWCB through our statewide program. In Division One, we are about 79% complete with upgrading to new (Hourly Reporting) equipment for the state-owned and the USBR-owned sites. However, few



upgrades have occurred for gages where the equipment is owned by the USACOE, Aurora, and Colorado Springs. When these key gages are included, the percentage of gages on hourly reporting in Division One is 61%.

### *Special Activities*

We reached an agreement with the USBR concerning how to handle discrepancies in flow balances in the CBT system. The state provided a new rating on Olympus Tunnel. The USBR built a new measurement bridge on Adams Tunnel so that better measurement conditions exist for further study of that flume's operation.

Flume inspection work resulted in complete reinstallation of poorly designed measurement devices on the Farmers Independent Ditch (by Central Water Conservancy District) and the Greeley No. 3 Ditch (By the City of Greeley and others). A design agreement was also reached on a new stilling basin for the flume below the Wray Fish Hatchery (CDOW). A presentation was made for contractors in the Sterling area by Lead Hydro Bob Cooper. Many photos of poorly installed flumes were shown and discussed. We want contractors to get the idea that we are serious about having measurement devices that work right.

Hydrographer Russell Stroud programmed many of the new Sutron data loggers being installed for the emerging SWSP's. Russell also set up discharge spreadsheets for the downloaded data and worked with Lee Cuning to develop new spreadsheet tools that facilitate this process.

Greeley Hydrographers gratefully acknowledge the assistance of David Hutchens as electronic technician for the Satellite Monitoring System. David drives everywhere in Division One when he has a working vehicle!

### *The Future*

We are going bump around for a while trying to operate gages and serve water commissioners at the level provided by Merlin Friedrichsen and George Sievers. We are going to badly miss the services of these two men. Their work will be

the model that our new hydrographers will work toward.

As new faces appear in our hydrographic program, we are also seeing newer technology in water measurement. Acoustic Doppler Current Profiler instruments are being introduced to replace traditional current meters and also as primary measurement devices to replace flumes and weirs. Specially engineered ramp flumes (aka " Long-throated flumes") are increasingly installed on diversions in place of the old standard Parshall flumes. New SCADA systems are being installed on many ditches. These systems frequently employ calibrated gates for measuring flows by-passed under SWSP's.

Our satellite telemetry is also fast becoming less than the state of the art. Cell phone telemetry currently being installed by Northern Colorado WCD costs less than half what satellite equipment costs. Cell phone telemetry is PC-based, is entirely under local control, and operates at about \$10/month per site in phone charges.

All of this brings to mind the ancient Chinese curse: "May you live in interesting times."



Inspecting Control Work at Bear Cr. At Morrison





New Gage Installation at South Platte River at Atwood



Poorly Installed Flume (Dist 23). Photo shown at Contractor Training in Sterling

### Community Involvement

**D**ivision One personnel continue to attend and make presentations at Conservancy District meetings and Ditch Company meetings as well as meetings of water user, realtor, and homeowner groups. Division staff members have also done well administration presentations at several public meetings.

Division personnel continue to be actively involved in the South Platte Lower River Group.

This involvement includes both the Endangered Species Recovery Plan efforts for the South Platte and efforts to improve the efficiency of information gathering related to water diversions and well augmentation plans. Specifically, this effort has involved working on public acceptance of improving the means of gathering and processing data using electronic data gathering devices that can easily download this information directly to a laptop computer or PDA as well as investigating transmitting the electronically gathered data via radio to a centralized location.

For the sixth consecutive year, the Greeley and Denver staffs coordinated shifts at the Division of Water Resources booth at the Greeley Farm Show in late January. This booth provides an excellent opportunity to distribute information and answer questions in an informal public setting. While there are always a few individuals with general complaints about water administration or specific problems, the overall public response to the booth remains positive.

## ONGOING PROJECTS

### South Platte Decision Support System

The purpose of the CDSS water resources management system is to assist water users and managers to make timely, informed decisions regarding historic and future use of Colorado's water.

In the South Platte basin, the entire year was again focused on the collection of data by consultants. In this effort, Division 1 staff provided support and information concerning various ditch systems and water rights. Our office did significant work updating straight line diagrams for use in the project and explaining and updating information in our water data base, Hydrobase.

On the groundwater side, analysis of the data was completed and is available for viewing and downloading at the CDSS website. CDM, the groundwater contractor, is in the final phase of designing a data centered modeling approach. The idea of a data centered approach will make the updating and implementation of a



groundwater model, in any basin, more efficient and maintainable by the State in the future.

Groundwater modeling will be continued in 2006 for both the Denver Basin bedrock aquifers and the South Platte alluvium. The Denver Basin bedrock modeling will be done in cooperation with the USGS, with the USGS being the lead agency. The South Platte alluvial model will be developed by CDM, and will encompass the alluvial systems of the mainstem of the South Platte, and the alluvial aquifers overlying the Denver Basin. This will be a multi-year effort.

## ONGOING ISSUES OR OPERATIONS

### Augmentation Plans

#### Augmentation Plan Strategies and Associated Administration & Accounting Issues

A number of large augmentation plans were decreed in 2005 covering approximately 2000 wells. While the water court process continues to place a huge demand on personnel resources, the legal components of the plans have been more or less established. The primary focus of the division now is the implementation of the plans by developing the necessary monitoring, field inspection and reporting procedures.

The significant features of the plans include a heavy reliance on recharge projects and changed senior water rights with many plans using augmentation wells as an emergency backup supply of replacement water. Procedural controls have been incorporated into the plans in an effort to make the plans reliable and self-regulating.

There are approximately 750 decreed recharge sites in the section of the river below Kersey, many of which have been constructed in the past several years. Most of the sites rely on new diversion rights through existing senior ditches, however some sites also use recharge wells located in close proximity to the river. Recharge wells within 100 feet of the active

streambed are referred to by the division as "headgate wells" and may, in the opinion of the Division Engineer, be operated just like a ditch headgate; any time water is available in priority to the well, the well may be used to make a diversion with no lagged depletions. Some parties in the augmentation plan cases, however, are requiring plans to demonstrate whether or not this true through computer modeling or field testing. The other significant advantage of the headgate well is the ability to use the wells to divert deliveries of fully consumable water from upstream locations and, more often, to operate an exchange of excess recharge accretions from locations downstream from the well.

The recharge projects divert water under their new, junior water right to ponds located at varying distances from the river in an effort to provide both near term and long term accretion credits in the river. Provided the ditch is not also diverting water for senior uses, many of the plans are also allowed to claim recharge credit for the seepage losses from the ditch. The collection and management of diversion data for 750 sites in order to verify the recharge credits will be an exhaustive process and will require the addition of several new staff and significant investments of time and material.

Changed senior rights are also being used as a source of augmentation. The changed water may either be delivered to recharge ponds located on or near the location the water was historically used or may be delivered to the ditch headgate and "bypassed". Delivering the water to the location of historic use makes accounting for historic losses and return flows more straightforward as all the changed water that makes it to the recharge site may be credited as input to the site. Changed water that is bypassed, must account for the historic ditch loss and return flows by making an accounting debit at the location of historic use in the associated augmentation plan model.

Augmentation wells are typically located a significant distance from the river so that the depletions from pumping the well do not occur until well into the future while the discharge from the well is conveyed directly to the river for more or less instantaneous credit. Because the



operation of the well is essentially drawing against anticipated future excess recharge accretions, the plans have built in limitations on how much debt can be incurred by the wells.

Procedural developments that have been included in the plans include the annual submission of a several year projection that demonstrates current reserves and very conservative estimates of ongoing credits are able to offset the projected depletions. The projection may be updated throughout the irrigation season replacing the conservative, drought based operational assumptions with actual operational data. The plans are required, however, to curtail pumping to the degree necessary such that the projection at all times shows no injury associated with the operation of the wells.

Another procedural tool adopted with the encouragement of the Division Engineer is the procedure by which wells may be added to or removed from the plan. The plans are required to replace all depletions associated with a well while it was a member of the augmentation plan; the well may not be removed from the plan until such time as the plan or well owner satisfies the court that no injury will occur with the deletion of the well from the plan. Similarly, the plan must cover all ongoing depletions from wells added to the plan that are not otherwise covered regardless of when the depletions were incurred.

## **Front Range Metropolitan Area Water Supply Development**

### *Statewide Water Supply Initiative (SWSI)*

In response to projected future population growth (a 65% increase by the year 2030) and the recent drought (2002 was the driest year in recorded history), the Colorado Water Conservation Board (CWCB) recognized the importance of understanding and preparing for long-term water needs throughout the state. With the approval of the 2003 General Assembly, CWCB commissioned the Statewide Water Supply Initiative (SWSI). This 18-month study was conducted to determine, basin-by-basin, existing water supplies and existing and projected demands through the year 2030, as

well as explore a range of potential options to meet that demand. The information gleaned from SWSI will assist local communities and water suppliers as they work to better manage and more efficiently use Colorado's surface and groundwater resources.

The second phase of SWSI started on July 1, 2005 with the purpose to further analyze, evaluate and develop deeper consensus in four key areas. To accomplish this, Technical Roundtables (TRTs) were formed to continue discussions with participants from multiple basins and interest groups in a facilitated public meeting forum and to conduct technical work around the following four key areas: 1) Water Efficiency (Agricultural and Municipal & Industrial), 2) Alternative Agricultural Transfers to Permanent Dry-Up, 3) Prioritize and Quantify Recreation and Environment Needs, and 4) Addressing the 20% Municipal & Industrial Gap, Agricultural Shortages, and Environmental and Recreational Needs Including Development of Alternatives.

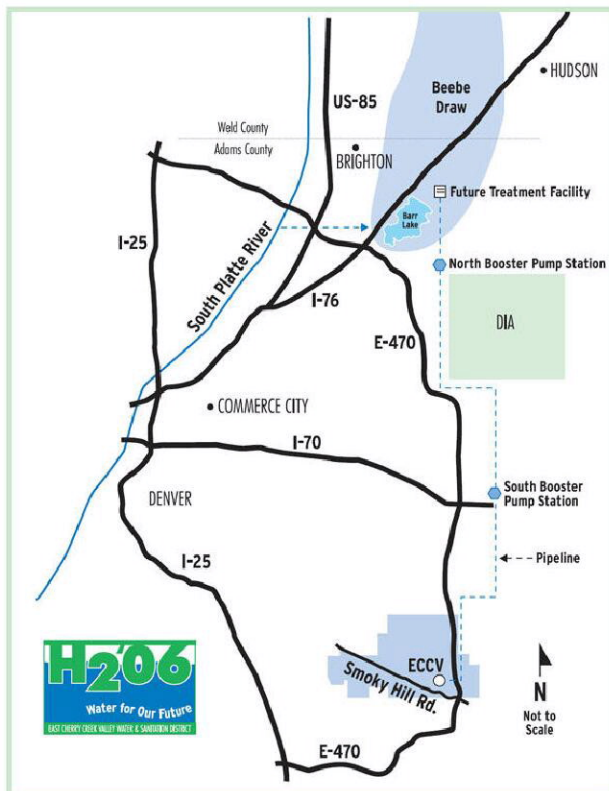
### *South Metro Water Supply Authority*

Following completion of the South Metro Water Supply Study, the South Metro Water Supply Authority (SMWSA) was formed. Over the last year, the SMWSA has pursued regional water projects in renewable water and reuse supply costing some \$180 million. Through its participation in the storage reallocation of Chatfield Reservoir study, the group has committed to increasing the amount of municipal storage by several thousand acre feet. Working with Denver Water and the Colorado River Water Conservation District, the SMWSA is also pursuing a conjunctive use alternative that would reduce the draw on the aquifer system by an estimated 1 million acre-feet and provide an annual average of 19,000 acre-feet of renewable water yield to the South Metro area by combining the use of deep ground water conjunctively with surface supplies from the South Platte and Blue River. SMWSA is also purchasing capacity in the East Cherry Creek Valley (ECCV) Northern Pipeline.



### East Cherry Creek Valley Northern Project

In December 2003, the East Cherry Creek Valley Water and Sanitation District (ECCV) announced an agreement to buy South Platte River water rights from United Water & Sanitation District and Farmers Reservoir and Irrigation Company (FRICO). The ECCV Northern Project will supply renewable water to the southeast metro communities that currently rely on non-renewable ground water. The initial phase of the project will bring 3,000 acre-feet of water per year to ECCV. The project consists of a water-treatment facility, the ECCV Northern Pipeline and two pump stations (see project map below). Water will be taken from the South Platte River near the Adams-Weld County border, and injected into Beebe Draw, a shallow aquifer system near Barr Lake. Water treated at a future facility located just northeast of Barr Lake will be piped to ECCV's tanks, located on the eastern edge of the district near Smoky Hill Road and E-470. The overall cost of the Northern Pipeline is estimated at \$67 million. ECCV plans to have the water available for use in the summer of 2006.



### Chatfield Storage Reallocation Study

The Chatfield storage reallocation feasibility study started a few years ago includes analysis of existing and three alternative operations of Chatfield Reservoir. The three alternatives are: 1) a raise to 5434 feet, providing 2900 acre-feet of storage, 2) a raise to 5437 feet, providing 7700 acre-feet of storage, and 3) a raise to 5444 feet providing 20,600 acre-feet of storage. The end product will be a Feasibility Report (FR), including an Environmental Impact Statement (EIS), U.S. Fish and Wildlife Coordination Act Report, archeological assessment, public notice, and exhibits and supporting appendixes for the study. Based on this end product, the US Army Corps of Engineers (USACE) will determine if it should reallocate some flood control storage capacity in Chatfield Reservoir and, if so, how much.

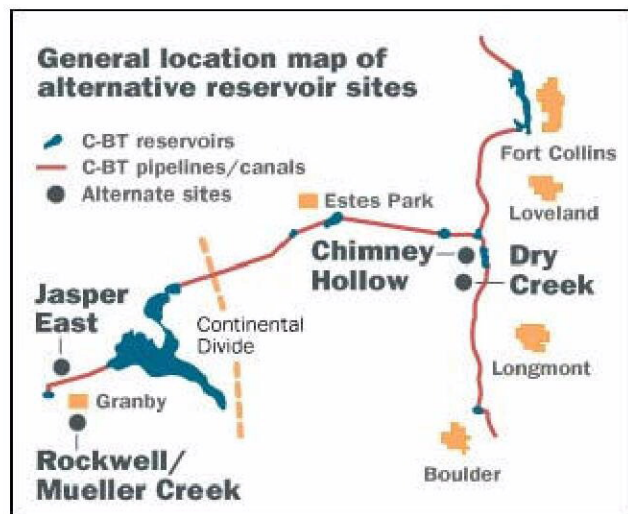


All of the scoping meetings have now been completed along with a Water Supply Operation Plan. Analysis and modeling of the operation plan for each of the three alternatives listed above is under way with two of the alternatives already completed. Work on the FR/EIS draft has also begun and is expected to be released for public comment at the end of 2006. The final FR/EIS is currently scheduled for release in July of 2007 and a final decision from the USACE is currently scheduled for October 2007.



### *Windy Gap Firming Project (WGFP)*

In 2003, Northern Colorado Water Conservancy District (NCWCD) completed the WGFP Alternative Plan Formulation Report, which recommended seven alternative plans for more detailed study and modeling. Each of these plans requires a physical connection of WGFP facilities to C-BT Project facilities, which in turn requires permission from the U.S. Bureau of Reclamation and compliance with the National Environmental Policy Act (NEPA). Over the last year, the Bureau of Reclamation reevaluated the seven original alternatives as well as those identified by the public during the scoping phase of the project. This resulted in a WGFP Alternatives Analysis Report completed in September of 2005, which describes four alternatives (pictured below) that will be evaluated in detail in an Environmental Impact Statement (EIS) report required by NEPA.



NCWCD's preferred alternative is a 90,000 acre-foot reservoir just west of Carter Lake named Chimney Hollow. A draft EIS is currently scheduled for distribution in the first half of 2006. Approximately 30 days after release, the Bureau of Reclamation will hold public meetings to take comments on the document, which they will consider in preparing the final EIS report. After a second public comment period following the distribution of the final EIS, the Bureau of Reclamation will make their final decision.

### *Northern Integrated Supply Project (NISP)*

Northern Colorado Water Conservancy District (NCWCD) in conjunction with northern Front Range municipalities and water districts created the Northern Integrated Supply Project (NISP) to evaluate ways of increasing the quantity and reliability of their water supplies in order to help meet future projected demand. The goal of this regional project is to provide 15 towns and communities in Larimer, Weld and Boulder Counties with up to 40,000 acre-feet annually of new reliable municipal water supply to help meet a portion of their near and longer term needs.

Phase II of the project was completed in February of 2004 with a report documenting the analysis of a wide range of alternatives and identification of those alternatives for which permitting through NEPA will be initiated. From over 200 alternatives, the preferred alternative was found to be a combination of Glade Reservoir and the South Platte Water Conservation Project. This alternative will use a Poudre River water right to divert and store water in the proposed Glade Reservoir (with a capacity slightly larger than Horsetooth Reservoir) located about a mile north of the junction of US Highway 287 and CO Highway 14, northwest of Fort Collins. Construction of Glade Reservoir requires the realignment of Highway 287. The South Platte Water Conservation Project will pump winter and spring flows from an existing structure on the South Platte River into the proposed Galeton Reservoir located five miles northeast of Galeton.

Phase III began in the Fall of 2004 as the federally mandated environmental review process, which is being led by the United States Army Corps of Engineers (USACE). A public meeting was held by the USACE in March of 2005 to gather public input on the relocation of Highway 287 alternatives. A NISP Environmental Impact Statement (EIS) Scoping Report was also completed in March of 2005 documenting the results of the public scoping phase of the EIS process.



## Republican River Compact

The one constant in the Republican River basin since the Final Settlement Stipulation in Kansas v. Nebraska and Colorado in 2003 has been change. Last year we reported on the creation of the Republican River Water Conservation District to provide a local body to assist and cooperate with the State to assure compliance with the Compact. The District has vigorously embraced its role of working toward Compact compliance by:

- Hiring Stan Murphy as the General Manager and Monica Newton as the Administrative Assistant for both the District and its Water Activity Enterprise;
- Adopting water use fees (\$5.50 per irrigated acre for post-compact groundwater diversions; \$4.40 per acre-foot for post-compact municipal and commercial diversions; and \$5.10 per acre-foot for post-compact surface water storage evaporation);
- Pursuing retirement of irrigated acres through Federal cooperative programs such as the Environmental Quality Improvement Program (EQIP) and the Conservation Reserve Enhancement Program (CREP);
- Permanently retired 3,227 acres from irrigation within the basin via EQIP;
- Set a goal of permanently retiring 30,000 acres from irrigation (5% of the total irrigated acreage within the basin in Colorado) via CREP;
- Investigated interruptible water supply agreements with surface water users within the basin.

Another significant issue arose within the basin when the Pioneer Irrigation District, Colorado Board, and some owners of the Laird Ditch filed a petition for hearing and appeal of a decision of the State Engineer with the Colorado Ground Water Commission. The petition basically seeks to prohibit pumping by wells junior in priority to these two ditches if such pumping reduces the flow in the North Fork of the Republican River above the ditch headgates.

This petition would essentially de-designate all groundwater hydraulically connected to the surface flows in the North Fork of the Republican River. The Colorado Ground Water Commission has issued no decision yet.

Finally, as discussed more fully in the Personnel Section of this report, a new full time Water Commissioner position was approved by the legislature as a decision item for the Republican River area effective July 1, 2005. For a variety of reasons, this position was not filled in 2005, but will be filled prior to the start of the 2006 irrigation season.

## Platte River Endangered Species Partnership

State and water user representatives continue to work toward a basin-wide cooperative solution that addresses endangered species issues on the Platte River and also allows the continued use and development of water within Colorado. As of this writing, the Final EIS on the proposed Program is scheduled to come out in late March, with the Final Biological Opinion and Record of Decision to follow by a month. If there is consensus of the states and the Department of Interior, the actual Program is expected to begin in October of 2006.

Efforts are underway at the federal level to initiate legislation that will acquire both the federal funding share and federal authorization of the proposed Program. The cost of the proposed Program is estimated at \$ 314 million over the first 13 years, including water, land, and cash contributions. Costs are split on a 50/50 basis between the federal government and the states.

Colorado's participation in a basin-wide program will require between \$ 2 million and \$ 3 million per year over the first 13-year increment of the Program. The Species Conservation Trust Fund ("SCTF"), which was originally intended to completely fund Colorado's participation in a basin-wide program, was completely depleted in the recent state budget crisis. However, this year legislation has been introduced to re-capitalize the SCTF to provide



funding that would cover Colorado's early commitments to the Program, with additional funding to be considered in the future.

The water users formed a new non-profit corporation named the South Platte Water Related Activities Program, Inc. ("SPWRAP") that will assist with Colorado's participation in the Program. Among other activities SPWRAP will be a clearinghouse for water users wishing to take advantage of Colorado's water depletion plans that will provide an offset for new and existing water uses in Colorado.

As its contribution to provide resources to benefit the species under the Program, Colorado has committed to the Tamarack Plan which is designed to reduce shortages to the species' target flows by 5000 acre feet per year by the end of the 4<sup>th</sup> year of the Program, and 10,000 acre feet by year 8 of the Program. This water will be a part of Colorado's contributions to the Program, with \$ 24 million making up the remainder of Colorado's commitment.

## COURT DECISIONS

### City of Central Plan for Augmentation (92CW168 - 04SA145).

The City of Central operates wells on the North Fork of Clear Creek, the subject of this plan for augmentation. Between the location of the well and the downstream calling senior is an in-stream flow right that is junior to the well. The plan for augmentation allowed the wells to increase their historic diversion and provide the replacement water at a location downstream of the in-stream right. The Colorado Water Conservation Board (CWCB), the owner of the in-stream flow right was an objector in the case. The CWCB, argued that the proposed plan decreased the water historically available to the in-stream right and, therefore, violated the "no injury to junior appropriators" rule. The City of Central maintained it had no obligation to consider any impact on the junior in-stream water right.

The court determined the case was an issue of first impression and relied upon § 37-92-305(3), (4), (5) and (8) for its decision. While acknowledging the "dispute between the parties

hinges around the potentially conflicting language of the above provisions", the ruling of the court ultimately found its basis for a decision in the first two sentences of § 37-92-305(8):

"In reviewing a proposed plan for augmentation and in considering terms and conditions that may be necessary to avoid injury, the referee or the water judge shall consider the depletions from an applicant's use or proposed use of water, in quantity and in time, the amount and timing of augmentation water that would be provided by the applicant, and the existence, if any, of injury to any owner of or persons entitled to use water under a vested water right or a decreed conditional water right. A plan for augmentation shall be sufficient to permit the continuation of diversions when curtailment would otherwise be required to meet a valid senior call for water, to the extent that the applicant shall provide replacement water necessary to meet the lawful requirements of a senior diverter at the time and location and to the extent the senior would be deprived of his or her lawful entitlement by the applicant's diversion."

The water court held that the City of Central had no obligation to consider the impact of out-of-priority diversions on the in-stream right, which had historically benefited not from the historical stream conditions, but on the stream conditions "caused by the priority of another right". In essence, the court said the junior in-stream flow right should have recognized at the time it made its appropriation that the upstream senior right may one day be fully exercised, whereby its in-stream supply of water may be diminished.

The case was appealed to the Supreme Court (04SA145) where the Court reversed the decision, essentially upholding the right of the junior water right's vested interest in the stream conditions as found at the time the junior water right was decreed. As stated in the Court's opinion:



“On appeal, the Supreme Court reverses the water court’s determination of law that Central need not include terms and conditions to protect the instream flow right from injury under its plan for augmentation. The Supreme Court concludes the Colorado General Assembly plainly intended that the Colorado Water Conservation Board be entitled to impose terms and conditions to protect a junior instream flow right from injury under a plan for augmentation or a plan for augmentation including an exchange.”

### **Central GMS Plan for Augmentation (02CW335 – 05SA205)**

**T**his case involves a dispute between several well user groups and the Division Engineer over the inclusion of statutory language regarding 37-92-305(8), C.R.S. The Division Engineer is of the opinion that the Colorado General Assembly intended the language as a fail-safe assurance that plans for augmentation only operate without injuring the senior water rights. Opponents argue that including the language would somehow give the Division Engineer authority to allow the plan to operate outside the terms and conditions of the decree. The essence of the language in question is as follows:

“Decrees approving plans for augmentation shall require that the state engineer curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.”

The water court, without a facts specific case to argue, ruled in favor of including the statutory language. Opponents have appealed the case to the Supreme Court.

### **Ready Mixed Concrete V. FRICO (04SA285 or 96CW197)**

**T**he case started as an attempt by Ready Mixed Concrete Company to change the use of the McCanne Ditch water right from irrigation to augmentation and other uses. A number of parties, including the State and

Division Engineers, filed statements of opposition because of the unique nature of the McCanne Ditch water right.

The McCanne Ditch was decreed in 1918 to irrigate up to 300 acres with up to 900 acre-feet of water per year *independent* of other priorities on the South Platte River. The reason that the priority was decreed as *independent* of other priorities was that the source of water was obtained by draining a low area with no surface outlet that collected tail water from other ditches diverting from the South Platte.

The Division 1 Water Court ruled that the source of the McCanne Ditch was “salvaged water” and ruled at the conclusion of the applicant’s case that they had not met their burden of proving the historical use of the right and dismissed the change case. Ready Mixed then appealed the Water Court ruling to the Colorado Supreme Court.

In June of 2005 the Colorado Supreme Court affirmed the Water Court’s judgment in this case. In their affirmation, the Supreme Court found that: A) the McCanne Ditch appropriated tributary South Platte Basin water; B) the McCanne Ditch did not appropriate “developed water”, it appropriated “salvaged water”; C) decrees that erroneously determined tributary water to be “independent of other priorities” or “nontributary” were protected by *res judicata* as long as used within the original decree; and D) a change of water right application reopens the prior decree for a determination of the true nature of the right.

The Supreme Court findings listed as C) and D) above may have far reaching impacts within at least the South Platte River Basin. There are a number of decrees entered in the first 60 years of the 20<sup>th</sup> century that awarded water rights as “nontributary” or “independent of other priorities” that are physically tributary to the South Platte. This Supreme Court ruling protects the existing status of these rights, but severely limits their potential to be used for other purposes.



## PERSONNEL/WORKLOAD ISSUES

Irrigation Year 2005 once again saw many personnel changes in Division One due to vacancies, retirements and reorganizations.

Patrick Alexander was hired as the new Deputy Water Commissioner for Water Districts 8, 9 and 80 in mid-March 2004. When he was hired, this position was only a 7-month position rather than a full-time position. Through a decision item approved by the legislature, Patrick's position became a 12-month position effective July 1, 2005.

A new Engineering/Physical Science Tech II position was approved by the legislature as a decision item for the Republican River area. This new position will administer surface and ground water rights within the Republican River basin, as well as work with the Republican River Water Conservation District to help Colorado comply with the revised terms of the Republican River Compact. Unfortunately, this position was not filled in 2005, but will be filled by April 2006.

In December of 2004, we were able to hire Louis Flink to help with the coordination of the well enforcement program. He helps to track all aspects of non-exempt well compliance with statutes and augmentation plans. Louis had worked for us as a temporary employee for six months prior to his permanent hire date. Louis brings to the office great organizational skills and a wonderful sense of humor.

Because of the increase in well regulation/administration in both Division One and Division Three, the Division of Water Resources proposed a decision item for the 2006 legislative session. Division One's portion of the proposal was originally to hire 5.5 additional staff members for well enforcement along the mainstem of the South Platte. This request was reduced to 4.5 FTE by the governor's office to include 1 EPST (Engineering Physical Sciences Technician) II and 1 EPSA (Engineering Physical Sciences Assistant) III located in the Greeley Office and 1

EPSA III, 0.5 EPSA III, 0.5 EPST II Hydrographer and 0.5 Administrative Assistant all located in Sterling. There was also a request to lease office space in Sterling. As of press time, this decision has been approved by the JBC and is awaiting consideration by the whole legislature.

Last water year, we reported on the reorganization of Districts 1 and 64. This water year we were able to hire Bob Erosky as a full-time Deputy Water Commissioner in District 1. Bob came to us with a lot of water experience after being a canal superintendent for Lower Platte and Beaver Canal Company for twelve years. Bob Klenda, whose position was changed from a temporary position to a permanent part-time position, once again retired from Water Resources to move back to the Western Slope. This part-time position was added with a full-time position vacated by Linda Plate to make two 8-month permanent part-time positions in Water District 64. Charlie Sutter and Evan Snyder were hired to fill those two positions. Charlie was a ditch rider for the Farmers Pawnee Canal Company for the last eight years. Evan is a very capable young man who has worked in and around irrigated agriculture his entire life.

In September, we hired John Batka to fill the Groundwater Engineer position we created last water year after John Lochhead's retirement. John Batka's primary responsibility is to work on the many large capacity well and augmentation plan issues facing Division 1. He has both Bachelor's and Master's degrees in a Civil Engineering from CSU and has worked for several years as a water resources engineer in the consulting field. John has been a great addition to our staff.

Jim Dubler retired in November 2005 after working fourteen years as a Dam Safety Engineer for Division One. He first started working for the State as an engineer for the Department of Parks and Recreation. Jim started with the Division of Water Resources in December 1991. Jim was responsible for dam safety in Water Districts 2, 4, 5, 64 and 65. Jim



brought a wonderful dry sense of humor to our office that we miss. We wish him well in his retirement.

### *Employee Recognition*



Bob Stahl was selected as the Water Commissioner of the Year for Division One for 2005. Bob took on additional responsibility with the retirement of John Lochhead last year. Bob is now administering the South Platte River mainstem in Districts 2 and 8. This includes responsibility for water administration through metro Denver and working with most of the major municipal water supply entities there. Bob was able to take on this additional responsibility seamlessly without any major problems. This is a testimony to Bob's people skills as well as his hard work and technical ability.

Garver Brown and Boyd Sheets were both recognized for the exemplary work they do as Deputy Water Commissioners in Districts 23 and 6, respectively. They are both highly regarded by their peers and lead Water Commissioners as well as very well respected and trusted by the water users within the Districts they serve.

George Sievers was recognized for his dedication to the Division of Water Resources

and the water users in the Cache la Poudre and South Platte River basins. George has worked for Division One for over 30 years in many different capacities. For the last 17 years George has worked as a Hydrographer throughout the Division and he is regarded as one of the best, if not the best, Hydrographer in the Division.

Lee Cunning and Russell Stroud were also recognized for their willingness to take on the additional workload of covering gaging stations that were the responsibility of Merlin Friedrichsen. Merlin had major surgery in July and August was out on medical leave during the summer and fall of 2005. With Merlin out on leave, the Hydrography staff was short handed and Lee and Russell took it upon themselves to fill in for Merlin's absence.



## Runoff Forecast

### SOUTH PLATTE RIVER BASIN Reservoir Storage (1000 AF) - End of January

RESERVOIR	USABLE CAPACITY	USABLE STORAGE		
		THIS YEAR	LAST YEAR	AVERAGE
ANTERO	20.0	6.9	0.5	16.4
BARR LAKE	32.0	22.4	22.4	24.0
BLACK HOLLOW	8.0	1.5	1.8	3.9
BOYD LAKE	49.0	30.5	42.3	32.1
BUTTON ROCK	16.2	14.3	15.4	13.0
CACHE LA POUFRE	10.0	5.6	9.0	7.2
CARTER	108.9	54.2	66.9	84.6
CHAMBERS LAKE	9.0	4.5	6.0	3.0
CHEESMAN	79.0	73.2	68.8	59.7
COBB LAKE	34.0	9.1	3.5	13.9
ELEVEN MILE	97.8	99.0	98.4	95.9
EMPIRE	38.0	20.8	14.9	22.8
FOSSIL CREEK	12.0	8.4	9.6	6.8
GROSS	41.8	26.8	32.4	26.0
HALLIGAN	6.4	4.1	6.1	4.3
HORSECREEK	16.0	12.5	13.7	11.6
HORSETOOTH	149.7	73.9	108.1	99.0
JACKSON	35.0	22.4	21.7	26.1
JULESBURG	28.0	15.9	14.3	18.8
LAKE LOVELAND	14.0	11.5	11.8	8.7
LONE TREE	9.0	6.9	7.6	6.4
MARIANO	6.0	3.4	4.9	4.2
MARSHALL	10.0	5.0	9.4	5.1
MARSTON	13.0	0.8	6.8	12.8
MILTON	24.0	18.7	18.7	15.5
POINT OF ROCKS	70.0	50.1	49.1	57.0
PREWITT	28.2	21.6	21.9	19.3
RIVERSIDE	63.1	42.9	43.6	41.7
SPINNEY MOUNTAIN	48.7	36.3	16.1	33.3
STANDLEY	42.0	35.6	38.8	33.1
TERRY LAKE	8.0	5.4	3.6	5.3
UNION	13.0	10.4	12.6	10.6
WINDSOR	19.0	6.4	10.7	10.8

Information taken from Colorado Basin Outlook Report, February 1, 2006

### SOUTH PLATTE RIVER BASIN WATER SNOWPACK

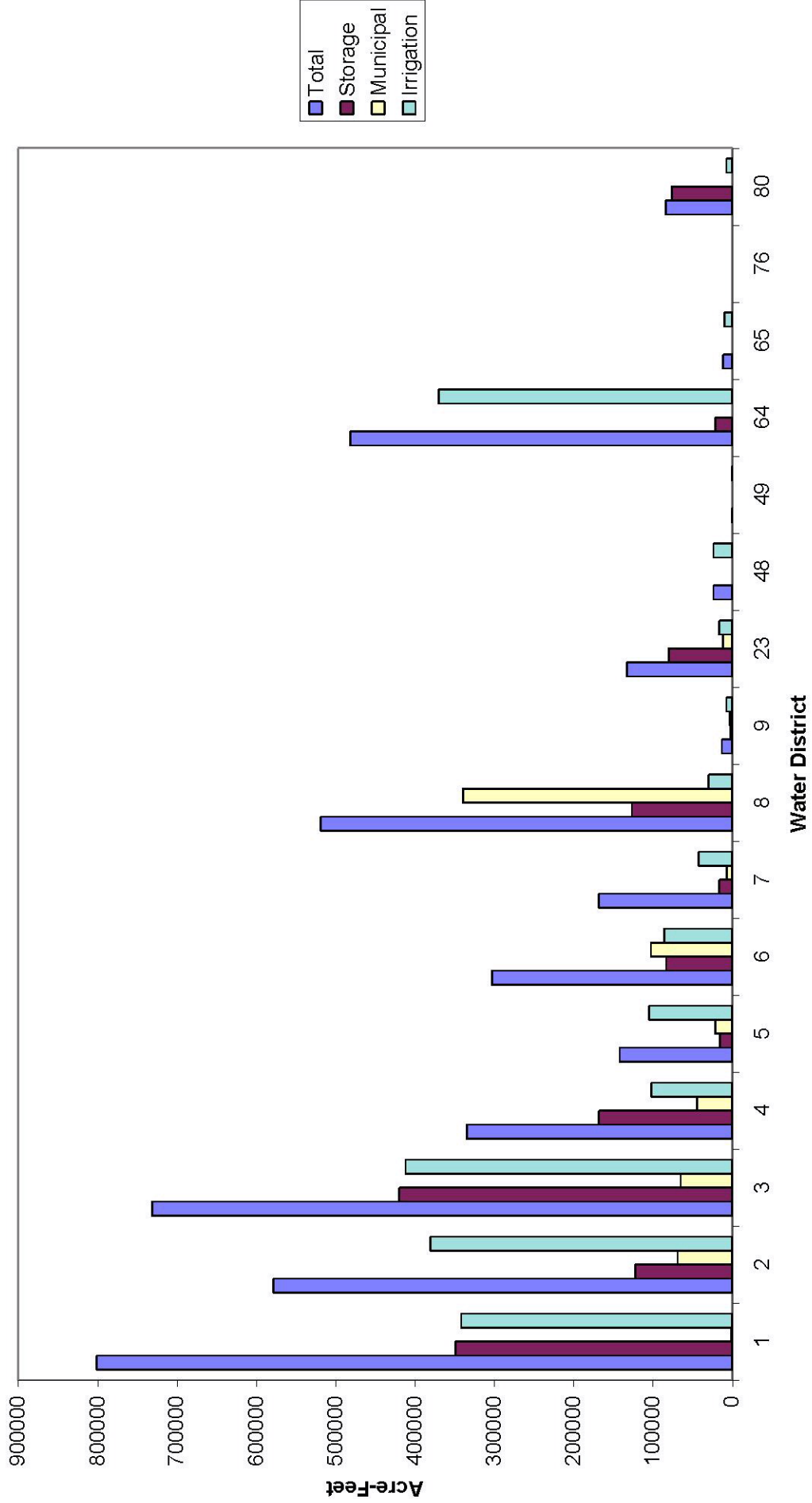
WATERSHED	NUMBER OF DATA SITES	THIS YEAR AS % OF	
		LAST YEAR	AVERAGE
BIG THOMPSON BASIN	7	122	104
BOULDER CREEK BASIN	5	143	119
CACHE LA POUFRE BASIN	8	135	110
CLEAR CREEK BASIN	4	159	148
SAINT VRAIN BASIN	4	134	103
UPPER SOUTH PLATTE BASIN	15	124	105

\*Information taken from Colorado Basin Outlook Report, February 1, 2006.



Water Division Graph

DIVISION 1  
2005 Diversions





Transmountain Diverion Summary

2005 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS  
(November 2004 - October 2005)

		RECIPIENT						CURRENT YEAR				SOURCE			
WD	ID	NAME	STREAM	AF	DAYS	10 YEAR AVG	AF	DAYS	DAYS	WD	ID	WD	ID	WD	ID
3	4604	WILSON SUPPLY DITCH	CACHE LA POUVRE RIVER	1,304	54		1,812	76	48		4604	48	4604	48	SAND & DEADMAN CR.
3	4608	DEADMAN DITCH	CACHE LA POUVRE RIVER	201	31		651	83	48		4608	48	4608	48	DEADMAN CREEK
3	4606	BOB CREEK DITCH	CACHE LA POUVRE RIVER	55	34		188	56	48		4606	48	4606	48	NUNN CREEK
3	4607	COLUMBINE DITCH	CACHE LA POUVRE RIVER	0	0		0	0	48		4607	48	4607	48	DEADMAN CREEK
3	4600	LARAMIE-POUDRE TUNNEL	CACHE LA POUVRE RIVER	9,677	91		9,181	77	48		4600	48	4600	48	LARAMIE RIVER
3	4605	SKYLINE DITCH	CACHE LA POUVRE RIVER	215	10		0	0	48		4605	48	4605	48	LARAMIE RIVER
3	4602	CAMERON PASS DITCH	CACHE LA POUVRE RIVER	42	20		89	41	47		4602	47	4602	47	MICHIGAN RIVER
3	4603	MICHIGAN DITCH	CACHE LA POUVRE RIVER	3,173	317		2,928	365	47		4603	47	4603	47	MICHIGAN RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUVRE RIVER	12,960	144		10,673	150	51		4601	51	4601	51	COLORADO RIVER
4	4634	ADAMS TUNNEL	BIG THOMPSON RIVER	158,708	338		85,481	280	51		4634	51	4634	51	COLORADO RIVER
6	4655	MOFFAT TUNNEL	SOUTH PLATTE RIVER	36,840	365		27,909	365	51		4655	51	4655	51	FRASER RIVER
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	713	65		404	75	51		4625	51	4625	51	FRASER RIVER
7	4626	VIDLER TUNNEL	CLEAR CREEK	307	74		261	81	36		4626	36	4626	36	MONTEZUMA CREEK
7	4682	STRAIGHT CREEK TUNNEL	CLEAR CREEK	150	256		182	365	36		4682	36	4682	36	STRAIGHT CREEK
8	653	ROBERTS TUNNEL	SOUTH PLATTE RIVER	50,575	283		31,011	250	36		4684	36	4684	36	BLUE RIVER
23	4611	BOREAS PASS DITCH	SOUTH PLATTE RIVER	128	66		67	68	36		4685	36	4685	36	INDIANA CREEK
23	4612	HOOSIER PASS DITCH	ARKANSAS RIVER	6,395	163		5,671	155	36		4683	36	4683	36	BLUE RIVER
23	4490	AURORA HOMESTAKE	SOUTH PLATTE RIVER	18,762	214		22,746	296	37		4644	37	4644	37	HOMESTAKE CREEK



**Reservoir Storage Summaries**

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 1**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)										
				MINIMUM		MAXIMUM		MINIMUM		MAXIMUM				
				AF	DATE	AF	DATE	AF	DATE	AF	DATE			
1	3570	BIJOU #2	SOUTH PLATTE	0	11/30/04	1,200	02/28/05							0
1	3816	EMPIRE	SOUTH PLATTE	2,894	09/30/05	34,930	04/30/05							2,940
1	3817	JACKSON	SOUTH PLATTE	11,526	09/30/05	27,256	03/31/05							16,912
1	3651	RIVERSIDE	SOUTH PLATTE	12,856	09/20/05	63,113	04/30/05							22,856
1	3400	VANCIL	SOUTH PLATTE	0	11/30/04	3,466	10/31/05							3,466
1	3902	LORD	SOUTH PLATTE	0	11/30/04	1,303	04/30/05							0
1	3609	PROSPECT	PROSPECT CREEK	987	12/31/04	5,629	04/30/05							3,091
1	3592	HORSE	HORSE CREEK	1,946	10/31/05	15,975	04/30/05							1,946
1		OTHERS		0		672								7
1		TOTALS		30,209		153,544								51,218



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 2**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
2	3837	OASIS RES/BARR	SOUTH PLATTE	5,081	09/30/05	30,723	02/28/05	9,355	
2	3351	BULL CANAL #8	CLEAR CREEK	948	08/31/05	3,636	06/30/05	1,513	
2	3861	GREAT WESTERN	WALNUT CREEK	1,586	10/31/05	2,281	06/30/05	1,586	
2	3592	HORSE CREEK	SOUTH PLATTE	2,008	09/30/05	15,975	04/30/05	1,946	
2	3858	LOWER LATHAM	SOUTH PLATTE	1,935	08/31/05	6,212	11/30/04	2,510	
2	3876	MILTON	SOUTH PLATTE	4,729	09/30/05	21,883	04/30/05	7,162	
2	3609	PROSPECT	SOUTH PLATTE	987	12/31/04	5,629	04/30/05	3,091	
2	3903	STANDLEY	WOMAN CREEK	35,004	09/30/05	42,385	04/30/05	35,115	
2	3700	TANI LAKES COMBINED	SOUTH PLATTE	5,122	09/30/05	7,016	11/30/04	6,285	
2	3699	WEST GRAVEL LAKES COMBINED	SOUTH PLATTE	2,286	10/31/05	2,735	01/31/05	2,286	
2		OTHERS		2,047		5,049		2,945	
2		TOTALS		61,733		143,524		73,794	



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 3**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		AF	DATE	
				AF	DATE	AF	DATE			
3	3774	FOSSIL CREEK	FOSSIL CREEK	3,404	09/30/05	10,857	05/31/05	10,857	05/31/05	6,593
3	3712	HALLAGAN/NORTH POUUDRE #16	N FK POUUDRE RIVER	1,068	09/30/05	6,428	05/31/05	6,428	05/31/05	1,445
3	3707	INDIAN CREEK/MTN SUPPLY #16	INDIAN CREEK	533	08/31/05	1,297	06/30/05	1,297	06/30/05	667
3	3697	NORTH POUUDRE #2/DEMMELE LAKE	N FK POUUDRE RIVER	2,175	07/31/05	3,416	03/31/05	3,416	03/31/05	2,516
3	3702	NORTH POUUDRE #3/HACKEL LAKE	N FK POUUDRE RIVER	0	11/01/04	2,318	10/31/05	2,318	10/31/05	2,318
3	3704	NORTH POUUDRE #4	N FK POUUDRE RIVER	257	08/31/05	800	12/31/04	800	12/31/04	482
3	3698	NORTH POUUDRE #5/BEE LAKE	N FK POUUDRE RIVER	3,619	02/28/05	6,214	06/30/05	6,214	06/30/05	4,779
3	3716	NORTH POUUDRE #15	N FK POUUDRE RIVER	3,014	09/30/05	5,177	03/31/05	5,177	03/31/05	3,089
3	3715	PARK CREEK	PARK CREEK	2,598	08/31/05	6,891	04/30/05	6,891	04/30/05	2,770
3	3730	COBB LAKE	CACHE LA POUUDRE RIVER	3,416	11/30/04	13,200	06/30/05	13,200	06/30/05	9,292
3	3713	SEAMAN/MILTON SEAMAN	N FK POUUDRE RIVER	5,008	11/01/04	5,008	11/01/04	5,008	11/01/04	5,008
3	3780	CLAYMORE	CACHE LA POUUDRE RIVER	175	09/30/05	866	05/31/05	866	05/31/05	391
3	3772	SEELEY	CACHE LA POUUDRE RIVER	759	11/01/04	1,133	07/31/05	1,133	07/31/05	1,122
3	3804	WARREN	CACHE LA POUUDRE RIVER	743	09/30/05	2,138	05/31/05	2,138	05/31/05	1,392
3	3786	WOOD	ROLLARD DRAW	1,185	11/01/04	2,647	06/30/05	2,647	06/30/05	2,514
3	3678	MOUNTAIN SUPPLY RESERVOIR #20	JOE WRIGHT RESERVOIR	4,016	10/31/05	7,161	05/31/05	7,161	05/31/05	4,016
3	3952	RAWHIDE	CACHE LA POUUDRE RIVER	15,209	11/01/04	16,101	02/28/05	16,101	02/28/05	15,751
3	3732	HORSETOOTH	DIXON CANYON CREEK	69,882	10/31/05	151,761	06/30/05	151,761	06/30/05	69,882
3	3725	DOUGLASS	CACHE LA POUUDRE RIVER	3,256	11/01/04	8,320	06/30/05	8,320	06/30/05	4,702
3	3727	WINDSOR RESERVOIR #8	CACHE LA POUUDRE RIVER	3,869	04/30/05	10,045	06/30/05	10,045	06/30/05	7,690
3	3728	NO. 8 ANNEX	CACHE LA POUUDRE RIVER	99	11/01/04	3,725	06/30/05	3,725	06/30/05	2,078
3	3738	WINDSOR RESERVOIR	CACHE LA POUUDRE RIVER	3,049	08/31/05	16,333	06/30/05	16,333	06/30/05	6,431
3	3679	CHAMBERS	JOE WRIGHT CREEK	3,962	09/30/05	8,712	06/30/05	8,712	06/30/05	5,126
3	3676	LONG DRAW/GRAND RIVER	LONG DRAW CREEK	2,673	09/30/05	10,837	06/30/05	10,837	06/30/05	2,763
3		SUBTOTALS		133,969		301,385		301,385		162,817



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 3 (CONTINUED)

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
		BALANCE FROM PREVIOUS PAGE		133,969		301,385		162,817	
3	3744	BLACK HOLLOW	CACHE LA POUUDRE RIVER	2,627	10/31/05	5,397	05/31/05	2,627	
3	3735	CURTIS	CACHE LA POUUDRE RIVER	259	04/30/05	640	05/31/05	596	
3	3740	KLUVER	CACHE LA POUUDRE RIVER	249	12/31/04	751	02/28/05	466	
3	3742	LONG POND/WATER SUPPLY #5	CACHE LA POUUDRE RIVER	2,052	09/30/05	2,993	04/30/05	2,175	
3	3736	ROCKY RIDGE/WATER SUPPLY #1	CACHE LA POUUDRE RIVER	2,973	03/31/05	4,292	08/31/05	2,992	
3	3737	WATER SUPPLY #2 & #3	CACHE LA POUUDRE RIVER	1,390	11/01/04	4,301	02/28/05	2,806	
3	3739	WATER SUPPLY #4	WATER SUPPLY RES #2 & #3	329	11/01/04	690	02/28/05	396	
3	3805	TERRY/LARIMER WELD	CACHE LA POUUDRE RIVER	1,242	09/30/05	7,628	06/30/05	2,997	
3	3726	WORSTER	SHEEP CREEK	124	08/31/05	3,696	06/30/05	208	
3	3775	TIMNATH	DUCK SLOUGH	0	08/31/05	10,054	06/30/05	3,470	
3	3770	WINDSOR LAKE	CACHE LA POUUDRE RIVER	2,079	12/31/04	3,190	09/30/05	2,405	
3	3683	BARNES MEADOW RESERVOIR	BARNES MEADOWS CREEK	713	11/01/04	2,349	06/30/05	2,231	
3	3699	NORTH POUUDRE RESERVOIR #6	N FK POUUDRE RIVER	2,348	11/01/04	7,101	06/30/05	5,929	
3	3708	MOUNTAIN SUPPLY RESERVOIR #18	BOX ELDER CREEK	0	11/01/04	784	08/31/05	535	
3	3745	DOWDY LAKE RESERVOIR	SOUTH PINE CREEK	667	02/28/05	952	05/31/05	800	
3	3751	SOUTH GRAY RESERVOIR	BOX ELDER CREEK	193	09/30/05	633	06/30/05	247	
3	3686	COMANCHE RESERVOIR	BIG BEAVER CREEK	0	11/01/04	2,629	06/30/05	0	
3	3814	PANHANDLE RESERVOIR	PANHANDLE CREEK	1,017	11/01/04	1,017	11/01/04	1,017	
3		OTHERS		4,458		10,235		6,176	
3		TOTALS		156,689		370,717		200,890	

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 4

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
4	4156	BOULDER & LARIMER/ISH	LITTLE THOMPSON	2,251	08/31/05	6,744	06/30/05	2,647	
4	4110	BOYD LAKE	BIG THOMPSON	28,621	09/30/05	47,315	05/31/05	30,795	
4	4513	CARTER	BIG THOMPSON	25,816	10/31/05	100,326	03/31/05	25,816	
4	4116	DONATH	BIG THOMPSON	407	11/30/04	1,153	05/31/05	480	
4	4166	HERTHA RESERVOIR	DRY CREEK HERTHA	1,285	11/30/04	1,622	03/31/05	1,543	
4	4123	HORSETOOTH RESERVOIR	BIG THOMPSON	1,960	09/30/05	7,668	05/31/05	2,083	
4	4131	LOVELAND GREELEY RESERVOIR	BIG THOMPSON	9,431	03/31/05	12,736	06/30/05	12,106	
4	4136	LON HAGLER	BIG THOMPSON	4,040	02/28/05	5,208	06/30/05	4,912	
4	4137	LONE TREE	BIG THOMPSON	3,037	09/30/05	8,769	03/31/05	3,672	
4	4133	LOVELAND LAKE	BIG THOMPSON	235	11/30/04	1,044	06/30/05	676	
4	4134	BOEDECKER LAKE/MARINO	BIG THOMPSON	1,227	09/30/05	5,571	04/30/05	2,947	
4	4146	WELCH LAKE	BIG THOMPSON	4,408	03/31/05	6,894	06/30/05	5,835	
4		OTHERS		1,318		2,686		2,167	
4		TOTALS		84,036		207,736		95,679	



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 5

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE		
5	4020	BEAVER POND	BEAVER CREEK	320	08/31/05	2,340	06/30/05	320	
5	4071	FOOTHILLS	ST. VRAIN	401	09/30/05	2,832	06/30/05	572	
5	4037	HIGHLAND #1	ST. VRAIN	556	07/31/05	1,033	12/31/04	947	
5	4032	HIGHLAND #2	ST. VRAIN	1,857	07/31/05	3,678	06/30/05	2,663	
5	4038	HIGHLAND #3	ST. VRAIN	587	09/30/05	1,474	04/30/05	1,070	
5	4073	MCINTOSH	ST. VRAIN	1,324	09/30/05	2,254	12/31/04	1,583	
5	4063	PLEASANT VALLEY	ST. VRAIN	2,492	09/30/05	3,076	04/30/05	2,586	
5	4067	OLIGARCHY RESERVOIR #1	ST. VRAIN	946	09/30/05	1,718	05/31/05	1,104	
5	3905	UNION	ST. VRAIN	12,026	10/31/05	12,768	06/30/05	12,026	
5	4076	LEFT HAND PARK	LEFT HAND CREEK	629	09/30/05	1,549	06/30/05	629	
5	4488	LEFT HAND VALLEY	LEFT HAND CREEK	205	11/30/04	1,516	05/31/05	707	
5	4010	BUTTON ROCK	ST. VRAIN	14,501	03/31/05	16,286	06/30/05	16,197	
5	4072	CLOVER BASIN RESERVOIR	ST. VRAIN	586	08/31/05	635	11/30/04	602	
5	4081	LAGERMANN	LEFT HAND CREEK	827	11/30/04	920	07/31/04	901	
5	4065	MCCALL RESERVOIR	ST. VRAIN	479	11/30/04	479	11/30/04	479	
5		TOTALS		37,736		52,558		42,386	

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 6

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
6	4172	BARKER	BOULDER CREEK	8,266	03/31/05	11,329	06/30/05	8,772	
6	4173	BASELINE	BOULDER CREEK	3,659	10/31/05	5,326	04/30/05	3,659	
6	4515	BOULDER	BOULDER CREEK	8,007	03/31/05	9,684	04/30/05	8,429	
6	4489	GOOSE	NORTH BOULDER CREEK	800	10/31/05	1,036	11/30/04	800	
6	4199	GROSS	SOUTH BOULDER CREEK	21,791	03/31/05	41,317	06/30/05	34,779	
6	4178	HILLCREST	BOULDER CREEK	2,050	03/31/05	2,207	05/31/05	2,101	
6	4180	LEGGETT	BOULDER CREEK	1,483	03/31/05	1,601	05/31/05	1,522	
6	4212	MARSHALL	SOUTH BOULDER CREEK	3,937	10/31/05	9,655	04/30/05	3,937	
6	4185	PANAMA	BOULDER CREEK	1,450	09/30/05	4,250	04/30/05	1,800	
6	4238	SILVER	NORTH BOULDER CREEK	1,773	03/31/05	3,996	11/30/04	3,892	
6	4187	SIX MILE	BOULDER CREEK	340	10/31/05	1,400	03/31/05	340	
6	4230	VALMONT	SOUTH BOULDER CREEK	7,067	9/30/05	7,426	05/31/05	7,186	
6		OTHERS		1,555		1,542		1,750	
6		TOTALS		62,178		100,769		78,967	



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 7

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
7	3324	RALSTON	RALSTON CREEK	7,008	01/31/05	10,139	06/30/05	7,797	
7	4415	LONG LAKE RESERVOIR UPPER	RALSTON CREEK	1,128	10/31/05	1,464	06/30/05	1,128	
7	3406	COORS B #3	CLEAR CREEK	1,165	10/31/05	2,452	11/30/04	1,165	
7	3407	COORS B #4	CLEAR CREEK	3,807	10/31/05	4,000	11/30/04	3,807	
7	3308	BLUNN	CLEAR CREEK	3,702	03/31/05	6,353	07/31/05	5,240	
7	3702	FAIRMOUNT	CLEAR CREEK	787	06/30/05	967	12/31/04	972	
7	4411	MAPLE GROVE	SOUTH CLEAR CREEK	733	11/30/04	1,102	04/30/05	1,004	
7		OTHERS		1,598		2,643		1,902	
7		TOTALS		19,928		29,120		23,015	

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 8

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
8	3514	CHATFIELD	SOUTH PLATTE	17,403	11/30/04	27,259	05/31/05	22,679		
8	3532	CHERRY CREEK	CHERRY CREEK	12,190	09/30/05	13,200	12/31/04	12,215		
8	3832	MCLELLAN	DAD CLARK DITCH	4,224	09/30/05	5,866	04/30/05	4,698		
8	3983	STRONTIA SPRINGS DVR DAM	SOUTH PLATTE	6,762	08/31/0	7,997	04/30/05	6,935		
8		TOTALS		40,579		54,322		46,527		



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 9

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)							
				MINIMUM		MAXIMUM		MINIMUM		MAXIMUM	
				AF	DATE	AF	DATE	AF	DATE	AF	DATE
9	3815	SODA #1, #2	BEAR CREEK	1,271	02/28/05	1,465	04/30/05	1,465	04/30/05	1,422	1,422
9	4281	BOWLES	BEAR CREEK	1,374	10/31/05	2,079	04/30/05	2,079	04/30/05	1,374	1,374
9	4314	PATRICK	BEAR CREEK	1,161	11/30/04	1,165	04/30/05	1,165	04/30/05	1,165	1,165
9	3999	BEAR CREEK RESERVOIR	BEAR CREEK	1,773	09/30/05	2,050	05/31/05	2,050	05/31/05	1,943	1,943
9	3501	MARSTON	SOUTH PLATTE	6,777	09/30/05	19,584	05/31/05	19,584	05/31/05	7,031	7,031
9		OTHERS		2,534		3,576		3,576		2,946	2,946
9		TOTALS		14,890		29,919		29,919		15,881	15,881

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 23

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE		
23	3904	ANTERO	S FK SOUTH PLATTE	105	11/30/04	6,718	10/31/05	6,718	
23	3981	JEFFERSON LAKE RESERVOIR	JEFFERSON LAKE	967	04/30/05	1,829	06/30/05	1,327	
23	3965	ELEVEN MILE	MID FK SOUTH PLATTE	97,034	11/30/04	100,209	07/31/05	99,692	
23	3962	MONTGOMERY	MID FK SOUTH PLATTE	669	04/30/05	4,092	08/31/05	3,707	
23	4013	SPINNEY MOUNTAIN	MID FK SOUTH PLATTE	18,734	12/31/04	39,875	07/31/05	34,986	
23		TOTALS		117,509		152,723		146,430	



**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 64

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE		
64	3552	PREWITT	SOUTH PLATTE	10,240	09/30/05	28,600	03/31/05	21,990	
64	3551	NORTH STERLING	SOUTH PLATTE	14,490	09/30/05	74,590	03/31/05	17,770	
64	3906	JULESBURG	SOUTH PLATTE	5,851	09/30/05	22,961	04/30/05	8,873	
64		TOTALS		30,581		126,151		48,633	

**2004-2005 RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 80

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE		
80	3550	CHEESMAN	S FK SOUTH PLATTE	67,079	11/30/04	79,633	05/31/05	74,583	
80	3829	WELLINGTON	N FK SOUTH PLATTE	3,243	11/30/04	4,399	05/31/05	3,442	
80	3828	ALTURA RESERVOIR	GENEVA CREEK	0	11/30/04	430	06/30/05	0	
80		TOTAL		70,322		84,462		78,025	



**WATER DIVERSION SUMMARIES 2004-2005**

WD	DITCHES REPORTING			OTHERS			ESTIMATED NUMBER OF STRUCTURE VISITS	TOTAL DIVERSIONS (AF)	TOTAL DIVERSIONS TO STORAGE	TO IRRIGATION		
	WITH RECORD	NO WATER AVAIL.	NO WATER TAKEN	NO INFO AVAIL.	NO RECORDS	TOTAL DIVERSIONS (AF)				TOTAL DIVERSIONS (AF)	NO. OF ACRES IRRIGATED	AVG AF PER ACRE
1	406	25	309	139	5,248	5,704	800,810	348,605	341,435	210,000	1.63	
2	361	25	455	37	4,408	2,660	578,225	122,293	380,048	180,000	2.11	
3	253	0	60	25	2,884	2,489	731,160	419,334	411,491	180,000	2.29	
4	134	0	52	11	1,295	2,876	334,191	168,040	101,627	100,000	1.02	
5	155	1	24	24	1,218	2,960	141,840	15,308	104,705	40,000	2.62	
6	187	1	57	69	1,690	6,091	302,802	83,271	85,801	35,000	2.45	
7	157	0	123	5	1,764	3,520	167,864	16,366	42,125	14,000	3.01	
8	817	20	288	285	8,271	1,446	518,570	126,229	29,787	18,000	1.65	
9	142	2	19	7	1,681	2,001	13,243	2,423	7,395	1,700	4.30	
23	239	2	120	35	2,387	1,260	132,816	79,889	16,170	9,565	1.69	
48	55	0	20	0	71	2,547	23,668	0	23,668	5,000	4.73	
49	4	0	19	0	34	495	567	0	567	1,500	0.38	
64	337	0	79	80	1,992	5,287	481,412	21,007	369,757	190,000	1.95	
65	13	0	22	0	89	*	11,414	0	9,951	4,700	2.12	
76	0	0	0	0	0	*	0	0	0	350	0.00	
80	172	12	26	5	982	*	83,972	76,108	7,217	4,000	1.80	
TOT	3,432	88	1,673	722	34,014	39,336	4,322,554	1,478,873	1,931,654	993,815	1.94	

\*DISTRICT 9 DITCH VISITS COMBINED WITH DISTRICT 80

\*DISTRICT 48 DITCH VISITS COMBINED WITH DISTRICT 76

\*DISTRICTS 49 DITCH VISITS COMBINED WITH DISTRICT 65

WATER DIVERSION SUMMARIES TO VARIOUS USE 2004-2005

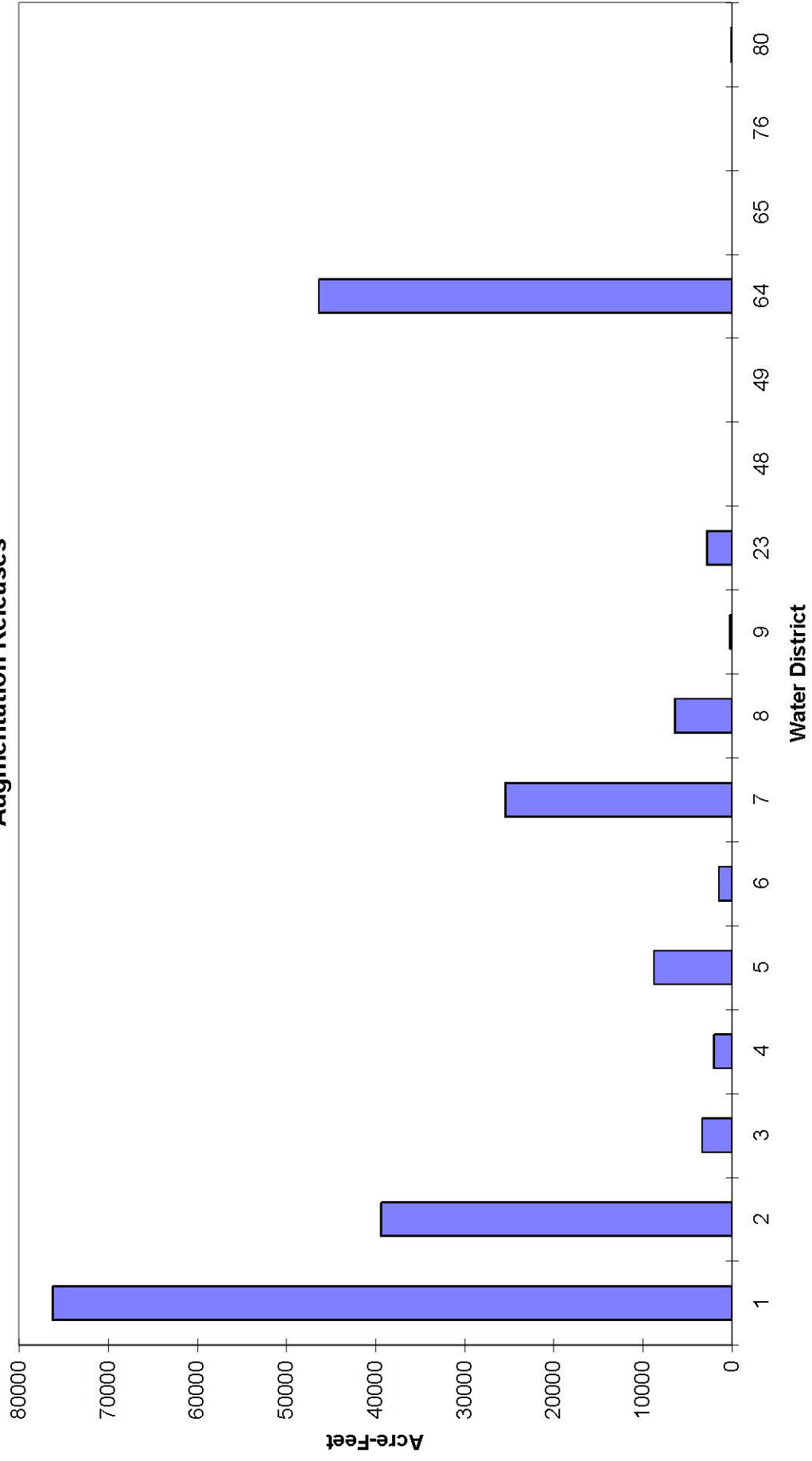
WD	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
1	0	0	1,564	160	1,021	0	0	44	179
2	0	0	68,642	731	9,597	0	0	37	7
3	0	0	64,945	0	3,764	0	0	33	0
4	0	0	44,330	42	0	0	0	0	0
5	0	0	21,064	10	0	0	0	27	0
6	0	0	102,332	68	523	0	0	0	0
7	0	0	7,136	0	44,132	0	0	0	61
8	0	0	339,138	1,286	4,867	0	1,541	44	0
9	0	0	2,782	25	0	0	0	0	0
23	12,497	0	11,425	0	630	3,620	0	13	91
48	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	0	0	0	0	60,544	0	0	0	0
65	0	0	0	0	0	0	1,453	0	0
76	0	0	0	0	0	0	0	0	0
80	0	0	85	18	0	0	0	0	0
TOT	12,497	0	663,443	2,340	125,078	3,620	2,994	198	338

WD	AUGMENTATION	EVAPORATION	GEOTHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
1	76,176	0	0	0	0	0	0	88,837	0
2	39,348	32	0	0	0	0	0	6,909	0
3	3,346	7,480	0	0	0	0	0	4,342	0
4	1,986	0	0	0	0	855,684	0	980	0
5	8,736	0	0	0	899	0	0	0	0
6	1,458	0	0	0	13,857	6,466	0	0	0
7	25,424	552	0	115	0	0	0	1,262	0
8	6,398	3,739	0	0	0	0	0	0	0
9	210	241	0	0	0	0	0	0	0
23	2,790	0	0	0	0	0	0	171	0
48	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	46,335	0	0	0	0	0	0	87,466	0
65	10	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	76	0	0	0	0	0	0	0	0
TOT	212,293	12,044	0	115	14,756	862,150	0	189,967	0



# Augmentation Releases Graph

## DIVISION 1 2005 Augmentation Releases



## Water Court Activities

Calendar Year 2005

New Applications made to water court this year..... 346  
 Consultations with Referee this year..... 359  
 Decrees Issued by Court this year..... 576  
 Dismissals..... 10

### TYPES OF RULINGS

TYPE OF RULING	NUMBER OF CASES	NUMBER OF STRUCTURES
Findings of Diligence on Conditional Rights	56	224
Exchanges Adjudicated	23	37
Conditional Rights Made Absolute	15	25
Surface Water Rights Adjudicated	24	68
Underground Water Rights Adjudicated	362	1312
Water Storage Rights Adjudicated	37	66
Plans for Augmentation Adjudicated	55	350
Changes of Water Rights Adjudicated	44	194
Withdrawn	1	1
Abandoned Water Rights	1	2
Injunctions	5	5
Recharge Sites	2	98
Vacated	3	3



**Water Call Record**  
**CALLING PRIORITY 2004-2005**

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
2004-2005	2004-2005						
11/01/04	11/04/04	South Platte Recharge Bypass to Julesburg	07/23/1977	46590.00000	64	Russell Stroud	64
11/01/04	11/10/04	Empire Bypass to Jackson	05/18/1905	26302.20226	1	Brent Schantz	1,2,3,4,5,6,7,8,9
11/01/04	11/10/04	Prewitt Reservoir	05/25/1910	22059.00000	1	Brent Schantz	1
11/04/04	11/10/04	South Platte Ditch Bypass to Julesburg	03/15/1974	45364.00000	64	Russell Stroud	64
11/10/04	12/24/04	Riverside Bypass to Jackson	08/01/1907	21031.00000	1	Brent Schantz	1 (12/24/04) 2,3,4,5,6,7,8,9
11/10/04	12/02/04	Prewitt Reservoir Bypass to Julesburg	05/25/1910	22059.00000	64	Russell Stroud	64,1
12/01/04	04/04/05	Denver Intake	05/01/1899	18018.00000	8	Denver	8
12/02/04	02/23/05	Prewitt Reservoir	05/25/1910	22059.00000	64	Brent Schantz	1,2,3,4,5,6,7,8,9
12/13/04	12/16/04	Harmony	12/31/2002	55882.00000	64	Russell Stroud	1,64
12/16/04	12/20/04	Bravo Bypass to Harmony	08/20/1996	53558.00000	64	Russell Stroud	1,64
12/20/04	12/22/04	Pawnee Bypass to Harmony	05/03/1979	47239.00000	64	Russell Stroud	1,64
01/03/05	01/25/05	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	2,8,9
01/28/05	02/07/05	Milton Bypass to North Sterling	05/29/1909	21698.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
02/07/05	02/16/05	Bijou #2 Bypass to North Sterling	01/15/1909	21564.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
02/22/05	02/23/05	Bijou #2 Bypass to North Sterling	01/15/1909	21564.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
02/23/05	03/09/05	Riverside Bypass to Prewitt	10/25/1910	22212.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
03/01/05	03/09/05	South Platte Recharge Bypass to Julesburg	03/15/1974	45364.00000	64	Brent Schantz	64
03/09/05	03/21/05	Riverside Bypass to Jackson	10/25/1910	22212.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
03/09/05	03/21/05	North Sterling Bypass to Julesburg	08/01/1915	26302.23953	1	Brent Schantz	1,64
03/21/05	03/24/05	North Sterling	08/01/1915	26302.23953	1	Brent Schantz	1,2,3,4,5,6,7,8,9
03/24/05	03/28/05	Prewitt Reservoir Refill	12/31/1929	31423.29219	1	Brent Schantz	1
03/24/05	04/02/05	Empire Bypass to Riverside Reservoir	05/18/1905	26302.20226	1	Brent Schantz	1,2,3,4,5,6,7,8,9
03/28/05	03/30/05	Upper Platte & Beaver Bypass to Prewitt	06/12/1972	44723.00000	1	Brent Schantz	1
03/30/05	03/31/05	Lower Platte & Beaver Bypass to Prewitt	06/12/1972	44723.00000	1	Brent Schantz	1
03/31/05	04/01/05	Pioneer Bypass to Prewitt	06/30/1977	47847.46567	1	Brent Schantz	1
04/01/05	04/02/05	Pioneer Recharge	06/30/1977	47847.46567	1	Brent Schantz	1
04/02/05	04/11/05	Riverside Bypass to Tremont	06/17/1986	49841.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/02/05	04/04/05	Milton Bypass to Hewes & Cook	05/29/1909	21698.00000	2	Bob Stahl	2,8,9
04/04/05	04/05/05	Burlington Bypass to Hewes & Cook	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
04/05/05	04/06/05	Cheesman Bypass to Burlington	06/27/1889	14423.00000	2	Bob Stahl	2,8,9,80,23
04/06/05	04/08/05	Cheesman	06/27/1889	14423.00000	2	Bob Stahl	80,23

CALL RECORD 2004-2005 (CONTINUED)

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
2004-2005	2004-2005						
04/07/05	04/08/05	Chatfield Bypass to Hewes & Cook	12/28/1977	46748.00000	2	Bob Stahl	2,7,8,9,80,23
04/08/05	04/10/05	Cheesman Bypass to Hewes & Cook	06/27/1889	14423.00000	2	Bob Stahl	2,7,8,9,80,23
04/10/05	04/18/05	Chatfield Reservoir	12/28/1977	46748.00000	8	Denver	8
04/10/05	04/25/05	Cheesman Reservoir	06/27/1889	14423.00000	80	Denver	23,80
04/11/05	04/12/05	Riverside Bypass to Tremont (Pioneer)	03/11/1985	50769.493278	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/12/05	04/13/05	Pawnee Ditch	04/14/1994	52960.52699	64	Brent Schantz	64,1,2,3,4,5,6,7,8,9
04/13/05	04/14/05	No Call Below Chatfield					
04/14/05	04/16/05	Bravo Ditch	08/20/1996	53558.00000	64	Brent Schantz	64,1,2,3,4,5,6,7,8,9
04/16/05	04/19/05	Riverside Bypass (Vancil) to N Sterling	06/17/1986	49841.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/19/05	04/20/05	Lower Platte & Beaver Bypass to N Sterling	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/20/05	04/22/05	North Sterling Direct	05/27/1914	26302.23522	64	Brent Schantz	1,2,3,4,5,6,7,8,9
04/22/05	04/25/05	Lower Platte & Beaver Bypass to N Sterling	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/25/05	04/26/05	Empire Bypass to North Sterling	12/31/1929	31423.29219	1	Brent Schantz	1,2,3,4,5,6,7,8,9
04/26/05	04/29/05	Lower Platte & Beaver Bypass to N Sterling	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
04/26/05	05/06/05	Antero	12/31/1929	29219.00000	23	Denver	23
04/29/05	05/01/05	Tremont Bypass to North Sterling	06/30/1977	47847.46567	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/01/05	05/02/05	Tremont Bypass to Prewitt Reservoir	06/30/1977	47847.46567	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/02/05	05/04/05	Riverside Bypass (Vancil) to Prewitt	06/17/1986	49841.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/04/05	05/05/05	Lower Platte & Beaver Bypass to Prewitt	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/05/05	05/06/05	Prewitt Reservoir	12/31/1929	31423.29219	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/06/05	05/09/05	North Sterling	08/01/1915	26302.23953	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
05/09/05	05/11/05	North Sterling Bypass to Iiff & Platte Valley	08/01/1915	26302.23953	1	Brent Schantz	64,1,2,3,4,5,6,7,8,9,80,23
05/11/05	05/12/05	North Sterling Bypass to Harmony #1	08/01/1915	26302.23953	1	Brent Schantz	64,1,2,3,4,5,6,7,8,9,80,23
05/12/05	05/13/05	Prewitt Reservoir Bypass to Harmony	12/03/1929	31423.29219	1	Brent Schantz	64,1,2,3,4,5,6,7,8,9,80,23
05/13/05	05/15/05	Bravo Bypass to Harmony #1	08/20/1996	53558.00000	64	Brent Schantz	64,1,2,3,4,5,6,7,8,9,80,23
05/13/05	05/16/05	Antero	12/31/1929	29219.00000	23	Denver	23
05/15/05	05/16/05	Prewitt Reservoir Bypass to Harmony #1	12/31/1929	31423.29219	64	Brent Schantz	64,1,2,3,4,5,6,7,8,9,80,23



CALL RECORD 2004-2005 (CONTINUED)

Date Call	Date Call	Structure Name	Appropriation	Administration	District	Person	Districts
Initiated	Released	Structure Name	Date	Number	District	Placing Call	Affected
2004-2005	2004-2005						
05/16/05	05/19/05	North Sterling Direct Bypass to Harmony	05/27/1914	26302.23522	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
05/19/05	05/20/05	Riverside Bypass to Harmony Direct	05/31/1907	20969.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
05/19/05	06/02/05	South Platte Compact	06/14/1897	17332.00000	64	Brent Schantz	Affects only dist 64
05/20/05	05/23/05	Farmers Bypass to Harmony	07/11/1895	16628.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
05/23/05	05/24/05	Riverside Bypass to Harmony #1	08/01/1907	21031.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
05/24/05	05/26/05	North Sterling Direct Bypass to Harmony #1	05/27/1914	26302.23522	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
05/25/05	05/27/05	Burlington	01/13/1909	21562.00000	2	Bob Stahl	8, 9, 80, 23
05/26/05	05/29/05	North Sterling Bypass to Harmony #1	08/01/1915	26302.23953	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7
05/27/05	05/29/05	Denver Intake Bypass to Burlington	04/01/1911	22370.00000	8	Denver	2, 8, 80, 23
05/29/05	05/30/05	North Sterling Direct Bypass to Harmony #1	05/27/1914	26302.23522	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7
05/29/05	05/30/05	Burlington	01/13/1909	21562.00000	2	Bob Stahl	2, 8, 9, 80, 23
05/30/05	05/31/05	Snyder Bypass to Harmony	01/17/1902	19009.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 8, 9, 80, 23
05/31/05	06/01/05	North Sterling	08/01/1915	26302.23953	1	Brent Schantz	1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
06/01/05	06/02/05	Prewitt Reservoir	12/31/1929	31423.21219	1	Brent Schantz	1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
06/02/05	06/03/05	Prewitt Res Bypass to Iliff & Platte Valley	12/31/1929	31423.21219	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/03/05	06/04/05	Prewitt Reservoir	12/31/1929	31423.21219	64	Brent Schantz	1, 2, 3, 4, 5, 6, 7
06/03/05	06/03/05	Marston Reservoir Bypass to Burlington	04/01/1911	22370.00000	2	Bob Stahl	2, 8, 9, 23, 80
06/06/05	06/17/05	Antero Reservoir	12/31/1929	29219.00000	23	Denver	23
06/08/05	06/10/05	Denver Intake	03/21/1962	47481.40987	8	Denver	8, 23
06/17/05	06/19/05	Highline Bypass (Marston) to Burlington	04/01/1911	22370.00000	2	Bob Stahl	2, 8, 9, 23, 80
06/19/05	06/30/05	Burlington	01/13/1909	21562.00000	2	Bob Stahl	2, 8, 9, 80, 23
06/22/05	06/24/05	Riverside Bypass (Headley) to N Sterling	08/10/1990	51356.00000	1	Brent Schantz	1, 2, 3, 4, 5, 6, 7
06/24/05	06/27/05	North Sterling Direct Bypass to Harmony #1	05/27/1914	26302.23522	2	Bob Stahl	64, 1, 2, 3, 4, 5, 6, 7
06/27/05	06/29/05	Prewitt Reservoir Bypass to Harmony #1	12/31/1929	31423.21219	1	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7
06/29/05	06/30/05	North Sterling Bypass to Harmony #1	05/27/1914	26302.23522	1	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7
06/30/05	07/01/05	Burlington	11/20/1885	13108.00000	2	Bob Stahl	2, 8, 9, 80, 23
06/30/05	07/01/05	Bravo Bypass to Harmony #1	04/01/1906	23172.20544	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6
06/30/05	07/01/05	Evans #2	05/29/1909	21698.00000	2	Bob Stahl	2, 7
07/01/05	07/06/05	Bravo Bypass to Harmony #1	07/11/1895	16628.00000	64	Brent Schantz	64

CALL RECORD 2004-2005 (CONTINUED)

Date Call	Date Call	Structure Name	Appropriation	Administration	District	Person	Districts
Initiated	Released		Date	Number		Placing Call	Affected
2004-2005	2004-2005						
07/01/05	07/11/05	Lower Platte & Beaver to Farmers Pawnee	04/15/1888	13985.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6
07/01/05	07/05/05	Burlington Bypass to Hewes & Cook	11/20/1855	13108.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/05/05	07/07/05	Lupton Bottom	09/15/1873	8659.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/06/05	07/07/05	Harmony	04/28/1895	16554.00000	64	Brent Schantz	64
07/07/05	07/08/05	Brantner Bypass to Jay Thomas	07/01/1872	8218.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/07/05	07/11/05	Harmony #2 Bypass to Harmony #1	05/03/1897	17290.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6
07/08/05	07/10/05	Evans #2 to Jay Thomas	10/05/1871	7948.00000	2	Shera Sumerford	2, 7, 8, 9, 80, 23
07/10/05	09/27/05	South Platte Compact	06/14/1897				Affects only dist 64
07/10/05	07/11/05	Brighton Bypass to Jay Thomas	11/01/1871	7975.00000	2	Shera Sumerford	2, 7, 8, 9, 80, 23
07/11/05	07/18/05	AA Smith Bypass to Sterling #1	06/18/1887	13683.00000	64	Brent Schantz	1, 2, 3, 4, 5, 6, 64
07/11/05	07/18/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/13/05	07/21/05	Ft. Morgan Bypass to Lower Platte & Beaver	10/18/1882	11797.00000	1	Brent Schantz	1, 2, 3, 4, 5, 6
07/15/05	08/05/05	Harmony	04/28/1895	16554.00000	64	Brent Schantz	64
07/15/05	07/17/05	Lower Latham	11/14/1877	10180.00000	2	Bob Stahl	2, 4, 5, 6
07/18/05	07/21/05	Springdale Bypass to Sterling #1	07/19/1886	13349.00000	64	Brent Schantz	64
07/18/05	07/20/05	Hewes & Cook Bypass to Jay Thomas	08/10/1871	7892.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/20/05	07/21/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/21/05	07/26/05	Ft. Morgan Bypass to Sterling #1	10/18/1882	11797.00000	1	Brent Schantz	64, 1, 2, 3, 4, 5, 6 (7/26/05 all dists)
07/21/05	07/26/05	Hewes & Cook to Jay Thomas	08/10/1871	7892.00000	2	Shera Sumerford	2, 7, 8, 9, 80, 23
07/21/05	07/26/05	Union Bypass to Lower Latham	11/05/1874	9075.00000	2	Shera Sumerford	2, 4, 5, 6
07/25/05	07/26/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Shera Sumerford	2, 7, 8, 9, 80, 23
07/26/05	07/28/05	Ft. Morgan Bypass to Sterling #1	10/18/1882	11979.00000	64	Brent Schantz	64, 1, 2, 3, 4, 5, 6, 7, 8, 9, 80, 23
07/28/05	07/29/05	Ft. Morgan Bypass to Lower Platte & Beaver	10/18/1882	11979.00000	1	Brent Schantz	1, 2, 3, 4, 5, 6
07/28/05	08/02/05	Springdale Bypass to Sterling #1	07/19/1886	13349.00000	64	Brent Schantz	64, 7/29/05 1, 2, 3, 4, 5, 6 7/30 1 & 64
07/28/05	07/29/05	Fulton Bypass to Jay Thomas	07/08/1876	9686.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/29/05	07/31/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
07/30/05	08/03/05	Ft. Morgan Bypass to Lower Platte & Beaver	10/18/1882	11979.00000	1	Brent Schantz	1, 2, 3, 4, 5, 6
07/31/05	08/04/05	Hewes & Cook Bypass to Jay Thomas	08/10/1871	7892.00000	2	Bob Stahl	2, 7, 8, 9, 80, 23
08/02/05	08/03/05	South Platte Ext Bypass to Sterling #1	04/21/1883	12164.00000	64	Brent Schantz	64



CALL RECORD 2004-2005 (CONTINUED)

Date Call	Date Call	Structure Name	Appropriation	Administration	District	Person	Districts
Initiated	Released		Date	Number		Placing Call	Affected
2004-2005	2004-2005						
08/03/05	08/05/05	Ft. Morgan Bypass to Sterling #1	10/18/1882	11979.00000	64	Brent Schantz	64, 1,2,3 (8/4/05 all dists)
08/03/05	08/04/05	Lower Latham	11/14/1877	10180.00000	2	Bob Stahl	2,4,5,6
08/05/05	08/05/05	Springdale Bypass to Sterling #1	07/19/1886	13349.00000	64	Brent Schantz	64, 1,2,3,4,5,6,7,8,9,80,23
08/05/05	08/07/05	Prewitt Reservoir Bypass to Harmony	12/31/1929	31423.21219	64	Brent Schantz	64, 1,2,3,4,5,6,7,8,9,80,23
08/07/05	08/08/05	Prewitt Bypass to Harmony #1	12/02/1904	19765.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/07/05	08/08/05	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Shera Sumerford	2,7,8,9,80,23
08/08/05	08/09/05	Tremont Bypass to Harmony	03/01/1901	18687.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/08/05	08/12/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Bob Stahl	2,7,8,9,80,23
08/09/05	08/14/05	Harmony	04/28/1895	16554.00000	64	Brent Schantz	64
08/09/05	08/10/05	Lower Platte & Beaver Bypass to Sterling #1	04/15/1888	13985.00000	1	Brent Schantz	64, 1,2,3,4,5,6
08/10/05	08/11/05	Springdale Bypass to Sterling #1	07/19/1886	13349.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/11/05	08/14/05	Ft. Morgan Bypass to Sterling #1	10/18/1882	11979.00000	1	Brent Schantz	64, 1,2,3,4,5,6,7,8,9,80,23
08/14/05	08/15/05	Tremont Bypass (AA Smith) to Sterling #1	06/18/1887	13653.00000	1	Brent Schantz	1,64
08/14/05	08/15/05	Ft. Morgan Bypass to Lower Platte & Beaver	10/18/1882	11979.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
08/15/05	08/16/05	Lower Platte & Beaver Bypass to Sterling #1	04/15/1888	13985.00000	1	Brent Schantz	64, 1,2,3,4,5,6
08/15/05	08/17/05	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
08/16/05	08/19/05	Bijou Bypass to Sterling #1	10/01/1888	14154.0000	1	Brent Schantz	64, 1,2,3,4,5,6
08/17/05	08/18/05	Meadow Island Bypass to Jay Thomas	04/29/1882	11807.00000	2	Bob Stahl	2,7,8,9,23,80
08/18/05	08/19/05	Fulton Bypass to Jay Thomas	07/08/1876	9686.00000	2	Bob Stahl	2,7,8,9,23,80
08/19/05	08/20/05	Tremont Bypass to Sterling #1	06/18/1887	13683.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/19/05	08/24/05	Lupton Bottom Bypass to Jay Thomas	09/15/1873	8659.00000	2	Bob Stahl	2,7,8,9,23,80
08/20/05	08/22/05	Lower Platte & Beaver Bypass to Sterling #1	04/15/1888	13985.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/22/05	08/25/05	Tremont Bypass to Sterling #1	06/18/1887	13683.00000	64	Brent Schantz	64, 1,2,3,4,5,6
08/24/05	08/29/05	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
08/25/05	08/30/05	Springdale Bypass to Sterling #1	07/19/1886	13349.00000	64	Brent Schantz	64, 1
08/29/05	08/30/05	Ft. Morgan Bypass to Lower Platte & Beaver	10/18/1882	11979.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9,80,23
08/30/05	09/15/05	Evans #2 Bypass to Jay Thomas	10/05/1871	7948.00000	2	Bob Stahl	2,7,8,9,80,23
08/30/05	09/09/05	Ft. Morgan Bypass to Sterling #1	10/18/1882	11979.00000	1/64	Brent Schantz	64, 1,2,3,4,5,6
09/09/05	09/12/05	Lower Platte & Beaver Bypass to Sterling #1	04/15/1888	13985.00000	1/64	Brent Schantz	64, 1,2,3,4,5,6
09/12/05	09/17/05	Bijou Bypass to Sterling #1	10/01/1888	14154.00000	1/64	Brent Schantz	64,2,3,4,5,6,7,8,9

CALL RECORD 2004-2005 (CONTINUED)

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
2004-2005	2004-2005						
09/15/05	10/10/05	Denver Intake	06/30/1880	11139.00000	8	Denver	8,80,23
09/17/05	09/26/05	Tremont Bypass to Harmony #1	01/03/1901	18687.00000	64	Brent Schantz	1,2,3,4,5,6,7,8,9
09/26/05	10/03/05	Riverside Bypass to Harmony #1	05/31/1907	20969.00000	64	Brent Schantz	1,2,3,4,5,6,7,8,9
09/28/05	10/10/05	Burlington	11/20/1885	13108.00000	2	Bob Stahl	2,8,9
10/03/05	10/10/05	North Sterling	05/27/1914	26302.23522	64	Brent Schantz	1,2,3,4,5,6,7
10/03/05	10/10/05	Condon Recharge	04/03/1976	46114.00000	64	Brent Schantz	64
10/10/05	10/11/05	Prewitt Reservoir Refill	12/31/1929	31423.29219	1	Brent Schantz	1,2,3,4,5,6,7,8,9,23,80
10/11/05	10/11/05	Free River until Noon					
1,10/11/05	10/13/05	Cheesman	09/24/1893	15973.00000	80	Denver	80,23
10/11/05	10/13/05	Chatfield	12/28/1977	46748.00000	8	Denver	8,80
10/13/05	10/28/05	Denver Intake	10/01/1889	14519.00000	8	Denver	8,80,23
10/14/05	10/16/05	Vancil Recharge Bypass to Prewitt	06/17/1986	49841.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/16/05	10/17/05	Lower Platte & Beaver Bypass to Prewitt	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/17/05	10/17/05	Prewitt Reservoir	12/31/1929	31423.29219	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/17/05	10/18/05	Lower Platte & Beaver Bypass to Prewitt	06/12/1972	44723.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/18/05	10/25/05	Vancil Recharge Bypass to Prewitt	06/17/1986	49841.00000	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/25/05	11/01/05	Prewitt Reservoir	12/31/1929	31423.29219	1	Brent Schantz	1,2,3,4,5,6,7,8,9
10/28/05	10/31/05	Denver Intake	09/01/1892	15585.00000	8	Denver	8,80,23
10/31/05	11/09/05	Denver Intake	05/01/1899	18018.00000	8	Denver	8,80,23



**Staffing**

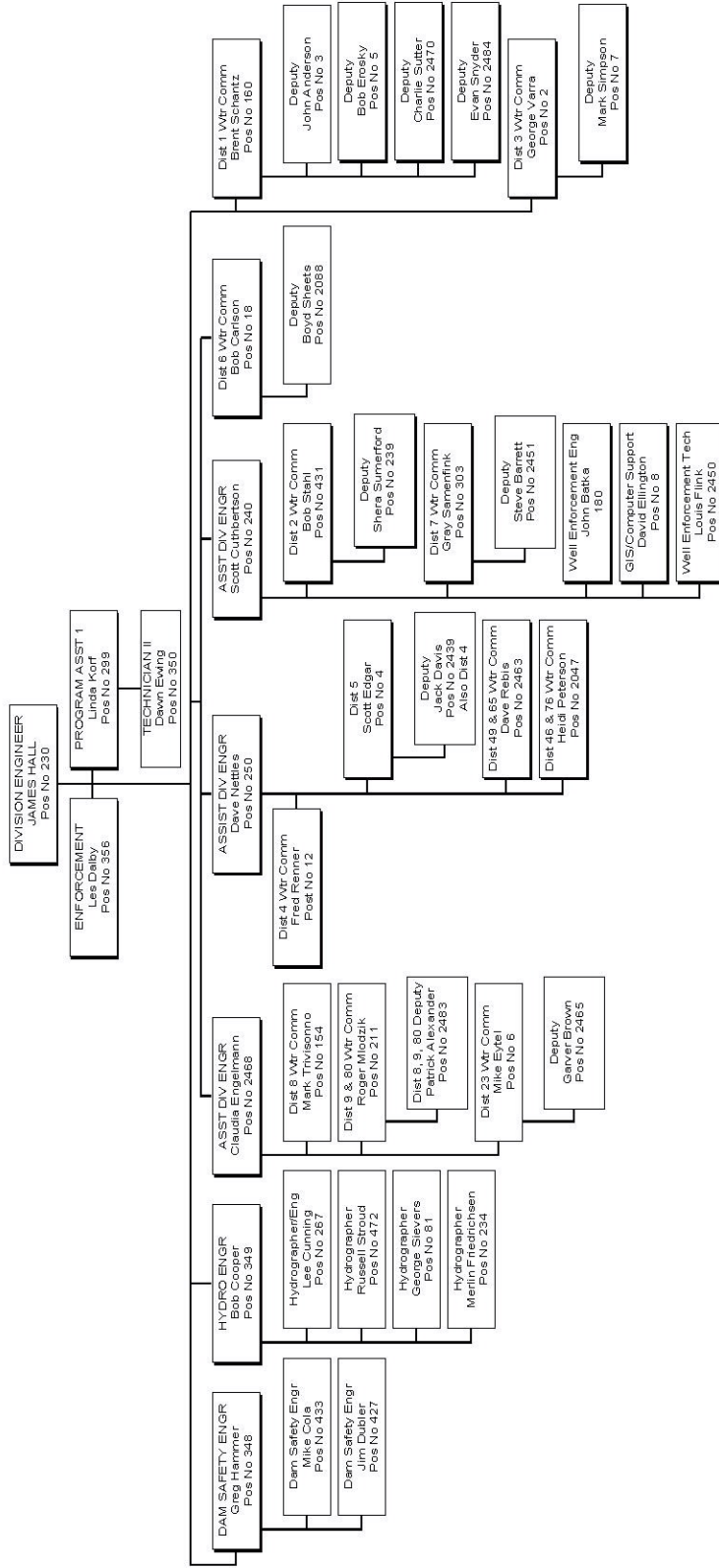
Dam Safety Engineers	3
Water Resource Engineers	8
Engineering/Physical Science Techs/Assistants (Includes 3 Hydrographers)	5
Program Asst 1 & Technician II	2
Full-Time Water Commissioners	19
Permanent Part-Time Water Commissioners	<u>5</u>
<b>Total Staff</b>	<b>42</b>

**Statistics**

Number of Well Permits	3,568
Number of Plans for Augmentation	847
Number of Dams routinely inspected	743
Number of Active Substitute Supply Plans	106
Number of Contacts to give Public Assistance	65,240+

# Organizational Flow Chart

## Division 1





**Augmentation Plan Accounting Protocol**  
Division of Water Resources

**Division One – Greeley**

This document addresses the accounting information and format that should be followed for water court approved augmentation plans. Decreed augmentation plan requirements take precedence in the event of a conflict between the requirements in the decree and this protocol.

1. The accounting must be done using software such as Excel or Access, preferably Excel. During the initial review of the accounting and/or when requested, the applicant will be required to submit the actual Excel file used to perform the accounting so that data relationships and formulas can be confirmed.
2. Accounting for wells that are decreed as alternate points of diversion to a surface water right must be done on a daily basis in order to substantiate when the well is in or out of priority. For the purposes of augmentation plan accounting only, the daily in priority alternate point well diversions may simply be shown as zero. The remaining out of priority daily diversions should then be used to determine the delayed depletions associated with the well operation.
3. Accounting for wells that are not alternate points of diversion to a surface water right may be done on either a daily or monthly basis. If the monthly basis is used, the volume of water diverted for the entire month should be prorated to the number of days in the month and shown as equal daily diversions.
4. Accounting reports must be submitted electronically to the division engineer at [Div1Accounting@state.co.us](mailto:Div1Accounting@state.co.us) within 30 days of the end of the month for which the accounting is being submitted.
5. Please use the following naming convention for all files submitted pursuant to item 4: "PlanName\_Month\_Year\_Version". As an example, the initial submission for the XYZ augmentation plan for July 2004 would be named "XYZ July 2004 v1.xls". If this accounting is then amended, the amended file submitted would be named "XYZ July 2004 v2.xls", etc. **Please put the name of the file in the subject line of the email.**
6. All diversion information for both wells and recharge structures must be reported using the WDID for the structure, at a minimum. Other information such as well name, permit number, etc. can also be included based on the reporter's preference as a cross check to the WDID **All wells must be either decreed by the Water Court or permitted by the Division of Water Resources.** Unregistered wells for which there is no decree cannot, in the opinion of the Division Engineer, be effectively administered because of the need to know the location, allowable diversion rate and use of the well; information that is only available from the decree or permitting process.
7. The accounting should have a single "**Contact Information**" sheet that shows the contact information for each well. This sheet should also contain the contact information of the person responsible for submitting the accounting.
8. The accounting should have a single table showing "**Past Pumping Depletions**" expected due to previous operations of all the wells covered by the plan, itemized by well.
9. All well diversions should be input into a single "**Pumping Information**" worksheet. The sheet should show the volume diverted from each well and the amount of that diversion made as an APOD on a daily basis. The resulting non-APOD diversion volume in the "**Pumping Information**" worksheet should be the source of pumping information for all other worksheets that use that data such as

- the depletion modeling input table, any summary of operations sheet, etc. The **“Pumping Information”** worksheet is the **ONLY** place new well diversion data is input into the accounting.
10. All **“Recharge Information”** input data should be entered on a single worksheet and broken down to show the resulting credit to each well.
  11. A single **“Reservoir Releases”** sheet should show the releases made and the credit attributable to each well. Data such as transit losses, reservoir share yield, etc. should be shown for the current month. The accounting must be able to adjust factors such as share yield and transit loss on a month-by-month basis and must not simply rely on the initial beginning of season yield estimate, etc.
  12. If there are other categories of replacement water used in the plan such as **“Fully Consumable Effluent”**, **“Changed Irrigation Right Credits”** **“Ditch Bypass Credits”**, **“Augmentation Wells”**, etc., each of these categories should have a single data input sheet that breaks the information down to show the credit due each well as a result of the subject replacement water. (In the specific case of the augmentation wells, the input volume would simply reference the **“Pumping Information”** sheet, which is to be the sole source of well diversion data.)
  13. A **“Summary Information”** sheet should show the depletions, associated credits and net impact on the river of each well for the subject month. Wells with depletions that impact the same location of the river may be grouped with accounting submitted for the entire group. For instance, accounting may be submitted on a farm by farm basis, etc., with the provision discussed above regarding alternate points of diversion wells.
  14. The accounting should contain any other sheet necessary to show how the input data are used to determine the depletions and recharge credits for each well, such as AWAS/SDF program input table and output table, etc.



**Recharge Protocol**  
Division of Water Resources

**Division One – Greeley**

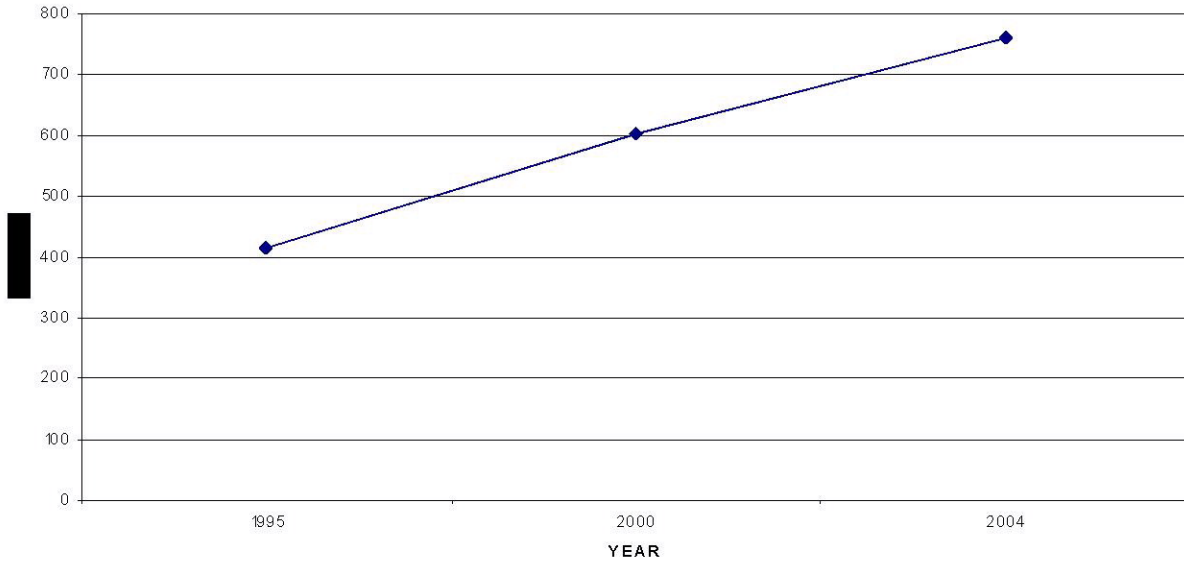
15. The purpose of a “recharge structure” as referenced in this document is to introduce water to the river alluvium that will result in accretions to a live stream. For the purposes of this document, a recharge structure does not include a well that is used to artificially recharge a Denver Basin bedrock aquifer. With that qualification, a recharge structure is defined as:
  - a. A section of ditch, the losses from which can be reasonably characterized by an average SDF value.
  - b. A pond or group of ponds that receive water from the same delivery location and can reasonably be assigned a single SDF value.
16. A written notification for each recharge structure must be provided to the water commissioner and division engineer. **The Division of Water Resources will not acknowledge any recharge activity conducted either prior to our knowledge of its existence or which cannot be corroborated with data by the water commissioner.** The notification must include:
  - a. the section, township and range of the structure (STR).
  - b. the distances of the structure from the section lines.
  - c. if the diversion point for the recharge structure is not located in the vicinity of the recharge site, then also provide the STR and distances from section lines of the metered diversion point.
  - d. for ditch structures, identify the location of the diversion structure. If the ditch is divided into more than one recharge reach, explain how the volume diverted will be allocated to the various sections.
  - e. the maximum water surface area of the structure.
17. Upon receiving written notification, the Division of Water Resources will assign the structure a WDID number. The WDID number is the identification number that will be used for the administration of the structure and must be included in all correspondence and accounting reports. **(Any structure specifically identified by STR and distances from section lines in a Water Court application for water rights or plan for augmentation will be considered to have met the written notification requirements. For structures that were conceptually included in a decreed plan for augmentation but were not physically constructed at the time of the decree, a written notification of the intent to construct the structure must be provided.)**
18. Any structure that intercepts groundwater must be permitted as a well and included in a plan for augmentation or substitute water supply plan approved by the State Engineer. The Division of Water Resources strongly recommends avoiding recharge structures that intercept groundwater, in order to simplify the accounting process.
19. The flow into **EVERY** recharge structure **MUST** be metered and equipped with a continuous flow recorder unless the water commissioner in conjunction with the division engineer determines adequate records may be kept without such equipment. If the recharge structure is designed to discharge water via a surface outlet, such discharge must also be metered and equipped with a continuous flow recorder. Unless provided an exemption from either the water commissioner or division engineer for this requirement, the water commissioner **MUST** approve the meter, recorder and installation and the installation must be completed



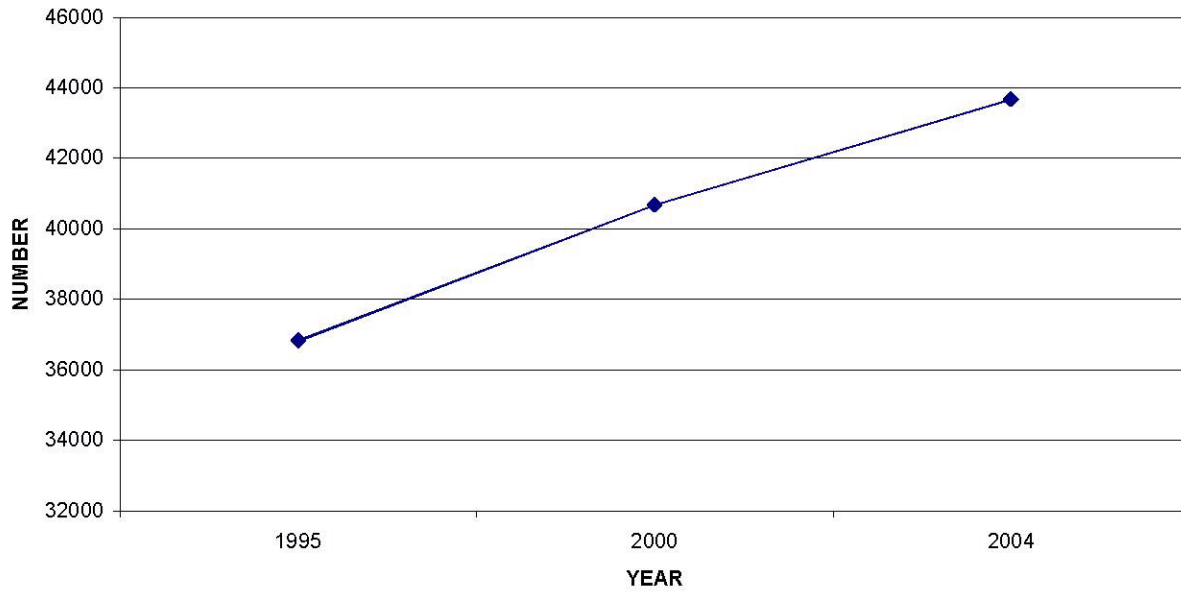
- BEFORE** the Division of Water Resources will acknowledge any recharge credit to the structure.
20. All recharge ponds must have a staff gauge installed such that the gauge registers the lowest water level in the pond. The staff gauge must be readable from a readily accessible location adjacent to the pond.
  21. All recharge areas must be maintained in such a way as to minimize consumptive use of the water by vegetation. **No recharge area may be used for the planting of crops during the same irrigation year that it is used as a recharge site without prior approval from the Water Commissioner or Division Engineer.**
  22. The amount of water recharged to the alluvial aquifer is to be determined by measuring the amount of water delivered to the recharge structure and subtracting:
    - a. the amount of water discharged from the recharge structure,
    - b. the amount of water lost to evaporation (see item 23, below),
    - c. the amount of water lost to consumptive use due to vegetation located within the recharge structure, and
    - d. the amount of water retained in the recharge structure that has not yet percolated into the ground.
  23. Net evaporative losses from the recharge structure must be subtracted from the volume of water delivered to the pond. Evaporative losses must be taken every day the pond has a visible water level. If the pond does not have a stage-surface area curve approved by the water commissioner, the maximum surface area of the pond must be used to determine the evaporative losses. Monthly loss factors prorated for the number of days the pond had a visible water level may be used as may real time evaporation data from NOAA or a local weather station. If the pond is not inspected on a routine basis through the month, no prorating of monthly factors will be allowed.
  24. The amount of accretions to the target stream will be determined using the amount of water recharged to the alluvial aquifer (as described in item 22, above) and lagging the recharge using the Glover equation, USGS SDF contour maps or other methodology approved in advance by the Division of Water Resources.
  25. Accounting must be performed on a daily basis with reports submitted monthly within 30 days of the end of the month for which the accounting is being made.

# WORKLOAD INCREASE CURVES

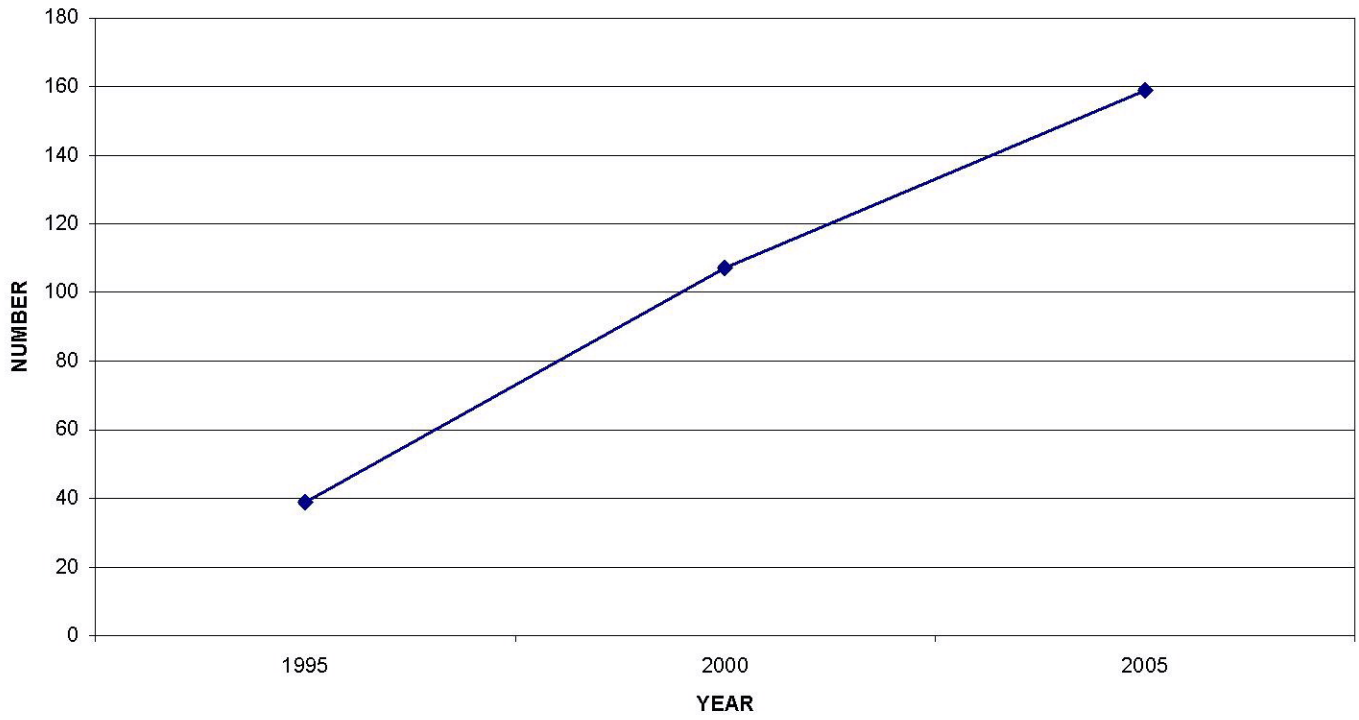
**DIVISION ONE**  
Decreed Plans of Augmentation



**DIVISION ONE**  
Water Rights



### DIVISION ONE MAINSTEM CALL CHANGES



### DIVISION ONE DAILY DIVERSION RECORDS

