



Division 1  
Annual Report

1999 Irrigation Water Year

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## CURRENT WATER YEAR

### Water Administration

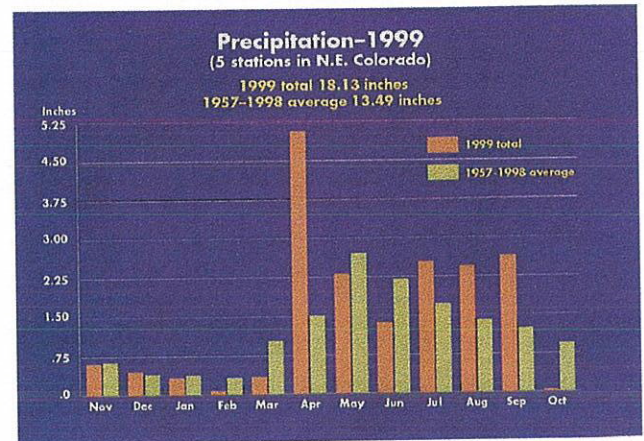
The overall water supply situation going into 1999 was excellent. Most reservoirs were at or near winter fill. There had been significant water diverted for recharge the previous two or three years because of the wet conditions and returns from this recharge also were expected to help the water supply situation in 1999. Snowpack during the beginning of the year was slightly less than average. This did not cause alarm as precipitation during the beginning of the year is not usually a significant percentage of the overall snowpack. The conditions tended to be drier in the southern mountains than in the northern mountains.

Water users and administrators did begin to be concerned about supplies because of the lack of precipitation in the basin during March, a month where there is usually significant precipitation. The overall precipitation during March was less than one-half of normal. These concerns were somewhat alleviated because reservoir storage was still high due to favorable conditions the previous year. In response to the dry conditions, a junior call was placed in March in District 1 to help assure the reservoirs on the plains would fill. This was a dramatic departure from the previous years where there was no concern about filling the reservoirs even before runoff began.

Going into the spring, it looked like it was going to be a dry year. As an example of this expectation, the Northern Colorado Water Conservancy District, which provides west slope water as a supplemental supply to much of the South Platte basin through the Colorado Big Thompson Project, set a quota of 80% for their project in early April. This quota is set for fairly dry years.

April turned out to be a very transitional month for the water supply outlook in the South Platte basin. The first half of April continued very dry with snowpack falling well below average throughout the Division. This low snowpack

and the dry conditions created concern that this would be a below average water year and that users who normally have an adequate supply would be short during a portion of the year. Beginning the last week of April, there were several major storms that provided significant amounts of rainfall on the plains and snowfall in the mountains. The precipitation continued for several days leaving above average snowpack levels throughout the basin and raising the stream flow level in the lower South Platte downstream of its confluence with the Big Thompson to flood stage. Precipitation in April averaged over 5 inches for stations on the plains in northeast Colorado compared to an average of approximately 1.5 inches of precipitation. The graph below shows the overall precipitation at 5 stations in Northeastern Colorado.



Because of the precipitation, the South Platte crested at over 22,500 cfs at the Kersey gage, above flood level. In addition, flooding also occurred along parts of the Poudre River and Big Thompson. The flooding damaged parts of



Greeley, Fort Collins, and Loveland and flooded low level farm ground and structures adjacent to the rivers.

The significant amount of precipitation toward the end of the April not only increased snowpack, but also bank storage along the South Platte basin. This bank storage helped to maintain flows during the summer. The snowpack, riverbank storage and existing reservoir storage removed significant concern that there would be below average flow in the South Platte basin creating shortfalls in supply to some users.

Because of the wet conditions, there were no calls during May downstream of Denver. Many years, there is a call in May as demand for irrigation increases prior to runoff. Spinney Mountain Reservoir filled in the early part of June. Spinney Mountain Reservoir is the last mainstem reservoir to fill and it only fills when there are significant water supplies in South Park.

The flow in the South Platte began to drop toward the end of June as snow runoff curtailed and the demand in the river increased for irrigation. Flows in the South Platte and its tributaries continued above average through out the basin during July. There was no call at all on the South Platte the first eight days of July, which is fairly unusual. The most senior call during the month was a Burlington bypass to the Western Canal with an 11-20-1885 date. This is a very junior call for July reflecting the excellent river conditions. Widespread rainstorms toward the end of the July removed the call completely.

The flow in the tributaries and mainstem continued at above average levels in the South Platte during August. This flow allowed all water rights on the South Platte to be filled without a call. This is very rare in August as usually many water users are depending upon storage to meet their demand in August. The only negative were some late season storms that damaged crops in some areas prior to their harvest and low crop prices which continue to hurt farming profitability.

With much higher than average flow on the mainstem and tributaries, there were also no calls downstream of Denver intake in September. Because of the continued excellent flow conditions, significant amounts of recharge occurred in September along the mainstem. In many years, recharge does not even start until the end of September because irrigation demand still exceeds river supply. During 1999, recharge was allowed most of the summer which will provide excellent augmentation supplies in 2000.

With the end of the irrigation season, diversions continued primarily for storage, recharge, and municipal purposes. Based on present above average flow conditions, above average end of season storage, and recharge that occurred, initial prospects for next year's water supply are excellent.

#### Dam Safety

The dam safety branch in Greeley is staffed with four engineers to perform periodic dam inspections. Under the current "1-2-6" program approximately 270 dams are to be inspected each year. All Class I dams are inspected annually, Class II dams inspected every other year, and Class III dams every six years. Last year 266 dams received periodic safety inspections. Another 101 site visits were conducted as part of follow-up activities either to assist the dam owner or to check on changing conditions or repairs. Construction oversight activities resulted in 18 construction inspections. Staff performed 18 outlet inspections using the SLED mounted camera device. The target date for having the outlets of all Class I and Class II dams inspected was December 1998, however continuing problems with camera equipment has hindered progress.

The hydrologic review of spillways is essentially complete for Class 1 and Class 2 dams. Due dates have arrived for completion of improvements for the more seriously inadequate dams, and staff is in the process of addressing this next phase for correcting spillway deficiencies. Plans to breach one Class

I dam (Leyden, WD 7) have been temporarily set aside pending design of an alternative to retain the dam as a flood control structure. Staff continues to perform design review activities as time permits.

In early May, steady and continued rainfall, nine inches in ten days, created flood conditions that eventually resulted in the failure of a non-jurisdictional dam on Crow Creek near Briggsdale. The tributary drainage basin for this dam extended into the mountains west of Cheyenne, Wyoming.



*Sinkhole As Exposed After Truck Drove Over It*

Construction of a stability berm for Woodland Park Dam was completed, and the existing storage restriction removed to allow the reservoir to fill. Prior to achieving a full storage condition, seepage appeared on the slope of the new berm. Increased monitoring and evaluation of this condition has continued while the lake has been kept at a lowered elevation.

At Elder Dam, water district 3, sinkholes developed on either side of the outlet conduit. Investigations found larger cavities along the outlet conduit. The owners are planning to replace the outlet for Elder, and other dams which were constructed in the same time frame using similar techniques.



*Inspection of Sinkhole After Opened Up By Backhoe*

In response to recommendations developed through a legislative audit, dam safety personnel have discontinued inspections of dams owned by the Corps of Engineers, the US

Bureau of Reclamation, and dams regulated by the Federal Energy Regulatory Commission(FERC). Due to some seepage concerns being studied by the USBR at Horsetooth Dam, Mike Cola has continued to remain involved in the analysis and inspection process at that structure.

### Hydrography

**W**ater Supply for the South Platte River and its tributaries for the 1999 water year has continued to be abundant. A comparison of historic average and 1999 total flows for the South Platte at Kersey and South Platte at Julesburg gives a good indication of the kind of year we had in 1999.

#### South Platte at Kersey:

Historic average flow (1976-1998)	910,000 AF.
1999 Water year flow	1,343,000 AF.

#### South Platte at Julesburg:

Historic average flow (1902-1998)	402300 AF.
1999 Water Year flow	1,004,000 AF.

High flows have continued to alter channel geometries. Our hydrographers have been kept very busy making bridge measurements and developing new rating tables. In the past 2 years, 32 new rating tables have been developed for state-operated open channel gages on all the major tributaries and along the main stem of the South Plate River to the Nebraska state line.

Our experience with flood level flows in late April and early May focused our thinking on ways to provide better information during these critical periods. Some the findings of this experience are as follows:

1. Extra visits we made to check gages were invaluable. We were able to fix operational problems—clogged inlets, recorder hang-ups, etc.— that sometimes accompany rapid rises in stage.

2. Auxiliary stilling wells attached to bridges at manometer gages were an excellent investment. When water reached a bridge well, we would switch reporting to our secondary satellite encoder and avoid the problems often seen using manometers to record high flows. We plan two more bridge stilling well installations in the future.
3. Canal gages with secondary reporting on the spill over the diversion structure were good for tracking high flows. Administrative gages such as Cache La Poudre River at Greeley proved to be less useful, due to instabilities in the stage-discharge relationship. A site with an artificial control, reporting stage-only, could give more useful flood information than an administrative gage where bridge measurements were made.
4. Hydrographer communications from the field allowed office engineers to respond more effectively to inquiries about flood conditions. As a result, hydrographers were issued digital cell phones to maintain coordination and communication during critical events.

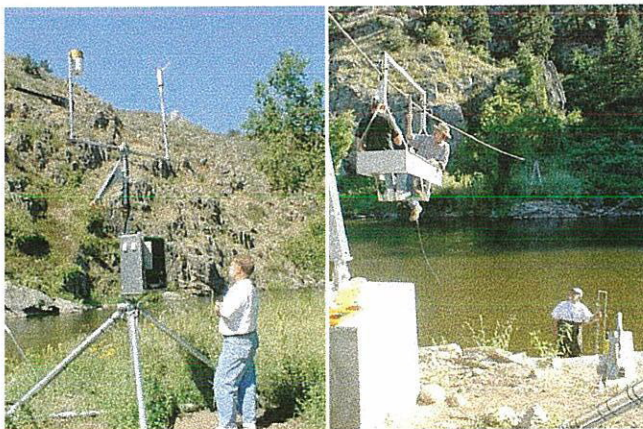
Stream flow data gathered at gaging stations is the basic information used by water administrators and water users to determine the available water supply within the division. The Satellite Monitoring System is currently in transition to an internet accessible database. A new "Water Talk" system is also being developed to allow the public and Water Commissioners to continue to access stream flow data by telephone. A new program for computation of hydrologic records is being developed at the same time.

Division One took a lead role in 1999 in cooperative efforts with the USGS. An agreement was reached with the USGS data chiefs' committee to discontinue USGS publication of 11 Division One records, including all transmountain records. In turn, Division One will publish (in the DWR "Stream Flow Data for Colorado") a special

"Transmountain Diversions Summary" page. This page which will provide a more complete accounting of transmountain data than was being presented by the USGS.

During July and September of 1999, Division One personnel assisted scientists from the USGS/HIF (Hydrologic Instrumentation Facility, located in Mississippi) who came to Colorado to test a portable gaging station on the Cache La Poudre River at the Canyon Mouth. The portable gage takes direct discharge measurements, based on velocity sensors and established stream cross sections. A Decatur surface velocity radar gun was tested hand-held from the cableway, and then mounted on a fixed platform. An Acoustic Doppler Current Meter was also installed in the streambed, along with a stage instrument. A 2-D wind direction and velocity meter was also used to provide data for characterizing and testing of the Decatur radar unit. Data is collected and transmitted using a relatively novel pager-activated Cellular Data Telemetry System allowing immediate remote access of site data at any time.

The testing will be conducted for an extended period of time to evaluate the radar's performance. Division One engineers were given access to the USGS internal web page to monitor progress of the experiments. The HIF and regional USGS web sites contain a wealth of information on current research and "Tips for Techs" notes geared specifically to hydrographic work.



*Portable Gaging Station Radar Gun Velocity Test*

The hydrographic branch currently includes 2 engineers, 3 full time technicians, and 2 hydrographer/deputy water commissioners who operate the gages they use to administer water rights during the irrigation season. Hydrographer-engineer Ted Anderson has also served as a Division 1 computer resource person while one of our office's engineering positions remains vacant.

#### *Involvement with the Community*

Division One personnel continue to attend and make presentations at Conservancy District Meetings and Ditch Company meetings and meetings of realtors, homeowners groups, schools and universities. Specifically, staff this year were involved in providing a class to Colorado Water Congress Members, gave presentations at three Board of Realtors seminars concerning water, provided several presentations at elementary schools, participated in a career development program at a local high school, taught a class for a course at UNC and provided a presentation to an Elder Hostel group, Division personnel continue to be actively involved in the South Platte Lower River Group and the Platte River Project group along with several other groups associated with Endangered Species Recovery Plan efforts for the South Platte. We met also with staff from Wyoming to discuss operation of the Sand Creek agreement. Individual water commissioners and other Division staff also continue to attend and participate in many water user organization annual meetings.

## ON-GOING PROJECTS

### *Big Thompson River and St. Vrain River Enforcement Program*

During 1999, Division One continued the major effort to locate illegal uses of wells and illegal surface water diversions. This effort has been focused at the Big Thompson River (District 4) from the western edge of the city

limits of Loveland upstream to the Eastern Boundary of Rocky Mountain National Park. This office also looked along the St. Vrain River (District 5) from the Town of Lyons to its headwaters and along the Left Hand Creek Drainage from its' confluence with St. Vrain Creek to its' headwaters.



In the Big Thompson drainage, many people have submitted change of ownership requests for their wells and have obtained forms to late register their historic uses of pre-1972 wells. Over 140 persons have joined a substitute supply plan call WAR that involves the use of CBT to replace water being diverted directly from the Big Thompson River. In addition, commercial water users and others have joined a substitute supply plan for the Big Thompson River that will replace depletions associated with illegal well usage. This plan developed by the Continental Water Bank will eventually be taken to water court. Many people have chosen to cease the watering of their lawns instead of augmenting for out-of-priority uses. We are watching potential violators closely and in the 1999 water year we only found one person who attempted to irrigate without joining any plan. We contacted that person and they ceased diverting water. During 2000, this office will issue cease and desist orders to any individuals who have not joined one of the plans and continue the illegal use of their wells or surface water diversions.

As a result of 1998-1999 efforts, the number of parties participating in the substitute supply plan that is operated by the Left Hand and St.

Vrain Water Conservancy District has increased to 140. This project has been getting positive results in eliminating illegal water usage. The water commissioner will continue monitoring water users who are illegally diverting water. This will primarily involve our following up on last year's contacts and issuing cease and desist orders if needed. It is planned that during 2000 the water commissioner will look downstream of Lyons for similar illegal water uses.

#### DWR MOU with DOW and Water Quality

A new statewide Memorandum of Understanding (MOU) was developed and signed in 1997. This MOU involves both exchanges and reservoir operations. An annual review of the MOU has occurred since the MOU was signed by all three agencies. It has worked well when we are given advance notice by reservoir owners of activities that may present a risk to the fishery or aquatic ecosystem. During the past year Strontia Reservoir operations to flush sediments occurred with advance notice to DOW in such a way that no negative impacts occurred.

#### Tamarack Development

Colorado's *Tamarack Plan* utilizes numerous managed groundwater recharge projects in the lower South Platte River in Colorado to develop water contributions to a Platte Basin ESA Program. These groundwater recharge projects involve the diversion of excess river flows by wells next to the river or by ditches to groundwater recharge basins. The seepage from these recharge basins returns through the groundwater aquifer to the river at a later time to augment river flows.

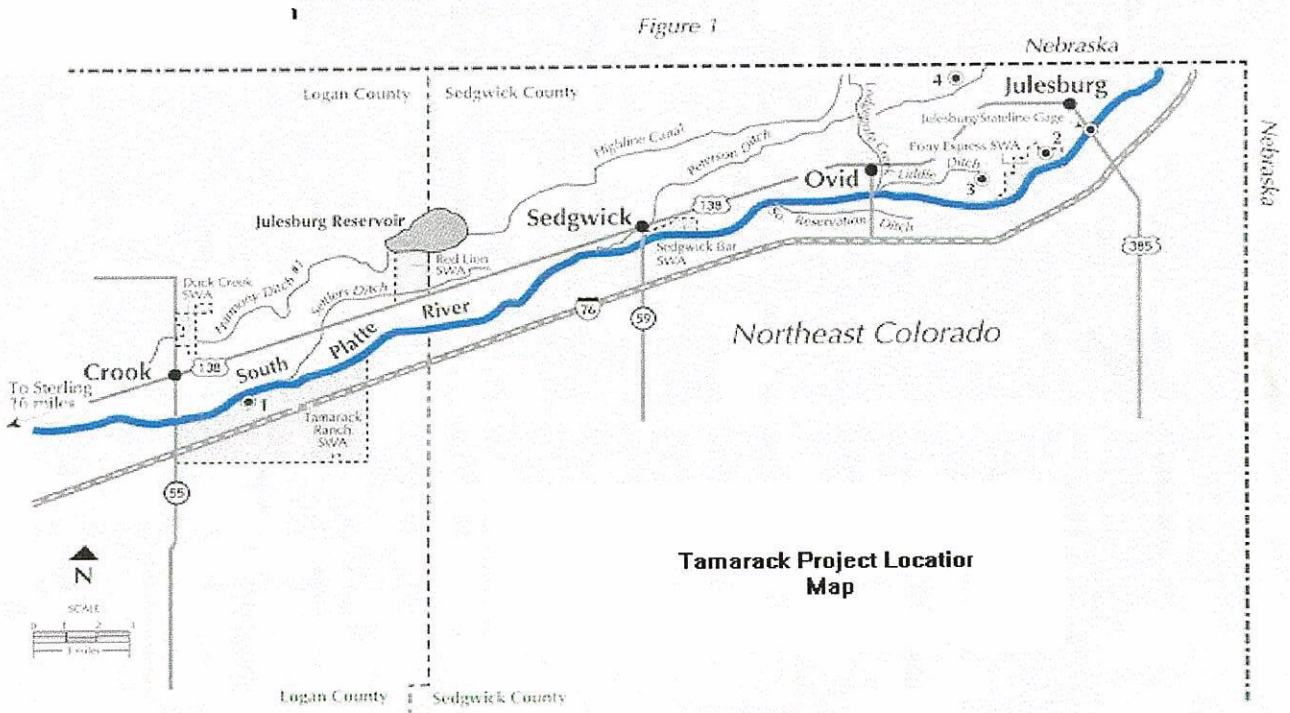
The lower South Platte River in Colorado is a gaining river system. The alluvial groundwater aquifer drains into the river channel because water levels in the aquifer are higher in elevation than river water levels. The increase in river flows as a result of the return



flows/accretions from the aquifer can be 5 to 10 c.f.s. per mile as one moves downstream. The aquifer is supplied mainly from the seepage and deep percolation from existing canals, reservoirs, irrigation, and groundwater recharge programs. The managed groundwater recharge projects of Colorado's *Tamarack Plan* will increase the accretions that are already occurring to the river.

Colorado's *Tamarack Plan* has three phases. Phase 1 as described in Tab 3A of the Cooperative Agreement states; "the *Tamarack Plan* is estimated to increase flows at the Julesburg Gage during the period of April through September by an average of approximately 10,000 acre-feet over the flows that would otherwise occur during that period". Phase 2 is the use of *Tamarack Plan* facilities

to re-regulate water to replace the future depletions of new water related activities as described in Colorado's Plan for Future Depletions (Tab 3B of the Cooperative Agreement). This re-regulation will shift net accretions to the stream resulting from future growth to periods of net depletions from future growth. Phase 3 is the expansion of the managed groundwater recharge operations and facilities to yield additional water at the Julesburg Gage during times of flow shortages in the critical habitat as part of the Water Conservation/Supply Action Plan. This analysis on the potential for expansion of Colorado's *Tamarack Plan* to provide a significant amount of water towards meeting the Water Conservation/Supply Action Plan goal of 60,000 to 80,000 acre-feet is ongoing and will be completed within the next few months.



Colorado's *Tamarack Plan* consists of multiple groundwater recharge projects located on both public and private lands. The public lands include Colorado Division of Wildlife's State Wildlife Areas (SWA). The Tamarack Ranch SWA, located 30 miles above the Colorado-Nebraska state line, has been the location of a groundwater recharge demonstration project since 1997. The Pony Express SWA just above the state line and the Red Lion SWA between the Tamarack Ranch SWA and the Pony Express SWA will also be future locations of recharge efforts. The projects on these public lands use wells next to the river as the supply for the recharge basins.

The projects on private lands involve agreements with private landowners along the river and with private ditch companies. Numerous private landowners in the 30 miles of river from Tamarack Ranch SWA to the state line have expressed interest in developing wells next to the river to pump to recharge basins similar to the projects on the public lands. Private ditch companies on the South Platte River in Colorado run their ditches before and after the irrigation season in order for the ditch seepage to recharge the aquifer. These ditches also supply water to recharge basins. The ditch recharge programs are used primarily to augment their shareholders' irrigation well depletions, but also to generate excess accretion credits that are not needed for well augmentation. This is especially true during February and March when additional water is needed in most years by a Platte Basin ESA Program because of water flow shortages in the critical habitat in central Nebraska. As part of Colorado's *Tamarack Plan*, Colorado will develop long-term agreements for excess credits with private ditch companies. Ditches for potential involvement in the *Tamarack Plan* include the Liddle, South Reservation, Peterson, North Sterling, South Platte, Lower Platte and Beaver, Upper Platte and Beaver, Bijou, Ft. Morgan, Pioneer, and Riverside. The locations of these ditches are from Greeley to Julesburg.

For the last three years, there has been one well constructed at the Tamarack Wildlife Area pumping to a recharge pond with a Stream Depletion Factor of 60 days with accretion credits leased to GASP and the Lower South Platte Water Conservancy District for well augmentation as allowed by an Substitute Supply Plan. Beginning in February 2000, it is expected that there will be three additional wells pumping to the same recharge pond. Up to five additional wells are planned in the next year. Extensive monitoring has also been installed to document the returns of water recharged at the site.

In addition to the wells being constructed at Tamarack for recharge purposes, a live stream section has been constructed between two of the Tamarack basins for raising and studying native South Platte minnow species of concern. This live stream will be fed by one of the wells at Tamarack pumped into three small supply ponds. The supply ponds have already been constructed. The supply ponds were constructed to assure a supply of water even if electricity is cut off temporarily at the site.

#### Colorado State University (South Platte Map)

**D**ivision One continued as a participant in the tools being developed by the Integrated Decision Support group (IDS) at Colorado State University. The Groundwater Appropriators of the South Platte (GASP), the Central Colorado Water Conservancy District (Central), the Lower South Platte Water Conservancy District (LSPWCD), the Northern Colorado Water Conservancy District (NCWCD), the South Platte Lower River group, the City of Greeley and Fort Collins and the Division of Water Resources (DWR) among others have contributed to and expect to be able to utilize these tools, and have access to data needed to better define depletions and replacements. Total money commitments through 1999 at this time by all parties are approximately \$100,000 for program development and \$78,000 for satellite imagery.

The information from this satellite imagery will be downloaded into a GIS system that can be read by Arc View. In addition, GIS layers showing fields irrigated by surface and ground water, cropping information, stream depletion factors, well locations, landowner property boundaries, bedrock elevations, water table elevations, surface elevations, and transmissivity will be created. Most of the layers have already been completed including field identification for the area covered by the Northern Colorado Water Conservancy District. Crop identification for this area is in process.

The computer tools being developed will allow this GIS information to be accessed simply, allow for color mapping, and have zooming capabilities so that field information can readily be checked and displayed. The satellite imagery has already been an invaluable tool in the well identification program being carried out by Division One.

A consumptive use (CU) model is also being developed as a part of the system. The CU model will allow the estimate of consumptive use for individual farms, ditch systems or whole drainage basins. Based on surface supplies, and assuming that a full water supply is provided, the amount of groundwater needed to meet potential CU can then be calculated. Alternatively, well pumping CU can be determined through pumping records or power records in combination with well energy/discharge coefficients. The tool will allow this data to be downloaded into either an SDF or Visual Modflow Model to determine stream depletions from well pumping. This information can then be verified by use of a Point Flow Model. It is expected that the final version of the CU model will be complete in the middle of 2000.

A user-friendly modular SDF tool has also been developed to estimate stream depletions using well pumping CU or stream accretions due to recharge. This tool can be used in conjunction with the consumptive use model or as an independent program taking information from other sources.

### Well Location Program

For the third year in a row, the Division was active in hiring college students on staff as interns to help with our well location program, both in collecting field information and in collecting background information on decrees, permits, etc... prior to and after going to the field. In 1999, we hired three college students using money available from the Ground Water Management Fund and reallocation of part time staffing authorities. In addition, deputy commissioners were brought into the Greeley office during the past winter, to help with collecting background information and to input data collected during the previous summer. This allows Division One to pursue the well location program more aggressively.



This project began in former Water District No. 2 near the City of Brighton during the 1997 irrigation season. In addition to continued efforts in District 2, the program expanded to include former Water District 64 and District 65 during 1998. Currently 1,050 wells in District 2, 690 wells in District 64 and 70 wells in District 65 have been located to a five-meter accuracy level using the GPS units since this program began. We expect to continue in an organized manner on a section by section basis until we have located all wells within the Division. It is currently projected that the completion of the entire project will take another thirteen years given that there

are approximately 9,500 non-exempt wells in the Division.

Our activities in Districts 2 identified 62 wells that were not being augmented at the time of inspection. Since then most users have been able to get their wells in a plan for augmentation or substitute supply plan. We only have 12 people remaining who have not been added to an existing plan for augmentation or substitute supply plan.



There are approximately 350 to 400 wells which we will place on the upcoming abandonment list. We found 100 wells that need to be capped properly. In addition, many wells have been found to be incorrectly located. The water commissioners and our office are contacting the well owners. We have sent out letters to the well owners, who are found to be pumping wells illegally and will issue Cease and Desist letters to those who do not provide augmentation.

In District 65, we also used GPS equipment to locate Republican River Compact wells and tagged the wells that were located. We plan to finish the compact well location effort in District 65 during 2000.

#### New Gravel Pit Lining Criteria

In August 1999, new gravel pit lining criteria were issued by the State Engineer's Office. These new criteria were issued primarily in

response to concerns expressed by the cities of Denver and Thornton that the previous criteria were too stringent and inflexible. After review of the previous criteria and the physical situation that exists along the South Platte River from the Denver Metro area downstream to Greeley, the criteria were modified. The two main modifications were to include a leakage allowance for the bottom of the pit and to incorporate a performance standard in addition to the design standard. The new criteria also specifically stated a number of lining testing and operational procedures that had been adopted in Division One over the last ten years, but not officially recorded. The current criteria can be found on the Division of Water Resources web site under the Ground Water icon and Substitute Supply Plans for Gravel Pits tab. The Lining Criteria are at the end of the text for this section.

#### Abandonment Procedures Underway

The Division foresees a major effort in the coming year to develop a decennial abandonment list for the Division as required by statute. During the winter and spring of 2000, our water commissioners will identify water rights that have not been used in the last ten years for the inclusion on the abandonment list. The Division list must be complete by July 1, 2000. After that date, the Division Engineer will notify owners on the list. The next eighteen months will then be used to respond to users who protest the list to Water Resources. The Division will then file the final list with the water court by December 31, 2001. By statute, the water court will make final decisions concerning the abandonment of water rights. Division One's abandonment timetable is attached for reference at the end of this document.

As discussed previously, Division personnel have discovered through our well location program approximately 350-400 decreed wells where the well no longer physically exists or the well no longer is being used and is not

augmented. All of these wells will be included in the abandonment list. It will require a major effort to obtain all the information necessary to document the potential abandonment of these wells

## ON-GOING ISSUES OR OPERATIONS

### Platte River Endangered Species Partnership

The whooping crane, piping plover, and interior least tern, which are listed as threatened or endangered under the federal ESA, use the Central Platte River Valley in Nebraska. The pallid sturgeon, which occurs in the Lower Platte River between its confluence with the Elkhorn and its confluence with the Missouri River, is also listed as endangered. Together, these four species are the "target species" for the conservation partnership.

A Cooperative Agreement, signed by the three states and Interior, guides this effort and describes the proposed Program. A Governance Committee with members from the three states, water users, environmental groups, and two federal agencies continues to meet to implement the Cooperative Agreement.

An evaluation is being conducted of the impacts of the proposed Program and a range of water conservation and water supply alternatives, as required under the National Environmental Policy Act (NEPA). The parties intend that a final Program will be selected and they will enter into an agreement for its implementation.

The signatories to the Cooperative Agreement believe that the best approach to addressing the Endangered Species Act issues in the Central Platte region is a basinwide, cooperative effort to improve and maintain habitat for the target species. The alternative to a basinwide approach would be for each

water project to undergo individual review and lengthy proceedings to develop separate measures to help listed species. The signatories believe that a basinwide, cooperative approach will be more effective, efficient, equitable, and provide greater certainty for water users regarding compliance with the ESA.

### Proposed Plan

The first phase of the proposed Program (10-13 years) would:

1. Reduce shortages to the current target flows by an average of 130,000 to 150,000 acre-feet per year. The proposed Program would:

- Restore the original storage capacity of Pathfinder Reservoir in Wyoming.

- Establish an environmental water account in Lake McConaughy in Nebraska.

- Develop a groundwater recharge and river reregulation project near Tamarack State Wildlife Area in Colorado.

These three actions are expected to reduce shortages by approximately 70,000 acre-feet of water. A basinwide study will look for ways to provide an additional 60,000-acre-foot reduction in flow shortages through water conservation and water supply options.

2. Protect or restore (through acquisition, lease, or easement,) 10,000 acres of habitat in the Central Platte River area between Lexington and Chapman, Nebraska. The Nebraska Public Power District's Cottonwood Ranch between Overton and Elm Creek (2,650 acres) will contribute to that goal.

In later phases of the proposed Program, the holdings of the Platte River Whooping Crane Maintenance Trust, the Nebraska Game and Parks Commission, the Nature Conservancy, and the Audubon Society, totaling approximately 9,000 acres of habitat, will be

included toward the long-term goal of 29,000 acres.

All water conservation, habitat management, leases, easements, or acquisition of lands to meet these goals will be undertaken only with willing sellers and participants.

Progress made under this initial phase of the proposed Program will be closely monitored. The cooperating entities will evaluate the results of the first phase and define any subsequent approaches and actions needed to meet the overall goals.

### **Current Activities**

**D**ick Stenzel serves on the Water Management Committee which meets regularly. The committee has the responsibility to oversee the basin wide study that was completed by the consultant Boyle Engineering during 1999. The consultant evaluated water conservation/water supply alternatives that will provide at least 60,000 acre feet needed to meet flow shortages at the habitat area. In addition the Water Management Committee has the responsibility to establish a tracking and accounting system that will determine the depletion/ accretion impacts for the three water projects proposed by each cooperating state, new water related activities, and the water conservation/ supply projects.

During the past year, a Water Action Committee was created which required members of the Water Action Committee to attend their meetings as support staff. In addition to these two committee meetings a group of South Platte Water users also meet monthly to discuss and provide guidance to state representatives to the committee members and Governance Committee members.

### *Republican River Compact*

**D**uring the past year, Kansas continued pursuing its Supreme Court case against Nebraska for violating the Compact. Special Master, Vincent L. McKusick, has been assigned to hear the case. The Special master has ruled on Motions to Dismiss the Case by Nebraska that "the Compact restricts groundwater consumption to whatever extent it depletes stream flow in the Republican River Basin." Colorado was not mentioned in the original litigation, however, we did submit briefs seeking a ruling that the Compact does not restrict the consumption of Table-land or Ogallala groundwater even if the effect of that consumption is to deplete stream flow in the Basin. Colorado argued that "given the desire for certainty and the complexity of quantifying the hydraulic connection between Ogallala pumping and stream flow depletion, the drafters intended to exclude Ogallala groundwater pumping from the Compact's allocation restrictions." The Special Master responded by stating " If the drafters were in fact concerned about the difficulty of quantifying the effect of one form of depletion (i.e., table-land groundwater pumping) they could very easily have drafted an exception to the definition of virgin water supply. They did not do so. The absence of any exception shows that the drafter's true concern was to take into account any form of depletion – whether by alluvial or table-land pumping or otherwise." We will continue to participate in the case since it has significant impacts to Colorado.

### Prebles Meadow Jumping Mouse



The Preble's meadow jumping mouse, a small rodent in the family Zapodidae, is known to occur only in eastern Colorado and southeastern Wyoming. It lives primarily in heavily vegetated riparian habitats and immediately adjacent upland habitats. Habitat loss and degradation caused by agricultural, residential, commercial, and industrial development have resulted in concern over its continued existence.

On May 13, 1998, the Fish and Wildlife Service (Service) listed the Preble's meadow jumping mouse as a threatened species under the Endangered Species Act. At the time the Preble's was listed, a special rule for the conservation of the Preble's was not promulgated; and therefore, virtually all of the restrictions of the Endangered Species Act became applicable to the species. On December 3, 1998, the Service proposed a special rule under 4(d) of the Act to establish standards for the conservation of the Preble's for 3 years. This rule is expected to become final in the spring of 2000. The Rule establishes mouse protection areas (MPA's). If a mouse is discovered the MPA is one mile upstream and one mile downstream as well as 300 feet from the streams center to each side.

Currently, Counties are taking the lead in developing habitat conservation plans for the Preble's. The draft rule was amended to allow for historic ditch maintenance for 3 years while habitat conservation plans are being

developed for the mouse. Prior to finalization of the 4(d) rule, ditch maintenance is presently allowed under the direction of a Guidance Letter issued by the Service.

## COURT DECISIONS

### AURORA/SOUTH PARK

The application by the City of Aurora and Park County Sportsmen's Ranch (PCSR) for nontributary water rights (96CW13 and 96CW15), underground recharge and storage rights, and exchanges in the South Park area (Case No. 96CW15) continues to be clarified as the three applications make their way through the system. The area involved stretches from Michigan Hill to southeast of the Town of Como. The Supreme Court decision on the applicant's nontributary water rights in the Laramie-Fox Hills aquifer and preparation for the 5 week trial on the underground recharge and storage rights, and exchanges set for July and August in Fairplay occupied most of the last year.

On October 5, 1999 the Supreme Court affirmed the Water Court's finding that the Senate Bill 5 assumptions were only applicable to the Denver Basin and thus were not applicable to the Laramie-Fox Hills aquifer in South Park. The Supreme Court did reverse the Water Court's finding that PCSR must replace 100% of its out-of-priority withdrawals. The Supreme Court found that PCSR could pursue water rights in the Laramie-Fox Hills aquifer beneath its land under the prior appropriation doctrine, including replacing of out-of-priority depletions to prevent material injury to senior water rights.

The 900 to 1,000 exempt type well water right applications filed by the local residents in response to the Aurora filing continue to move slowly through Water Court. The Division One Court has issued decrees in approximately 10% of these cases for exempt wells. These decrees generally included a specific

paragraph indicating that the well is exempt from administration as long as the uses are within those specified in the decree and on the well permit.

### FRICO V. GOLDEN

The Supreme Court issued a decision for this case on March 29, 1999 very favorable to Golden. The central issue in this case was a claim by most of the larger municipal, industrial and agricultural users on Clear Creek (The Plaintiffs) that the City of Golden had implied volumetric limitations within two early 1960's change of water right decrees. The Supreme Court found that the Water Court was correct in finding that there were not implied volumetric limitations within the previous change cases and in not imposing specific volumetric limitations to those cases now. The Supreme Court also found the Water Court was correct in not finding expanded use of the changed rights by their conversion from peaking rights to base flow rights. The Supreme Court did remand to the Water Court the issue of Golden's possible expanded use of the changed rights by expanding the acreage of lawn irrigation by the changed rights. The Water Court has not issued any ruling on the lawn irrigation expansion yet.

The history of this case is that in 1961 and 1964 Golden changed a portion of the number 12 priority on Clear Creek from irrigation to municipal uses. Golden also appeared as an objector at a 1993 trial to change the remainder of the priority 12 water to municipal purposes. The Plaintiffs felt that Golden's position at the 1993 trial was inconsistent with the 1960's decrees; that the 1960's decrees contained implied volumetric limitations; and that Golden had expanded the use of this water to their injury. Of note is that the 1961 change case was tried and reversed on appeal to the Supreme Court in **Mannon v. Farmer's Highline Canal and Reservoir Co.**, then settled via a consent decree.

In the 1960's change cases, the historic use of the water right was examined and certain limitations were imposed on Golden. These limitations included abandoning part of the water right to both the stream and the historic irrigation ditch, continuing to pay part of the historic irrigation ditch maintenance costs, drying up the historically irrigated lands, and basically subordinating to certain water rights owned by the objectors in the original case.

### DENVER EXCHANGES

This case involves Denver's attempt to maintain diligence and make absolute exchanges of water decreed to Denver Water (96CW145). The primary objectors in this case were the City of Thornton and Farmer's Irrigation Company (FRICO). The State and Division Engineers officially entered in the case in August, 1998. FRICO and Thornton's primary issue is whether the substitute supply for the exchange from Bi-City waste treatment plant upstream to Denver structures is adequate. FRICO and Thornton divert water through the Burlington ditch, a ditch diversion structure located downstream of the Bi-City outfall. Thus, any exchange from Bi-City impacts the quality of water for Thornton and FRICO. FRICO reached a settlement agreement with Denver prior to trial.

In addition to the water quality issues, Thornton has also raised several issues concerning the administration of exchanges by Denver. Issues include whether the recent lease of the Farmers and Gardener's Ditch for a power plant constitutes an expansion of use; whether the Division is appropriately accounting for and administering exchanges from Chatfield Reservoir; and whether Denver Water is inappropriately reusing water from the William's Fork basin diverted to the South Platte River through the Roberts Tunnel via an exchange. Denver has stipulated that it inappropriately has been leasing the Farmers and Gardener's ditch for the power plant and has stopped this practice.



Trial began on October 18, 1999. In 1999, there were 36 days of trial. Dick Stenzel, Division Engineer, John Lochhead, Assistant Division Engineer, and Les Dalby, Engineering Technician responsible for Chatfield Reservoir have all testified in the Case. It appears that there will be an additional four weeks of trial in the year 2000. The final dates set by the court are in December, 2000. Thus a decision in this case is not expected until 2001. We expect that one or both of the parties will appeal whatever the Water Court Judge decides to the Supreme Court. Of note, the Water Court has already ruled that the water quality of a substitute supply from a waste treatment plant for an exchange is adequate if it meets Water Quality Control Commission permit requirements in situations where there is not a challenge to the quality by a user.

## **PERSONNEL/WORKLOAD ISSUES**

### Well Administration Activities

In addition to the activities previously discussed under the Well Location Program and the Big Thompson and St. Vrain River Well Administration sections, the Water Commissioners have continued to spot check water well construction. We continue to see the number of field inspections required for both registrations of pre-1972 exempt type wells and replacements for non-exempt wells increasing. This is the result of both growth along the front range and many of these wells reaching the end of the 20 to 30 year working life generally expected of water wells.

### Well Location Program

In 1999, we hired three college students using money available from the Ground Water Management Fund and reallocation of part time staffing authorities. In addition, deputy commissioners were brought into the

Greeley office during the past winter, to help with collecting background information and to input data collected during the previous summer.

### Personnel Changes

The retirement of Ken Timmerman as District 8 Water Commissioner (Plum Creek, Cherry Creek, and South Platte in the Metro area) created the need for reassigning personnel within the Division. Denise Miller, formerly the commissioner for District 23 and recently assigned to our Greeley office took Ken's position as lead commissioner for District 8. To assist Denise, Mark Simpson was named as the Deputy Commissioner for this area. Mark also is working as the deputy commissioner for Roger Mlodzik in District 9 and 80 (Bear Creek and North Fork of South Platte). Mark replaces Eric Thoman as the deputy in these areas as Eric took a job with Water Resources in our Denver office. When not helping Denise or Roger, Mark will be working out of the Greeley office to help with the well location program, development of the abandonment list and enforcement activities.

Justin Perkins was also hired as the permanent part time deputy to Gray Samenfink in District 7 (Clear Creek). Justin had previously been filling this role on a temporary basis.

### Dam Safety

The dam safety engineers in Division One continue to inspect dams on a 1-2-6 year frequency. Outlet inspections are conducted every ten years, although equipment failure has continued to delay completion of the initial cycle.

The owners of reservoirs are making periodic updates to Emergency Preparedness Plans, to these plans. Hydrologic reviews have been completed for all but four Class 2 dams. These reviews were completed in 1999.

## Administration

The major impact stemming from growth in the South Platte Basin has had significant impacts on water resource administration. One area where administration continues to be most affected has been in the complexity of new decrees and plans for augmentation. These items have resulted in increased mileage and overtime hours for water commissioners and staff. Since most water commissioners are already overtaxed for time, Division One assigned an additional 3/4 of an FTE as an assistant water commissioner to former Water District 7 (Clear Creek) and another 3/4 of an FTE was assigned to be an assistant water commissioner for the combined former Water Districts 2, 8 & 80 to assist the lead water commissioners in these districts. At a later date, work load will eventually have to be added to assist the northern region of the front range to aid in the administration of complex decrees, such as Thornton's change case, Ft Collins change case and other decrees of Greeley, Loveland, and Longmont. Another area where increased workload has occurred is in District 64 as a result of new recharge projects and compact administration. Division One has continued its intern program during the summer to assist the water commissioner in former Water Districts 3.

## Training Program

This year our training program has been busy trying to meet the needs of our staff. We sent out a questionnaire that addressed what our staff would like to see offered in our training program. We ended up with a list of numerous topics and interests that ranged from computer courses to water rights issues to self improvement topics such as time management. We made an attempt to address the ones that had a lot of interest and that pertained to helping our staff to make their jobs easier.

We started out the year by offering a basic Word class that answered simple questions that sometimes people are embarrassed to ask or haven't had time to find out easier ways to perform a certain function. Along with that training, we alternated the day with a well permitting class that ended with a question and answer session for those questions that never seem to get asked or clarified. We next offered a session on how to code our River Calls and then a question and answer session in the afternoon on water issues and administration with the Division and Assistant Division Engineers. Our next session was an introductory class on GIS/GPS mapping skills that ended with the class going out in the field to GPS some locations.

In the summer months we did more outdoor type training. In July, we had a field trip on the East end of the Colorado Big Thompson Project for those employees who had never seen the project facilities. We then conducted a tour of the "Upper Poudre" that started at the Canyon Mouth of the Cache La Poudre and then went on to Chambers Lake and Barnes Meadows Reservoirs, Cameron Pass and Michigan Ditches and ended at Joe Wright Reservoir. We ended the summer tours with one to Colorado State University's Water Lab.

In October, along with our Fall Meeting, we had a session on abandonment issues. We were lucky enough to have Steve Sims, Ken Knox and Hal Simpson at our meeting to answer questions on our upcoming abandonment issues. Once we started to address the abandonment issues, we felt that we needed to have even more training on what Water Resources is looking for when identifying a structure that may be abandoned. In December we had an additional training session for our staff with the Division and Assistant Engineers.



We started out the beginning of this year's training program with a session on wetlands, endangered species and what permits are required by the Army Corps of Engineers that was conducted by Terry McKee. In the afternoon of the same day, we offered a session on general diversion record preparation that included questions on coding. We have had a switch in personnel with new people and commissioners changing districts, so we felt this was an important session. This is the first year that we have used our training funds for in-house type training. We feel that our training program has been successful and has covered a lot of different topics for our staff to help make their jobs easier and function more efficiently.

#### *Innovative Administration Processes*

**M**any steps Division 1 has undertaken during the last few years have been in an effort to take advantage of technological advances and other opportunities for innovative administration. These ideas also respond to DWR's vision as enunciated among other places in Long Range Goal 4.3.1. Division One has emphasized innovative administration throughout the text of this report. Specifically, we would refer you to the text concerning the South Platte MAP, the well location program, Platte River Endangered Species Partnership, the Division One Training Program, and restructuring of

personnel assignments. All of these projects revolve around using either improved technology, better communication or cooperation with the water users.

During 2000, we plan to develop Water Commissioner notebooks for District 2. The notebook would provide detailed information of the District's key structures. The type of information provided would include a map that shows the location of the diversion structure and measuring device and how to get to each of them. In addition, the map would show the GPS location of the structures and also a photograph of each. We would also attach from hydrobase the water rights that are associated with the diversion structure and contact person. It is believed that this information would be invaluable to future Water Commissioners. This notebook will be the prototype for notebooks for other Water Commissioners.

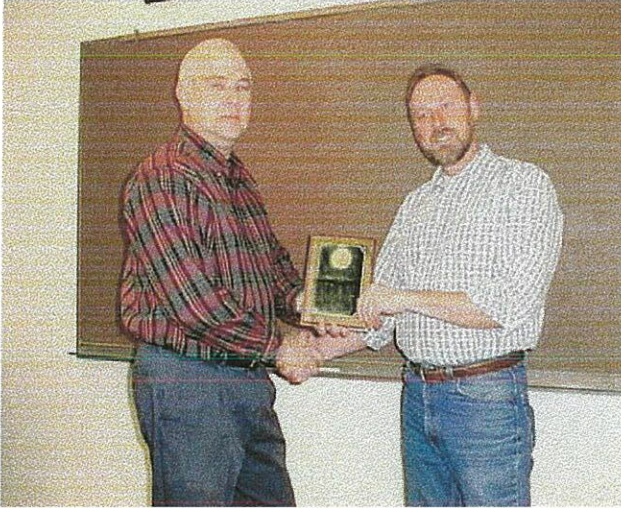
A similar notebook is envisioned for each of our gaging stations. It would include a USGS type description for each gaging station and the description of the station measuring devices, a map showing the GPS location and how to get to the gage. During the past year a concerted effort was made to collect photographs at gaging sites which will be a part of the notebooks.

We would ultimately envision making this information available to our office staff, so that those unfamiliar with any of the structures would be able to locate them and have the information available to them when they are working on issues related to the structures.

Employee Recognition

**Water Commissioner of the Year**

Bob Stahl



**B**ob is involved with the administration along the South Platte River. He always is willing to assist the water users in his District to find solutions for the water problems they may have. Many of his water users state they believe Bob does an outstanding job. They appreciate both his knowledge and attitude and they very seldom question his administrative decisions. Bob has actively pursued stopping expanded use in his District and when possible he has helped the individuals with illegal uses come up with substitute supply plans to make them legal.

## Abandonment List Timetable

- 3-15-00** Water Commissioners submit lists of water rights to be considered for list along with documentation (except for photographs and ownership information). The list should be in priority order.
- 4-1-00** Division completes review of proposed abandoned water rights making final decision as to those to put on the abandonment list.
- 6-1-00** Finish check on ownership by Water Commissioners.
- 6-1-00** Photographs due from Water Commissioners for structures to be put on abandonment list.
- 7-1-00** *Official Publication of Abandonment List by Denver office.*
- 7-1-00** Begin mailing of list to water right owners.
- 7-1-00** Publication of abandonment list and official notices in county newspapers for four weeks.
- 7-31-00** Mailing must be complete (Section 37-92-401 (2)(b) CRS).
- 7-1-01** Last day to protest abandonment list to DWR (Section 37-92-401 (3) CRS)
- 12-31-01** Division Engineer finalizes list and files with the water court (Section 37-92-401 (4)(c) CRS).
- 1-31-02** Water Court publishes the final list in the resume (Section 37-92-401 (4)(d) CRS).
- 6-30-02** Deadline for filing protests to the abandonment list with the court (Section 37-92-401 (5) CRS).

## Runoff Forecast

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

RESERVOIR	USABLE CAPACITY	USABLE STORAGE		AVERAGE
		THIS YEAR	LAST YEAR	
ANTERO	20.0	20.0	20.0	15.0
BARR LAKE	32.0	23.8	23.4	22.6
BLACK HOLLOW	8.0	3.5	3.0	4.0
BOYD LAKE	49.0	43.0	37.1	33.7
CACHE LA POUFRE	10.0	7.0	7.0	7.2
CARTER	108.9	85.0	54.2	81.6
CHAMBERS LAKE	9.0	5.5	5.0	3.0
CHEESMAN	79.0	60.5	46.7	56.0
COBB LAKE	34.0	17.5	15.0	13.9
ELEVEN MILE	97.8	99.9	99.7	91.0
EMPIRE	38.0	24.5	22.3	22.8
FOSSIL CREEK	12.0	6.0	6.5	6.5
GROSS	41.8	36.5	27.0	26.4
HALLIGAN	6.4	6.4	6.0	3.8
HORSECREEK	16.0	12.5	12.5	12.1
HORSETOOTH	149.7	108.1	75.7	89.0
JACKSON	35.0	19.4	19.3	28.8
JULESBURG	28.0	15.0	16.4	19.9
LAKE LOVELAND	14.0	10.8	11.8	8.8
LONE TREE	9.0	7.8	8.8	6.0
MARIANO	6.0	4.6	5.3	4.5
MARSHALL	10.0	7.6	8.4	4.1
MARSTON	13.0	8.3	10.5	7.0
MILTON	24.0	18.7	15.7	13.8
POINT OF ROCKS	70.0	66.3	47.3	55.0
PREWITT	33.0	14.4	22.4	17.4
RIVERSIDE	63.1	45.0	36.2	40.1
SPINNEY MOUNTAIN	48.7	38.0	26.8	34.6
STANDLEY	42.0	40.0	37.7	25.4
TERRY LAKE	8.0	5.5	5.5	5.1
UNION	13.0	11.9	10.9	10.5
WINDSOR	19.0	12.0	12.5	10.3

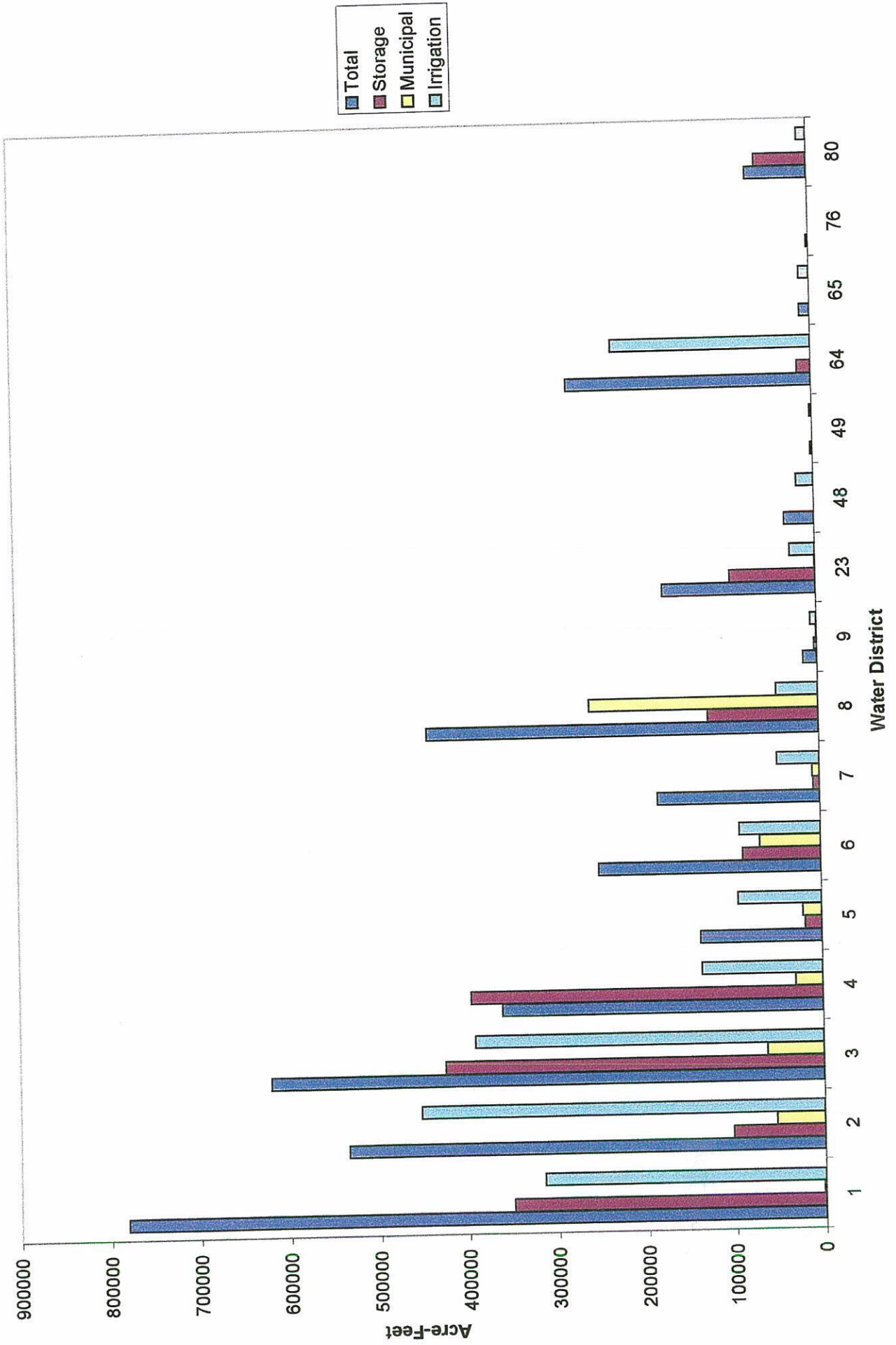
Information taken from Colorado Basin Outlook Report, February 1, 2000

### SOUTH PLATTE RIVER BASIN WATER SNOWPACK

WATERSHED	NUMBER OF DATA SITES	THIS YEAR AS % OF	
		LAST YEAR	AVERAGE
BIG THOMPSON BASIN	6	80	80
BOULDER CREEK BASIN	5	119	89
CACHE LA POUFRE BASIN	8	81	81
CLEAR CREEK BASIN	4	102	82
SAINT VRAIN BASIN	3	98	91
UPPER SOUTH PLATTE BASIN	17	110	82

\*Information taken from Colorado Basin Outlook Report, February 1, 2000.

**DIVISION 1  
1999 Diversions**



**1999 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS**  
 (November 1998 - October 1999)

WD	ID	NAME	RECIPIENT				10 YEAR AVG				CURRENT YEAR			SOURCE			
			STREAM	AF	DAYS	WD	AF	DAYS	WD	AF	DAYS	WD	ID	WD	ID	WD	ID
3	4604	WILSON SUPPLY DITCH	CACHE LA POUVRE RIVER	1,615	41	48	1,960	69	48	4604							SAND & DEADMAN CR.
3	4608	DEADMAN DITCH	CACHE LA POUVRE RIVER	367	20	48	131	22	48	4608							DEADMAN CREEK
3	4606	BOB CREEK DITCH	CACHE LA POUVRE RIVER	6	4	48	57	44	48	4606							NUNN CREEK
3	4607	COLUMBINE DITCH	CACHE LA POUVRE RIVER	0	0	48	0	0	48	4607							DEADMAN CREEK
3	4600	LARAMIE-POUVRE TUNNEL	CACHE LA POUVRE RIVER	16,669	98	48	1,402	75	48	4600							LARAMIE RIVER
3	4605	SKYLINE DITCH	CACHE LA POUVRE RIVER	66	2	48	191	6	48	4605							LARAMIE RIVER
3	4602	CAMERON PASS DITCH	CACHE LA POUVRE RIVER	34	11	47	12	8	47	4602							MICHIGAN RIVER
3	4603	MICHIGAN DITCH	CACHE LA POUVRE RIVER	4,454	306	47	3,650	281	47	4603							MICHIGAN RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUVRE RIVER	20,465	130	51	19,440	99	51	4601							COLORADO RIVER
4	4634	ADAMS TUNNEL	BIG THOMPSON RIVER	223,482	360	51	163,469	303	51	4634							COLORADO RIVER
6	4655	MOFFAT TUNNEL	SOUTH PLATTE RIVER	48,899	340	51	36,600	365	51	4655							FRASER RIVER
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	1,174	107	51	0	0	51	4625							FRASER RIVER
7	4626	VIDLER TUNNEL	CLEAR CREEK	709	81	36	580	68	36	4626							MONTEZUMA CREEK
7	4682	STRAIGHT CREEK TUNNEL	CLEAR CREEK	*	*	36	389	365	36	4682							STRAIGHT CREEK
8	653	ROBERTS TUNNEL	SOUTH PLATTE RIVER	66,011	236	36	40,090	195	36	4684							BLUE RIVER
23	4611	BOREAS PASS DITCH	SOUTH PLATTE RIVER	129	47	36	249	67	36	4685							INDIANA CREEK
23	4612	HOOSIER PASS DITCH	ARKANSAS RIVER	10,286	151	36	10,310	168	36	4683							BLUE RIVER
23	4490	AURORA HOMESTAKE	SOUTH PLATTE RIVER	15,851	152	37	24,640	215	37	4644							HOMESTAKE CREEK

\*First Year of Reporting



**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 1**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
1	3570	BIJOU #2	SOUTH PLATTE	100	03/31/99	4,300	05/31/99	3,360	
1	3816	EMPIRE	SOUTH PLATTE	12,568	08/31/99	35,125	04/30/99	22,568	
1	3817	JACKSON	SOUTH PLATTE	13,258	10/31/99	27,402	04/30/99	13,258	
1	3651	RIVERSIDE	SOUTH PLATTE	23,866	10/31/99	63,189	05/31/99	23,866	
1	3400	VANCIL	SOUTH PLATTE	2,743	08/31/99	4,216	05/31/99	3,923	
1	3592	HORSE CREEK	HORSE CREEK	11,562	10/31/99	14,908	05/31/99	11,562	
1	3609	PROSPECT	PROSPECT CREEK	1,634	12/31/98	5,334	04/30/99	4,211	
1		OTHERS		293		2,346		852	
1		TOTALS		66,024		156,820		83,600	

**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	14,743	10/31/99	30,723	06/30/99	14,743	
2	3351	BULL CANAL #8	CLEAR CREEK	894	09/3/99	3,913	06/30/99	1,219	
2	3890	COAL RIDGE	LITTLE DRY CREEK	497	04/30/99	776	06/30/99	624	
2	3861	GREAT WESTERN	WALNUT CREEK	1,760	06/30/99	1,955	08/31/99	1,910	
2	3592	HORSE CREEK	SOUTH PLATTE	11,562	10/31/99	14,908	05/31/99	11,562	
2	3902	LORD	SOUTH PLATTE	0	11/30/98	676	05/31/99	109	
2	3858	LOWER LATHAM	SOUTH PLATTE	4,891	08/31/99	6,116	05/31/99	6,116	
2	3876	MILTON	SOUTH PLATTE	14,695	09/30/99	22,199	04/30/99	15,759	
2	3609	PROSPECT	SOUTH PLATTE	1,634	12/31/98	5,334	04/30/99	4,211	
2	3375	QUINCY	SOUTH PLATTE	2,037	09/30/99	2,893	02/28/99	2,445	
2	3903	STANDLEY	WOMAN CREEK	37,700	11/30/98	42,562	07/31/99	40,790	
2	3700	TANI LAKES COMBINED	SOUTH PLATTE	6,114	02/28/99	7,209	07/31/99	6,741	
2	3699	WEST GRAVEL LAKES COMBINED	SOUTH PLATTE	2,086	03/31/99	2,842	04/30/99	2,367	
2		OTHERS		1,703		2,560		1,798	
2		TOTALS		100,316		144,666		110,394	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WATER DISTRICT 3

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
3	3774	FOSSIL CREEK	FOSSIL CREEK	4,243	09/30/99	11,740	04/30/99	5,083		
3	3712	HALLAGAN/NORTH POUUDRE #16	N FK POUUDRE RIVER	1,073	09/30/99	6,427	04/30/99	2,695		
3	3707	INDIAN CREEK/MTN SUPPLY #16	INDIAN CREEK	694	03/31/99	1,906	05/31/99	1,155		
3	3697	NORTH POUUDRE #2/DEMMELE LAKE	N FK POUUDRE RIVER	1,898	09/30/99	3,153	04/30/99	2,153		
3	3702	NORTH POUUDRE #3/HACKEL LAKE	N FK POUUDRE RIVER	1,672	11/01/98	2,413	05/31/99	2,394		
3	3704	NORTH POUUDRE #4	N FK POUUDRE RIVER	692	03/31/99	1,025	06/30/99	683		
3	3698	NORTH POUUDRE #5/BEE LAKE	N FK POUUDRE RIVER	4,673	08/31/99	5,892	05/31/99	4,995		
3	3716	NORTH POUUDRE #15	N FK POUUDRE RIVER	2,305	11/01/98	5,269	04/30/99	2,964		
3	3715	PARK CREEK	PARK CREEK	2,433	01/31/99	6,568	05/31/99	6,367		
3	3730	COBB LAKE	CACHE LA POUUDRE RIVER	15,280	03/31/99	21,740	05/31/99	18,290		
3	3713	SEAMAN/MILTON SEAMAN	N FK POUUDRE RIVER	2,640	05/31/99	4,519	11/01/98	3,611		
3	3780	CLAYMORE	CACHE LA POUUDRE RIVER	318	10/31/99	890	05/31/99	318		
3	3772	SEELEY	CACHE LA POUUDRE RIVER	807	03/31/99	1,069	04/30/99	1,048		
3	3804	WARREN	CACHE LA POUUDRE RIVER	984	03/31/99	1,981	06/30/99	1,352		
3	3786	WOOD	ROLLARD DRAW	1,069	08/31/99	2,437	04/30/99	1,069		
3	3678	MOUNTAIN SUPPLY RESERVOIR #20	JOE WRIGHT RESERVOIR	3,150	11/01/98	7,094	07/31/99	3,281		
3	3952	RAWHIDE	CACHE LA POUUDRE RIVER	13,706	10/31/99	15,307	05/31/99	13,706		
3	3732	HORSETOOTH	DIXON CANYON CREEK	72,210	11/30/98	151,060	06/30/99	109,734		
3	3725	DOUGLASS	CACHE LA POUUDRE RIVER	5,584	09/30/99	8,422	06/30/99	6,453		
3	3727	WINDSOR RESERVOIR #8	CACHE LA POUUDRE RIVER	1,482	09/30/99	9,804	05/31/99	7,546		
3	3728	NO. 8 ANNEX	CACHE LA POUUDRE RIVER	405	09/30/99	3,622	05/31/99	1,472		
3	3738	WINDSOR RESERVOIR	CACHE LA POUUDRE RIVER	6,270	08/31/99	17,238	05/31/99	11,047		
3	3679	CHAMBERS	JOE WRIGHT CREEK	4,283	08/31/99	8,740	06/30/99	5,434		
3	3676	LONG DRAW/GRAND RIVER	LONG DRAW CREEK	2,439	10/31/99	10,519	06/30/99	2,439		
3		SUBTOTALS		150,310		308,835		215,289		

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 3 (CONTINUED)**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				END OF YEAR
				MINIMUM		MAXIMUM		
				AF	DATE	AF	DATE	
		BALANCE FROM PREVIOUS PAGE						
3	3744	BLACK HOLLOW	CACHE LA POUUDRE RIVER	150,310		308,835		215,289
3	3735	CURTIS	CACHE LA POUUDRE RIVER	3,855	01/31/99	5,258	07/31/99	4,171
3	3740	KLUVER	CACHE LA POUUDRE RIVER	504	03/31/99	662	08/31/99	618
3	3742	LONG POND/WATER SUPPLY #5	CACHE LA POUUDRE RIVER	383	02/28/99	751	09/30/99	679
3	3736	ROCKY RIDGE/WATER SUPPLY #1	CACHE LA POUUDRE RIVER	2,503	11/01/98	3,109	05/31/99	2,701
3	3737	WATER SUPPLY #2 & #3	CACHE LA POUUDRE RIVER	2,860	03/31/99	3,565	06/30/99	3,323
3	3739	WATER SUPPLY #4	WATER SUPPLY RES #2 & #3	2,927	08/31/99	4,301	05/31/99	3,628
3	3805	TERRY/LARIMER WELD	CACHE LA POUUDRE RIVER	271	03/31/99	610	10/31/99	610
3	3726	WORSTER	SHEEP CREEK	4,475	08/31/99	7,928	06/30/99	5,658
3	3775	TIMNATH	DUCK SLOUGH	280	11/01/98	3,750	05/31/99	358
3	3770	WINDSOR LAKE	CACHE LA POUUDRE RIVER	2,334	11/01/98	10,895	04/30/99	7,200
3	3683	BARNES MEADOW RESERVOIR	BARNES MEADOWS CREEK	960	03/31/99	1,140	06/30/99	1,014
3	3699	NORTH POUUDRE RESERVOIR #6	N FK POUUDRE RIVER	688	04/30/99	2,349	06/30/99	2,268
3	3708	MOUNTAIN SUPPLY RESERVOIR #18	BOX ELDER CREEK	4,822	11/30/98	8,773	06/30/99	7,656
3	3745	DOWDY LAKE RESERVOIR	SOUTH PINE CREEK	448	08/31/99	704	12/31/98	566
3	3751	SOUTH GRAY RESERVOIR	BOX ELDER CREEK	788	03/31/99	916	05/31/99	843
3	3686	COMANCHE RESERVOIR	BIG BEAVER CREEK	0	08/31/99	734	05/31/99	465
3	3814	PANHANDLE RESERVOIR	PANHANDLE CREEK	0	11/01/98	2,591	06/30/99	0
3		OTHERS		1,037	07/31/99	1,054	11/01/98	1,046
3		TOTALS		4,220		9,774		5,089
				183,665		377,699		263,182

**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/SH	LITTLE THOMPSON	1,953	03/31/99	7,140	05/31/99	4,971	
4	4110	BOYD LAKE	BIG THOMPSON	35,337	08/31/99	49,048	06/30/99	40,590	
4	4513	CARTER	BIG THOMPSON	56,508	11/30/98	111,259	06/30/99	67,706	
4	4116	DONATH	BIG THOMPSON	299	10/31/99	1,143	06/30/99	299	
4	4166	HERTHA RESERVOIR	DRY CREEK HERTHA	1,285	07/31/99	1,703	01/31/99	1,611	
4	4123	HORSETOOTH RESERVOIR	BIG THOMPSON	1,117	03/31/99	8,182	05/31/99	6,047	
4	4487	LAKE LOVELAND	BIG THOMPSON	10,945	03/31/99	12,736	06/30/99	12,201	
4	4136	LON HAGLER	BIG THOMPSON	1,223	08/31/99	5,049	05/31/99	4,874	
4	4137	LONE TREE	BIG THOMPSON	4,561	08/31/99	8,769	01/31/99	4,561	
4	4133	LOVELAND LAKE	BIG THOMPSON	1,090	09/30/99	1,646	05/31/99	1,160	
4	4134	BOEDECKER LAKE/MARINO	BIG THOMPSON	2,029	09/30/99	5,532	05/31/99	4,657	
4	4146	WELCH LAKE	BIG THOMPSON	4,408	02/28/99	6,375	06/30/99	5,199	
4		OTHERS		1,460		2,538		1,960	
4		TOTALS		122,215		221,120		155,836	

**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	AF	DATE
5	4020	BEAVER POND	BEAVER CREEK	451	08/31/99	2,162	06/30/99	451	
5	4071	FOOTHILLS	ST. VRAIN	1,639	08/31/99	3,263	05/31/99	3,202	
5	4037	HIGHLAND #1	ST. VRAIN	677	12/31/98	947	05/31/99	754	
5	4032	HIGHLAND #2	ST. VRAIN	2,301	03/31/99	3,625	06/30/99	3,058	
5	4038	HIGHLAND #3	ST. VRAIN	850	07/31/99	1,616	06/30/99	1,424	
5	4073	MCINTOSH	ST. VRAIN	1,721	11/01/98	2,280	05/31/99	1,957	
5	4063	PLEASANT VALLEY	ST. VRAIN	2,280	11/01/98	3,076	05/31/99	2,369	
5	4067	OLIGARCHY RESERVOIR #1	ST. VRAIN	733	10/31/99	1,536	05/31/99	733	
5	3905	UNION	ST. VRAIN	9,634	07/31/99	12,693	05/31/99	11,880	
5	4076	LEFT HAND PARK	LEFT HAND CREEK	1,027	11/01/98	1,549	04/30/99	1,549	
5	4488	LEFT HAND VALLEY	LEFT HAND CREEK	0	11/01/99	1,626	07/31/99	1,290	
5	4010	BUTTON ROCK	ST. VRAIN	11,669	03/31/99	16,286	06/30/99	16,109	
5	4379	NEW THOMAS	ST. VRAIN	1,587	11/01/98	2,335	07/31/99	2,300	
5	4072	CLOVER BASIN RESERVOIR	ST. VRAIN	596	11/01/98	635	04/30/99	620	
5	4081	LAGERMANN	LEFT HAND CREEK	920	07/31/99	997	04/30/99	930	
5	4065	MCCALL RESERVOIR	ST. VRAIN	250	08/31/99	484	07/31/99	280	
5		TOTALS		36,335		55,110		48,906	

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 6

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
6	4269	ALBION	ALBION CREEK	0	02/28/99	1,111	06/30/99	1,111	1,111	
6	4172	BARKER	BOULDER CREEK	11,277	07/31/99	3,638	04/30/99	3,638	9,367	
6	4173	BASELINE	BOULDER CREEK	3,047	03/31/99	5,296	06/30/99	5,296	4,356	
6	4515	BOULDER	BOULDER CREEK	6,469	03/31/99	11,691	06/30/99	11,691	7,816	
6	4489	GOOSE	NORTH BOULDER CREEK	0	11/30/98	1,036	06/30/99	1,036	0	
6	4199	GROSS	SOUTH BOULDER CREEK	21,849	04/30/99	41,506	09/30/99	41,506	41,063	
6	4178	HILLCREST	BOULDER CREEK	1,935	11/30/98	2,207	04/30/99	2,207	2,167	
6	4180	LEGGETT	BOULDER CREEK	1,397	11/30/98	1,601	04/30/99	1,601	1,572	
6	4212	MARSHALL	SOUTH BOULDER CREEK	5,653	11/30/98	9,628	05/31/99	9,628	6,394	
6	4185	PANAMA	BOULDER CREEK	2,800	08/31/99	4,000	04/30/99	4,000	3,500	
6	4238	SILVER	NORTH BOULDER CREEK	1,771	03/31/99	3,996	06/30/99	3,996	3,710	
6	4187	SIX MILE	BOULDER CREEK	700	09/30/99	1,200	03/31/99	1,200	700	
6	4214	MCKAY LAKE	SOUTH BOULDER CREEK	337	03/31/99	668	06/30/99	668	441	
6	4230	VALMONT	SOUTH BOULDER CREEK	6,802	11/30/98	7,426	04/30/99	7,426	7,337	
6		TOTALS		64,037		95,004		95,004	89,534	

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 7

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE	AF	DATE
7	3324	RALSTON	RALSTON CREEK	3,475	10/31/99	10,277	06/30/99	3,475	3,475
7	4415	LONG LAKE RESERVOIR UPPER	RALSTON CREEK	932	03/31/99	1,439	05/31/99	1,385	1,385
7	3406	COORS B #3	CLEAR CREEK	1,645	04/30/99	2,515	05/31/99	2,515	2,515
7	3407	COORS B #4	CLEAR CREEK	3,913	11/30/98	4,000	12/31/98	4,000	4,000
7	3308	BLUNN	CLEAR CREEK	4,588	11/30/98	5,462	05/31/99	5,355	5,355
7	3702	FAIRMOUNT	CLEAR CREEK	770	1031/99	977	05/31/99	770	770
7	4411	MAPLE GROVE	SOUTH CLEAR CREEK	934	03/31/99	1,150	4/30/99	1,099	1,099
7		OTHERS		1,841		2,202		2,010	2,010
7		TOTALS		18,098		28,022		20,609	20,609



**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 8

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)									
				MINIMUM		MAXIMUM		MINIMUM		MAXIMUM			
				AF	DATE	AF	DATE	AF	DATE	AF	DATE		
8	3514	CHATFIELD	SOUTH PLATTE	19,691	11/30/98	28,716	05/31/99						
8	3532	CHERRY CREEK	CHERRY CREEK	12,857	08/31/99	13,716	04/30/99						27,004
8	3832	MCLELLAN	DAD CLARK DITCH	5,557	06/30/99	5,922	07/31/99						13,234
8	3983	STRONTIA SPRINGS DVR DAM	SOUTH PLATTE	6,369	06/30/99	7,353	12/31/98						5,922
8		TOTALS		44,474		55,707							7,205
													53,365

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 9

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
9	3815	SODA #1, #2	BEAR CREEK	1,059	10/31/99	1,473	11/30/98		1,059	
9	4281	BOWLES	BEAR CREEK	962	11/30/98	2,062	04/30/99		1,789	
9	4314	PATRICK	BEAR CREEK	1,003	10/31/99	1,165	07/31/99		1,003	
9	3999	BEAR CREEK RESERVOIR	BEAR CREEK	1,986	03/31/99	2,520	05/31/99		1,541	
9	3501	MARSTON	SOUTH PLATTE	14,678	07/31/99	18,630	04/30/99		17,710	
9		OTHERS		2,307		3,412			2,733	
9		TOTALS		21,995		29,262			25,635	

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 23

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
23	3904	ANTERO	S FK SOUTH PLATTE	19,993	08/31/99	20,169	04/30/99		20,015	
23	3981	JEFFERSON LAKE RESERVOIR	JEFFERSON LAKE	683	04/30/99	2,010	06/30/99		1,031	
23	3965	ELEVEN MILE	MID FK SOUTH PLATTE	99,040	10/31/99	103,865	06/30/99		99,040	
23	3962	MONTGOMERY	MID FK SOUTH PLATTE	389	04/30/99	4,991	10/31/99		4,991	
23	4013	SPINNEY MOUNTAIN	MID FK SOUTH PLATTE	31,768	01/31/99	53,651	06/30/99		51,931	
23		TOTALS		151,873		184,686			177,008	

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

WATER DISTRICT 64

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		AF	DATE	
				AF	DATE	AF	DATE			
64	3552	PREWITT	SOUTH PLATTE	15,890	11/30/98	28,600	04/30/99	28,600	04/30/99	22,825
64	3551	NORTH STERLING	SOUTH PLATTE	22,620	09/30/99	74,160	05/31/99	74,160	05/31/99	41,340
64	3906	JULESBURG	SOUTH PLATTE	10,470	08/31/99	19,520	12/31/98	19,520	12/31/98	18,140
64		TOTALS		48,980		122,280		122,280		82,305

**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	46,852	01/31/99	79,607	06/30/99	60,618	
80	3829	WELLINGTON	N FK SOUTH PLATTE	4,174	11/30/98	4,399	04/30/99	4,399	
80	3828	ALTURA RESERVOIR	GENEVA CREEK	130	11/30/98	610	05/31/99	130	
80		TOTAL		51,156		84,616		65,147	

**WATER DIVERSION SUMMARIES**

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	310	5	120	111	4,988	3,211	780,680	350,147	315,304	210,000	1.50	
2	271	3	155	7	4,326	1,471	534,006	102,574	452,554	180,000	2.51	
3	202	0	45	17	2,783	2,310	620,022	425,417	391,761	180,000	2.18	
4	119	0	50	12	1,224	1,531	360,710	395,722	136,207	100,000	1.36	
5	139	0	22	15	1,200	3,200	137,095	18,796	94,237	40,000	2.36	
6	166	0	60	33	1,676	3,578	250,494	87,837	91,663	35,000	2.62	
7	119	0	117	6	1,656	2,214	183,008	7,225	48,292	14,000	3.45	
8	604	0	180	126	5,676	2,305	441,111	124,763	47,395	18,000	2.63	
9	121	0	4	4	1,497	702	15,653	3,203	7,044	1,700	4.14	
23	220	0	128	9	1,355	1,385	173,574	96,660	28,463	9,565	2.98	
48	57	0	19	0	69	1,305	33,644	0	19,246	5,000	3.85	
49	6	0	16	6	35	*	2,676	0	2,676	1,500	1.78	
64	167	1	30	26	1,745	2,987	276,794	15,084	225,672	190,000	1.19	
65	18	0	19	4	84	*	11,060	0	11,060	4,700	2.35	
76	2	0	2	0	10	*	1,958	0	0	350	0.00	
80	167	0	46	4	871	*	69,685	59,057	10,247	4,000	2.56	
TOT	2,688	9	1,013	38C	29,195	33,285	3,892,170	1,686,485	1,881,821	993,815	1.89	

DISTRICT 9 DITCH VISITS COMBINED WITH DISTRICT 80

DISTRICT 48 DITCH VISITS COMBINED WITH DISTRICT 76

DISTRICTS 49 AND 65 DITCH VISITS COMBINED WITH DISTRICT 64

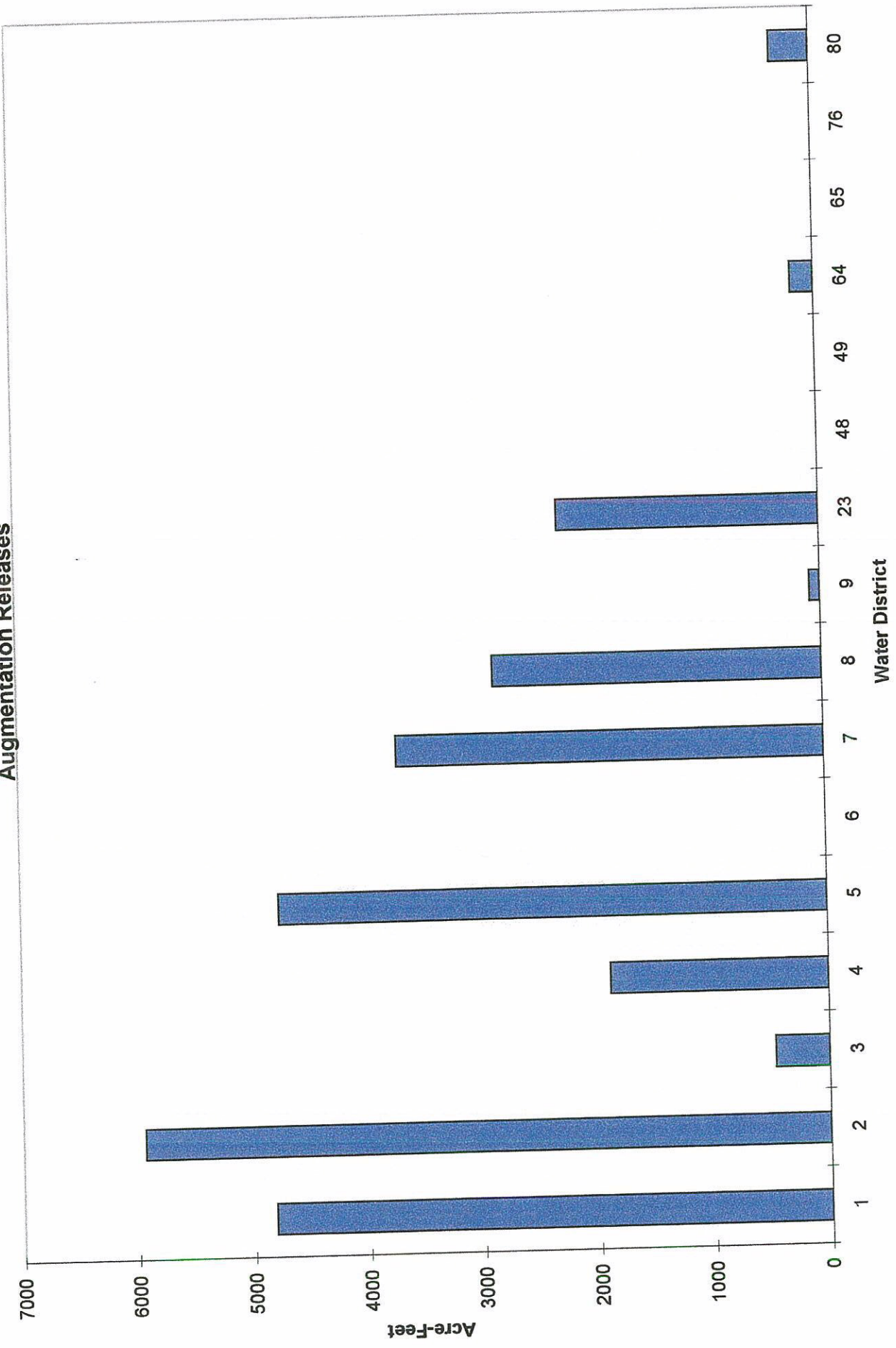
### WATER DIVERSION SUMMARIES TO VARIOUS USE

WD	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
1	0	0	1,765	0	10,872	1,250	0	1	201
2	0	0	54,083	4,387	3,789	155	0	0	7
3	0	0	63,811	0	2,629	0	0	29	0
4	0	0	30,569	39	0	0	0	0	0
5	0	878	21,314	9	0	0	0	23	0
6	0	960	68,735	22	622	0	0	1	0
7	0	54,043	8,328	0	46,377	0	0	0	0
8	0	11,177	258,350	629	3,927	0	1,200	8,255	0
9	0	0	391	32	119	0	0	0	0
23	13,356	0	456	0	3,969	3,630	53	2	351
48	14,267	131	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	0	0	0	48	0	0	0	8	24
65	6,463	0	0	0	0	0	0	0	0
76	1,958	0	0	0	0	0	0	0	0
80	0	0	98	19	0	0	0	3	190
TO	36,044	67,189	507,900	5,185	72,304	5,035	1,253	8,322	773

WD	AUGMENTATION	EVAPORATION	GEOHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
1	4,810	0	0	0	0	0	0	95,294	0
2	5,936	33	0	0	0	0	0	7,130	0
3	461	3,817	0	0	0	0	0	0	0
4	1,886	0	0	0	0	971,030	0	0	0
5	4,754	0	0	0	1,044	0	0	0	0
6	0	0	0	0	13,176	13,092	0	0	0
7	3,703	318	0	0	0	0	0	1,467	0
8	2,854	1,229	0	0	0	0	0	0	0
9	89	0	0	0	0	0	0	0	0
23	2,274	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	124	0	0	0	0	0	0	22,313	0
65	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	337	0	0	0	0	0	0	70	0
TO	27,228	5,397	0	0	14,220	984,122	0	126,274	0

**DIVISION 1  
1999**

**Augmentation Releases**





WATER COURT ACTIVITIES  
Calendar Year 1999

New Applications made to water court this year.....	240
Consultations with Referee this year.....	280
Decrees Issued by Court this year.....	380
Dismissals.....	23
Complaints.....	4
Withdrawn.....	3

TYPES OF RULINGS

TYPE OF RULING	NUMBER OF CASES	NUMBER OF STRUCTURES
Findings of Diligence on Conditional Rights	48	116
Cancellations of Conditional Rights	1	4
Conditional Rights Made Absolute	19	27
Surface Water Rights Adjudicated	17	43
Underground Water Rights Adjudicated	237	722
Water Storage Rights Adjudicated	4	4
Plans for Augmentation Adjudicated	48	945
Changes of Water Rights Adjudicated	45	166
Instream Flow Rights Adjudicated	0	0

CALLING PRIORITY 1998-1999

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
1998-99	1998-99					Placing Call	
10/02/98	01/21/99	Chatfield	12/28/1977	46748.00000	2	Denver	8,80,23
12/02/98	12/16/98	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80,23
12/21/98	01/21/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80,23
01/21/99	01/29/99	Prospect Reservoir	11/21/1910	22239.00000	2	Bob Stahl	8,9,80,23
01/29/99	02/16/99	Horse Creek	03/17/1911	22355.00000	2	Bob Stahl	8,9
01/29/99	03/29/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80,23
03/16/99	04/15/99	Bijou Recharge Bypass to Jackson Lake	05/26/1972	44706.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9
03/29/99	03/31/99	Burlington Direct	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
03/31/99	04/02/99	Burlington Bypass to Western	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
04/02/99	04/06/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80,23
04/06/99	04/14/99	Burlington Direct	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
04/14/99	04/19/99	Denver Intake	12/06/1910	22254.00000	2	Bob Stahl	8,80,23
04/15/99	04/19/99	Riverside Recharge	06/30/1975	46751.45836	1	Mae Cunning	2,3,4,5,6,7,8,9,23,80
04/16/99	04/19/99	Cheesman	06/27/1889	14423.00000	8	Denver	80,23
04/19/99	04/22/99	Burlington Direct	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
04/19/99	04/22/99	South Platte Ditch	03/15/1974	45364.00000	64	Jim Hanrahan	1,2,3,4,5,6,7,64
04/22/99	05/25/99	Cheesman	06/27/1889	14423.00000	8	Denver	80,23
04/22/99	04/26/99	Denver Intake	12/06/1910	22254.00000	8	Denver	80,23
05/25/99	06/03/99	Spinney Mountain	03/26/1973	45010.00000	23	Aurora	23
06/03/99	06/11/99	Spinney Mountain	09/27/1979	51864.47386	23	Thornton	23
		Free River					
07/08/99	07/20/99	Bijou Canal	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,23,80
07/16/99	07/18/99	Burlington Bypass to Western	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
07/20/99	07/22/99	Chatfield Bypass to Burlington	12/28/1977	46748.00000	8	Denver	9,80
07/22/99	07/24/99	Burlington Bypass to Western	01/13/1909	21562.00000	2	Bob Stahl	2,7,8,9,80,23
07/24/99	07/26/99	Bijou Canal	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,23,80
07/26/99	07/30/99	Riverside Direct	05/31/1907	20969.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,23,80
07/27/99	07/28/99	Burlington Bypass to Western	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,23,80
07/30/99	07/31/99	Chatfield Bypass to Burlington	12/28/1977	46748.00000	2	Bob Stahl	2,8,9,23,80

CALL RECORD 1998-1999 (CONTINUED)

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person Placing Call	Districts Affected
1998-1999	1998-1999	Free River					
09/09/99	09/16/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,23,80
09/24/99	10/01/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,23,80
10/06/99	10/14/99	Denver Intake	12/06/1910	22254.00000	8	Denver	8,23,80

## Staffing

Dam Safety Engineers	4
Water Resource Engineers	6
Engineering/Physical Science Techs (Includes 4 Hydrographers)	6
Administrative Assistants	2
Full-Time Water Commissioners	13
Permanent Part-Time Water Commissioners	8
Temporary Water Commissioners	<u>6</u>
TOTAL STAFF	45

## Statistics

Decreed Surface Rights	12,193
Number of Well Permits	127,150
Number of Plans for Augmentation	521
Number of Dams	771
Number of Active Substitute Supply Plans	62
Number of Contacts to give Public Assistance	41,900+