

## **TABLE OF CONTENTS**

Current Water Year Water Administration	1
Dam Safety Hydrography	2
Localized Flooding in 1997	4
Involvement with the Community	7
On-Going Projects	-
Big Thompson River and St. Vrain River Enforcement Program Halligan Reservoir Incident and Task Force DWR MOU with DOW and Water Quality South Platte Lower River Group Activities Colorado State University (South Platte Map) Long Range Plan Goal Process Well Location Program SB-74 Cherry Creek Basin Management Plan	7 8 9 11 11 12 12
On-Going Issues or Operations	
Platte River Endangered Species Partnership	13
Republican River Compact US Forest Service/Poudre	15 16
Court Decisions	
Aurora/South Park	16
Turkey Canon and Exempt Wells FRICO V. Golden	16 17
Denver Exchanges	17
Golden V. Northglenn	18
Personnel/Workload Issues	10
Well Administration Activities  Dam Safety	18 18
Administration	19
Acknowledgement	19
Water Administration Data Summaries	
Runoff Forecast Augmentation Releases by District	21 22
Transmountain Diversions	23
Reservoir Storage Summaries	24
Water Diversion Summaries	37
Water Diversion Graph	39
Water Court Activities Water Call Record	40
Staffing and Statistics	41 43

#### **CURRENT WATER YEAR**

Water Administration

he overall wet weather and favorable stream flow conditions that have existed the last few years continued in 1997. The year began with better than average carryover storage and above average snowpack throughout the basin. However, March and the



beginning of April were somewhat dry. The dry warm conditions prompted ditch companies to open their ditches for direct irrigation. Since snow melt had not begun, direct flow calls affected the entire South Platte toward the end of April and beginning of May except for a brief respite the last week of April due to storm conditions. This is not unusual for this time of year as irrigation demand usually increases prior to the beginning of runoff.

Excess Colorado Big Thompson (CBT) water that could not be stored was made available by the Northern Colorado Water Conservancy District (NCWCD) to meet a portion of the direct flow demand on the tributaries and mainstem within the Conservancy District boundaries during the spring. Toward the end of May, there were several rainstorms and the beginning of runoff that improved flow conditions dramatically along the tributaries and the mainstem of the South Platte.

The improved flow conditions the end of May along with reduced irrigation demand due to the rain increased supplies allowing the remaining reservoirs on the tributaries to finish filling and mainstem reservoirs to refill. These reservoirs had been drawn upon for early season irrigation. The flow conditions also allowed for significant recharge to occur along the South Platte during the end of May. By the end of May, there were no direct flow calls on the mainstem of the South Platte downstream of Denver and on most tributaries. The calls that did exist were for storage. During this time, NCWCD also set their CBT delivery unit quota at 50% delivery for 1997. This is the expected quota when there are abundant supplies.

Several rainstorms in addition to above average snowpack runoff in June provided for continued excellent river conditions for water users. Fortunately, the runoff occurred in a fairly even manner and there was limited flooding due to runoff. This was in contrast to 1995 when the high snowpack runoff and wet spring conditions provided for very high flows with some flooding for nearly a month. The weather and flow conditions provided for a good start to the cropgrowing season.

River flows dropped off dramatically toward the end of June as the runoff ended. The flow on the South Platte at the Kersey Gage went from over 10,000 cfs to 1,600 cfs the last week of June. Although flows in the South Platte and its tributaries diminished, they were still above average through out the basin during July. The most senior call on the South Platte during July was the 1872 Brantner ditch call in District 2 on July 19, 1997. In general, the calls through out the basin were not as senior as normal and

occurred two to three weeks later than normal. In addition, significant intense widespread rainstorms toward the end of July returned the South Platte to flows normally which exist only during runoff. These rainstorms completely removed the call on the whole mainstem of the South Platte the last day of July.



The flow levels continued to be extremely high for the basin during August, generally the month with the most senior calls. In fact, there was no call on the South Platte River downstream of the Denver area the entire month of August. The high flow levels allowed the refilling of some reservoirs in August, which is also very unusual. Irrigation users began to curtail their use in the month of September as crops began reaching maturity. Irrigation ended in October finishing what had been an excellent water supply year for irrigation and other uses. The only negative side to this season, for agriculture and some urban areas, was created by flooding and hail damage caused by several isolated intense thunderstorms (discussed under Localized Flooding in 1997).

With the end of the irrigation season, diversions returned to being primarily for storage and recharge except for continued municipal diversions. Reservoir levels both on the mainstem and tributaries also were in excellent shape with many reservoirs already at their winter storage levels by the end of the year. There were no calls on the mainstem except for Denver during November and December. This is indicative that the water supply situation is very good in the South Platte drainage. Most years there would be a call at the Burlington

Ditch for storage during November. The flow in the South Platte River and its tributaries also continued significantly above average the last of 1997 due to continued return flows from the high flow water year. For example, the mean daily flow of the South Platte at Julesburg was 1,161 cfs in December in 1997 which far exceeds the average mean daily flow of 404 cfs in December for the period of record.

#### Dam Safety

third consecutive year with above normal snowpack kept the dam safety staff at a heightened level of alert. The snowmelt runoff developed at a normal rate however, and no flood concerns were realized. The occurrence of several intense storms over the summer. necessitated emergency response to a few small dams, all but one of which were of nonjurisdictional size and are not regulated. Two small dams were breached and failed, another dam overtopped and displayed severe erosion in the spillway, and the one jurisdictional dam performed as designed with no apparent distress. No downstream damage occurred due to these events. The staff responded to one other incident related to snowmelt flooding which was inappropriately identified as a dam.



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 285 dams received periodic safety inspections. Another 121 dams were visited 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 12 construction inspections.

The hydrologic review of spillways continues. The review of Class I dams was completed two years ago, and the owners of dams with inadequate spillways notified to bring their dams into compliance with the Rules and Regulations. Due dates are approaching for the more seriously inadequate dams, and staff is in the process of addressing this next phase of the process of correcting spillway deficiencies.

The evaluation of the 138 Class II dams are nearing completion, although a program change to perform some design review activities in the Division offices has slowed this process somewhat. Ten hydrologic studies were completed in 1997. Of the remaining 17 dams to be evaluated, almost one third have been previously identified as being inadequate, and are already under orders for modification. The program completion date for the Class II evaluations is 1998.



Staff continues to conduct internal inspections of the outlets using the SLED mounted camera device. The target date for having the outlets of all Class I and Class II dams inspected is December 1998.

There were no new dams completed in 1997, one significant modification project was begun,

Woodland Park Dam (WD 8), and the spillway at Frenchman Creek Dam (WD 65) was rebuilt after its failure two years ago. Several smaller repair projects were also completed or started construction.

The staff responded to an operational emergency at Clear Lake Dam (WD 7), when sinkholes developed in the upstream slope. This dam had been modified the previous year, and the sinkholes were the consequence of inadequate design and /or construction of the modification. Conditions suggesting existence of additional sinkholes were recognized during the periodic field inspection after initial repairs were thought to be complete. The reservoir was subsequently drained until a more suitable repair plan can be devised.



The *Dam News*, a newsletter sent out to dam owners, continues to be a well-received and popular tool for dissemination of important information and news. Circulation includes limited national distribution among private consultants, professional agencies and national publications.

#### **Hydrography**

he 1997 water year in the South Platte River and its tributaries was a good year. A comparison of historic average and 1997 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 1997.

South Platte at Kersey:

Historic average flow 562,900 AF. 1997 Water year flow 1,227,000 AF.

South Platte at Julesburg:

Historic average flow 394,200 AF 1997 Water Year flow 761,500 AF.

Hydrographers in Division One measured and kept records for 81 gaging stations located throughout the division this year. streamflow data gathered at those gaging stations is the basic information used by water administrators and water users to determine the available water supply within the division. Twenty of these stations are record stations for which a completed and verified record of water flow is turned into the United States Geological Survey (USGS) for their publication. remaining 61 stations are records kept solely by the Division of Water Resources (DWR) and are published separately by DWR. We are continually experiencing increased demands on our hydrographer's time. For this reason, we are training and providing experience to several assistant water commissioners so they can provide support in their Districts.



Funding was received from the Colorado Water Conservation Board (CWCB) once again this year, which allowed the staff to repair and replace several additional stream gages. During the past year, a new station was

installed on the Middle St. Vrain near Peaceful Valley. It took over five years to get the approval of the Forest Service to allow us to install this gage. This station will provide us with critical information needed for river administration. Fred Renner, the hydrographer for this drainage, was persistent and finally successful in getting all forms that were needed approved.

A new station was installed on Dry Creek near Ft. Lupton (see Figure 1) and a new cableway was put in at the Cache La Poudre River at the mouth of the canyon station (see Figure 2). Also, data collection platform's (DCP) were installed on the Fulton Ditch, Hillsboro Ditch, Bijou Canal and Canal No. 3.

We plan to install several 8200's and 8210's on a number of stations in 1998, replacing the older 8004 DCP'S. The older units will be put in service at less sensitive locations.

#### Localized Flooding in 1997

n 1997, several intense localized rainstorms created significant flooding in isolated parts of the basin. The most damaging storm occurred on June 28, 1997 on the west side of Fort Collins where the maximum rainfall exceeded 10 inches. This storm resulted in subsequent flooding along Spring Creek in Fort Collins where five people lost their lives and where millions of dollars of damages were sustained. The storm also resulted in flooding at Colorado State University with more than 40 million dollars worth of damage.

During June, there were also significant rainstorms on Crow Creek northeast of Greeley, on Sheep Draw, southwest of Greeley, and in Phillips County in the vicinity of Holyoke. The Phillips County storm created the most damage with over 30 homes and three County Road Bridges flooded along with damage to businesses and washout of several county roads.

Another heavy rainstorm in July along Pawnee



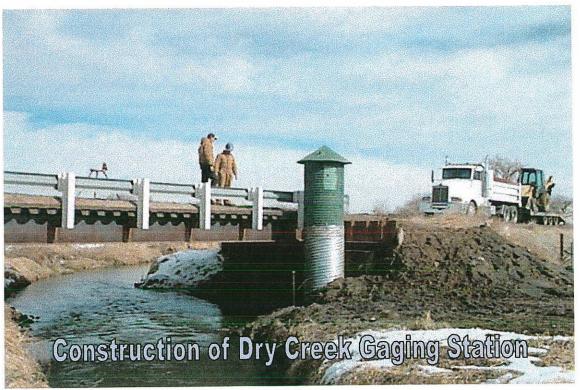


Figure 1

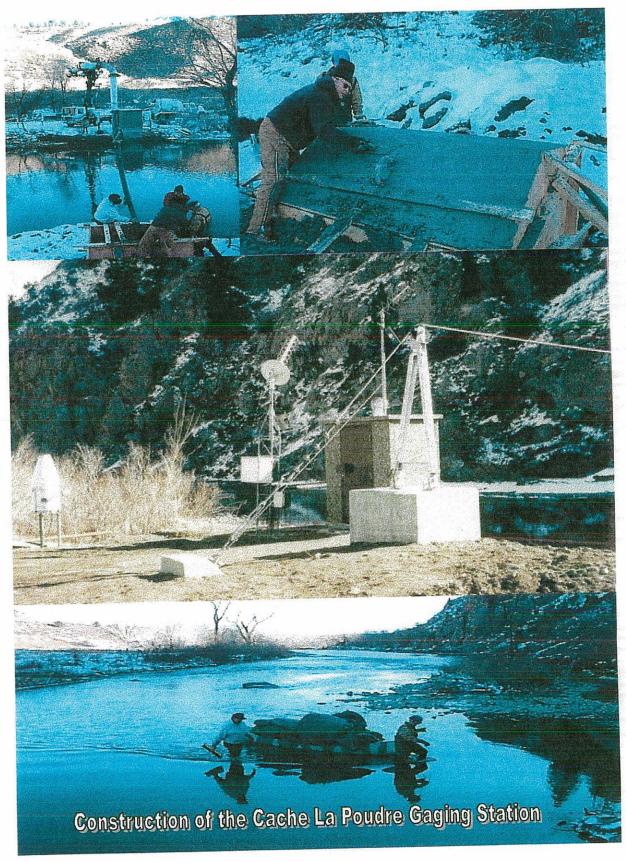


Figure 2

Creek, normally a very small tributary to the South Platte River, caused significant property damage in Sterling and the Town of Atwood. The storm covered approximately 30 square miles with a foot of rain. The flood developed over a matter of days, slowly moving through Atwood and Sterling. The reports were that this event exceeded the 1935 and 1965 floods in that region. In addition, heavy rain caused the Riverside Canal to breach with ensuing flooding in the Town of Weldona.

#### Involvement with the Community

ivision One personnel routinely attend and make presentations at meetings of realtors, homeowners groups, organizations, schools, and universities. We also attend meetings of Groundwater Appropriators of the South Platte, Northern Colorado Water Conservancy District, Central Colorado Water District, other Conservancy conservancy districts and forums. Annually, we participate with Central Water Conservancy District in a water festival for grade school children to share what our agency does and also the prior history of the appropriation doctrine. Individual contact and assistance by water commissioners and other division staff also continues to occur daily and provides the foundation of our public assistance.

#### ON-GOING PROJECTS

<u>Big Thompson River and St. Vrain River</u> <u>Enforcement Program</u>

ivision One is continuing the major effort to locate illegal uses of wells and 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 and also the St. Vrain River (District 5) from the Town of Lyons to its headwaters. We held a public meeting in Allenspark during this past summer and had

several newspaper articles written concerning the illegal use of water.

At the Allenspark meeting, we addressed what alternatives are available to those who seek to continue diverting service water for their businesses, lawn watering or to serve their homes. Similar information was provided for those who have been using wells for purposes that were not permitted. We have developed a database of well permits issued throughout the areas of concern.



people are submitting change of Many ownership requests for their wells and have obtained forms to late register their historic uses of pre-72 wells. Over 140 persons have joined a substitute supply plan operated by the Water Association of the Rockies (WAR) that involves the use of CBT to replace water being diverted directly from the Big Thompson River. In addition, 14 commercial users and other are joining a substitute supply plan for the Big Thompson River operated by the Continental Water Bank, Inc. that will replace depletions associated with illegal well usage. This plan will eventually be taken to water court. Many people have chosen to cease the watering of their lawns instead of augmenting for out-ofpriority uses. In addition, realtors in the area now are telling customers when they are aware of illegal uses.

Starting early in 1998 in District 4, the water commissioner will continue contacting water users in the Fall River area of Estes Park and

Big Thompson Canyon notifying them if it appears that they have illegal uses. If they state that they don't intend to do anything or after one year they continue to illegally divert water, we will issue cease and desist orders.

In District 5, the water commissioner will continue contacting water users who are illegally diverting water. This will primarily involve our following up on last year's contacts and looking for any new illegal diversions. As a result of 1997 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 from 40 to 128. Overall, even though this project has not been accepted without some complaints, it has been getting positive results in eliminating illegal water uses and the injury created by these illegal uses to senior water users.

#### Halligan Reservoir Incident and Task force

he Halligan Reservoir incident, which occurred during September of 1996, resulted in a significant sediment discharge that killed over 4,200 fish in Phantom Canyon and the destruction of over 3 ½ miles of the stream ecosystem. A Technical Committee that was formed to arrive at a plan that will result in the short term and long term recovery of the North Poudre River for the fishery and macro invertebrates has continued meeting to evaluate the progress.

Significant progress has been made in the recovery of the fishery and the habitat that is needed to provide for the survival of the fish during the winter months. CSU model studies were also evaluated to determine how well these computer model programs predicted what happened in the field with the programmed releases from the reservoir which were made to scour out pools that had been filled in as a result of the prior sediment releases. It was found that sustained release flow rates lost their effectiveness to scour the pools. Changing flows up and down over time was more effective in removing materials from the pools.

The Technical Committee will continue to monitor the recovery efforts in the coming year.

A Task Committee was also formed to review the proposed recovery plan developed by the Technical Committee. The Task Committee also developed a cooperative agreement between the Division of Water Resources. Division of Wildlife and the Division of Water Quality for the Cache La Poudre basin. addition, the Task Committee developed a letter agreement between the North Poudre Irrigation Company, owners of Halligan dam, and the Division Engineer. This agreement covers operation of all of North Poudre Irrigation Company reservoirs and is intended to help assure that there will not be environmental damage from future reservoir operations.

In addition, the Division Engineer will pursue similar letter agreements for other dam owners in the Cache la Poudre basin who the three agencies feel have potential for negative impacts to fisheries or aquatic ecosystems. Eventually, it is hoped that similar letter agreements will be developed throughout the balance of the state between dam owners and the Division Engineers.

#### DWR MOU with DOW and Water Quality

s a result of the Halligan Reservoir incident, a new statewide Memorandum of Understanding (MOU) was developed and This MOU involves both exchanges and reservoir operations. The statewide MOU does not require dam owners to give advance notice of sediment releases or to allow sufficient time for the state agencies to evaluate potential environmental impacts nor does it require the notice to dam owners of the existence of the MOU. The Cache la Poudre cooperative agreement will be a pilot study, which will attempt to overcome some of these limitations. A difficult part of this pilot study effort will be to define which dam structures could potentially present a risk to the fishery and aquatic ecosystem.

#### South Platte Lower River Group Activities

he South Platte Lower River Group (SPLRG) was established in 1995 as a grass roots organization to identify and evaluate water resources management and development opportunities in the lower South Platte River basin in Colorado, former Water District 64. Participation in the group includes the Lower South Platte River Water Conservancy District (LSPWCD), the Northern Colorado Water Conservancy District (NCWCD), the Platte River Project (PRP), the Ground Water Appropriators of the South Platte (GASP), the Colorado Water Conservation Board (CWCB), the Colorado Division of Water Resources (DWR), the Division of Wildlife (DOW), and participants from other water conservancy and irrigation districts, ditch companies and cities.

The CWCB initially approved a grant for \$75,000 in 1995, which provided a majority of Based on early the funding for the group. success of the group, the CWCB has subsequently approved grants of \$60,000 for additional general group efforts and \$240,000 specifically for the Tamarack Plan described In addition to CWCB money, the below. LSPWCD, NCWCD, PRP, and GASP each contributed \$5,000 to the group in 1996 and were moneys further 1997. These supplemented by performance of significant inkind services by these and other participating entities.

SPLRG has primarily focused on recharge projects in former District 64 to retime excess flows in the winter and spring so they return at times of need in the summer. Pilot projects have been initiated at the Tamarack and Pony Express Wildlife areas, along the Pawnee ditch, in the Julesburg Irrigation District, and on the Liddle Ditch. In addition to these recharge demonstration projects, several water court applications have either been recently filed or will be filed to allow for additional recharge or storage. Many of these applications are due in large part to SPLRG efforts.

The additional \$240,000 provided from CWCB

funds has allowed continued development of the Tamarack Plan. The Tamarack Plan involves reregulation of river flows through managed groundwater recharge in the lower South Platte River in Colorado with an initial focus on development at DOW Tamarack Ranch and Pony Express State Wildlife Areas. The accretions or return flows to the river from recharge will enhance augmentation for existing uses, provide credit in a Platte River Basin Endangered Species Recovery Program, and provide wetland and water slough habitat for waterfowl and minnow species of concern.

Thus far, one well has been drilled at the Pony Express site and the Tamarack Ranch site. This new well at Tamarack (see Figure 3), in addition to one existing well, is capable of pumping approximately 2,000 gallons per minutes. The wells have been permitted and constructed pursuant to a temporary substitute supply plan issued by the Colorado State Engineer. Approximately 5,350 feet of pipeline has also been purchased and buried to a depth of four feet at the Tamarack site to distribute water from the wells to the recharge ponds and the small stream section where minnow species of concern will be studied and propagated. Monitoring wells have been installed to record and account for the return flows from the recharge efforts. The wetlands development aspect of the Tamarack Plan has been submitted as a project for additional matching through the Colorado Wetlands funding Initiative which is a joint partnership receiving legacy grant dollars from GO-CO (Great Outdoors Colorado). Near term plans are to construct an additional three wells at the Tamarack site.

The SPLRG has also been involved in two annual meetings and two tours. The annual meetings were held in Sterling and provided the opportunity to inform a broad group of water users on current activities. Tours were held for members of the Board of Directors of the Colorado Water Conservation Board in 1996 and for Legislators on the Special Water Committee established by Senate Bill 96-074 in

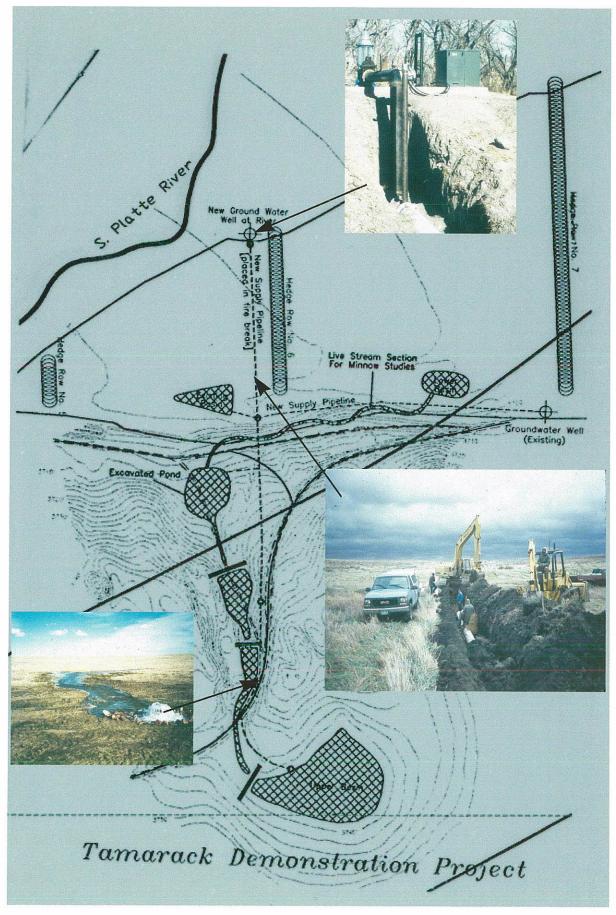
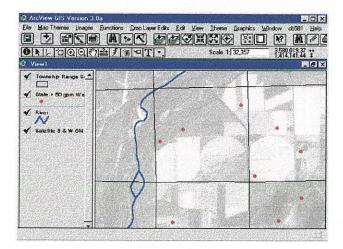


Figure 3

1997. In addition to these activities, the SPLRG group provided input to the report on the South Platte required in Senate Bill 96-074.

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

ne need of Division One and of the South Platte Lower River Group (SPLRG) is the development of a better data base of well information and tools that will help answer questions concerning river depletions and recharge. Computer tools to assist in this effort are being developed by the Integrated Decision Support group (IDS) at Colorado State University. These tools together are called South Platte Map (SPMAP). 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 Water Colorado Conservancy District (NCWCD), the SPLRG group, and the Division of Water Resources (DWR) among others all are expected to be able to utilize these tools, and have access to data needed to better define depletions and replacement. NCWCD, LSPWCD, and SPLRG, DWR, and the Colorado Water Resources Institute (CWRI) have contributed to the development of the



system. The Division of Water Resources has committed staff time and \$18,000 for the purchase of satellite imagery for the whole South Platte basin. Total money commitments

to date by all parties are approximately \$70,000 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 of 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. The computer tools being developed will allow this 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 invaluable tool in the well identification program being carried out in the Division.

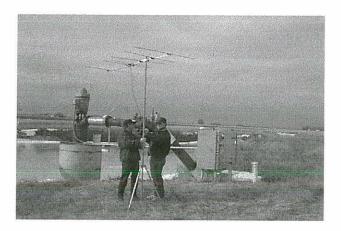
A consumptive use (CU) model is also being developed as a part of the system. The CU model will allow the estimate of consumptive use for individual farms, ditch systems or whole drainage basins. Based on surface supplies, and assuming that a full water supply is provided, the amount of groundwater needed to meet CU can then be calculated. Alternatively. well pumping and CU can be determined through pumping records or power records in combination with well energy/discharge coefficients. The tool will allow CU 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 initial version of the CU model will be completed by the end of 1998.

#### Long Range Plan Goal Progress

he long range plan had several objectives under Goal Three to continuously improve water rights administration and water records by increasing the regulation, data collection, and record keeping of water use. In response to this goal, the Division has made significant improvement in augmentation plan administration moving from 78% administered

in 1994 to 87% administered (384 administered) in 1997. In addition, the Division increased the number of structures that some records were kept for from 2,350 in 1995 to 2,672 in 1997.

#### Well Location Program



ivision 1 continued a program that is being used to locate non-exempt high capacity wells in the Division using Global Positioning System (GPS) units. The initial phase of this project began in former Water District No. 2 near the City of Brighton during the 1996 irrigation season. In addition to continued efforts in District 2 in 1997, the program was expanded to include former Water District 64. Approximately 450 wells in District 2 and 409 wells in District 64 were located to a five-meter accuracy level using the GPS units in 1997. We expect to continue in an organized manner on a section by section basis until we have located all wells within the Division. Even with two teams, it is still currently projected that the completion of the entire project will take well over ten years, given the large number of nonexempt wells in the Division. The Division hopes to expand the program by getting other organizations involved in locating wells. Information taken from the GPS program will be used as one source of information in the data base tools being developed by Colorado State University Integrated Decision Support group discussed in another section of this report. Our activities in Districts 2 and 64 identified 46 wells which are not being currently augmented, over

22 wells which need to be plugged, and many wells which were incorrectly located.

#### SB-74

he Division of Water Resources and Colorado Water Conservation Board (CWCB) worked on a technical study of the South Platte River Basin and groundwater in the Denver Basin aguifers. The General Assembly authorized the study in Senate Bill 96-74, which also established a special legislative committee to oversee the study and make recommendations to the legislature. Senate Bill 96-74 was initiated in response to concerns about the impacts of groundwater based development in the Denver metro area and Douglas County on water rights and water availability downstream on the South Platte River in accordance with the South Platte River Compact.

In 1997, a legislative tour of the South Platte basin occurred which allowed the legislators to observe the water supply projects and to hear from water users in the basin regarding their water supply concerns. issues and Hydrosphere was the consultant that performed several of the tasks associated with the project. A draft report was completed and peer review groups have been given the opportunity to review and comment on the draft report. Based upon the peer review and public hearing comments, the report will be finalized. A final report will be submitted to the legislature in 1998.

#### Cherry Creek Basin Management Plan

he Division continued its participation in a Cherry Creek basin management plan. The participants in the plan include the major water appropriators in the Cherry Creek basin above Cherry Creek Reservoir. The goal of the participants is to maximize the legally and physically available water in the basin. They plan to do this by increased communication and

coordination between users in the upper Cherry Creek basin, collection of necessary data and development of computer tools and models to facilitate water management. The main efforts in 1997 have been refinement of a model, which was developed for the basin by the water users.

# ON-GOING ISSUES OR OPERATIONS

Platte River Endangered Species Partnership

#### Overview

he states of Nebraska, Wyoming, and Colorado, and the U.S. Department of the Interior (Interior) have entered into a partnership to address endangered species issues affecting the Platte River Basin. The initiative has two main purposes:

- 1. To develop and implement a "recovery implementation program" (Program) to improve and conserve habitat for four threatened and endangered species that use the Platte River in Nebraska: the whooping crane, piping plover, interior least tern, and pallid sturgeon.
- 2. To enable existing and new water uses in the Platte River Basin to proceed without additional actions required (beyond the Program) for the four species under the Endangered Species Act (ESA).

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

Over the next three years, an evaluation will be conducted of the impacts of the proposed Program and a range of alternatives, as

required under the National Environmental Policy Act (NEPA). At that point, the parties intend that a final Program will be selected and they will enter into an agreement for its implementation.

#### The Issues

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.



The waters of the Platte River serve the people of Wyoming, Colorado, and Nebraska in many ways. Federal and non-federal water projects in the Platte River Basin, including 15 major dams, provide municipal and industrial water supplies for about 3.5 million people, irrigate millions of acres of farmland, and generate millions of dollars of hydroelectric power. These projects also provide flood control, recreation, and fish and wildlife habitat.

The U.S. Fish and Wildlife Service has concluded that suitable habitat for the target threatened and endangered species in the Central Platte region has been significantly reduced by these water diversions and other factors, such as highway and bridge construction and other changes in land use that have come with extensive settlement throughout the Platte River Basin.

Under the ESA, federal agencies must ensure that the water projects they operate, or for which they provide federal permits or funds, are not likely to jeopardize the continued existence of any threatened or endangered species or to adversely modify critical habitat. If a project is likely to cause adverse impacts, its operation must be modified or other measures undertaken.

Many water projects in the Platte River Basin are now or soon will be undergoing a review of their impacts on endangered species. These projects include the Bureau of Reclamation's North Platte facilities in Wyoming and western Nebraska and the Colorado-Big Thompson Project in Colorado; the Corps of Engineers' reservoirs in the Denver area; and a large number of private water storage and diversion projects, primarily in Colorado, which require permit renewals from the U.S. Forest Service. Also included are the non-federal hydropower projects in Nebraska and Colorado, including Kingsley Dam, which require license renewals the Federal Energy Regulatory Commission (FERC).

The signatories to the Cooperative Agreement believe that the best approach to addressing the Endangered Species Act issues in the Central **Platte** region is а 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.

#### The Proposed Solution

#### Overall Goals

The goals of the cooperative initiative are to implement a Program which will:

- 1. Secure sufficient improvements to the Platte River habitat for the target species so that current and future water use in the Platte River Basin is not likely to jeopardize any of the species.
- 2. Provide compliance with the Endangered Species Act for these existing and any new water uses.

- Help prevent additional species in the Platte River Basin from becoming threatened or endangered.
- 4. Ensure that any impacts on the Central Platte habitat from future water development in each state are prevented or offset within that state.

#### Proposed Program

The proposed Program uses a phased, adaptive management approach to meet the overall goals in which:

- •Initial actions are taken to benefit the target species.
- •The effects of these actions are closely measured over a period of time.
- •Subsequent approaches can be modified or adapted as necessary to meet the overall goals (based on the results of the initial efforts). The long-term objectives for the Program proposed in the Cooperative Agreement are to:
- 1. Provide additional or modified riverflows to and through the Central Platte habitat area. The U.S. Fish and Wildlife Service has identified flow levels they believe are necessary to provide adequate habitat for the endangered species. Existing flows currently fall short of these targets. Interior and the states agree that flow targets will be reviewed and may be modified as new information becomes available.
- 2. Improve habitat through managing, leasing, or acquiring approximately 29,000 acres of suitable habitat between Lexington and Chapman, Nebraska.
- 3. Mitigate or offset any impacts on these habitat improvements that might result from new water-related activities in the basin.

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

A Water Management Committee has been

established, as a part of the cooperative agreement, to develop a scope of work and to oversee the basinwide study that will be done by a consultant to be selected by the Governance Committee. The consultant will look at 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 must establish an 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. The Committee currently meets monthly and the Division One staff attend all meetings as a committee member.

#### Republican River Compact

uring the past year, representatives of Kansas Nebraska. and Colorado discussed compact accounting issues. Several concerns of each state were discussed and resolution was obtained on how consumptive use and well pumpage shall be calculated when pumping records for wells are not available. Maps were developed by all three states that show what each state believes is alluvial valley fill boundaries and also includes the location of wells that they consider as impacting the Compact. There remains a concern that each state does not accept the other state's maps as being correct. If a state does not accept another state's maps as developed, it will be their responsibility to develop a new map of what they believe is correct, if they should so desire. They may also choose to develop their own calculation of what they believe another states compact depletions are if they believe that additional wells, beyond those used by the other state, impact the compact. The three states will also attempt to develop a procedure that will be used by all three states to verify data submitted by the well owners regarding metered data if it is available.

#### US Forest Service/Poudre

he Joint Operating Plan (JOP) that was agreed upon worked well last year and is currently underway again. Several entities located along the front range of Colorado have facilities (structures) which are located on the Forest Service property. They are allowed to operate these facilities based upon special use permits issued and renewed periodically by the U.S. Forest Service. After much negotiation, the City of Greeley, City of Fort Collins, and the Water Supply and Storage Company were able in 1994 to obtain long term easements for their structures in the forest needing permit renewal. This was accomplished by development of the JOP utilizing the combined facilities of the three entities to enhance habitat along the Poudre River within the forest. Specifically, The City of Fort Collins (Joe Wright Reservoir), Water Supply and Storage Company (Long Draw Reservoir and Chambers Lake), and the City of Greeley (Barnes Meadow and Peterson Reservoir) agreed upon an operational scheme using the facilities mentioned to enhance the trout habitat on the mainstem of the Poudre River during critical winter months by releasing 10 cfs from the combined reservoir system. Water Through coordination with the Commissioner, the JOP continued successful operation in 1996. However, the Trout Unlimited organization has challenged in Court the issuance of the permits in the Forest. There has not been a court hearing on this challenge to date.

#### **COURT DECISIONS**

#### Aurora/South Park

he threefold application by the City of Aurora and Park County Sportsmen's Ranch for nontributary water rights, water recharge and storage rights and exchanges has developed into a bitter battle between the applicants and the local objectors. The area involved stretches from Michigan Hill to

southeast of the Town of Como. The application for nontributary water rights in the Laramie-Fox Hills aquifer and the applicant's ground water modeling effort for the South Park aquifer occupied most of the last year.

The most significant development in these cases this year involves the Laramie-Fox Hills aguifer and has implications that reach far beyond this particular application. The local objectors challenged the State Engineer's Office determination that the Laramie-Fox Hills aquifer beneath the subject property contained both nontributary and not-nontributary water pursuant to Senate Bill 5. The local objectors motion sought a ruling that Senate Bill 5 was only applicable to the Denver Basin and thus was incorrectly applied to the Laramie-Fox Hills aquifer in South Park. Judge Hays issued an order in response to this motion agreeing with the local objectors and indicating that Senate Bill 5 only applied to the Denver Basin. Since the Laramie-Fox Hills aguifer exists in a number of locations outside the Denver Basin, this order means we must change the way we analyze well permit and water court applications in However, once Judge Hays these areas. issues a decree in this case sometime after the trial scheduled for April 13 through 17, Aurora is almost certain to appeal the order since it involves a significant amount of water.

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 impact the Supreme Court's Turkey Canon decision had on these applications is discussed below.

#### Turkey Canon & Exempt Wells

Ithough the Turkey Canon Case originated in Division 2, the Supreme Court's ruling in this case related to the legal standing of exempt wells in Water Court is still resonating through the Division 1 Water Court. The basics of the Supreme Court's ruling as it relates to exempt wells are: (A) an exempt well is a vested water right; (B) an exempt well

owner can file a statement of opposition to a water court application; (C) an exempt well owner can only assert an injury claim if he or she has filed for a water right for the exempt well before the statement of opposition was filed; and (D) exempt well owners who filed statements of opposition to cases filed prior to the Turkey Canon ruling should be allowed a reasonable time to file for a water right.

Related to the Turkey Canon decision is the question of whether an exempt well loses its exempt status when it obtains a water right. There is disagreement among the Division 1 water bar on this question. Since this issue is perhaps alluded to, but not directly addressed in the decision, it will probably take another Supreme Court case to obtain a definite answer.

The Division 1 Court has traditionally taken the position that exempt wells may obtain a water right without losing their exempt status. The Division 1 Court has also given exempt well owners standing before the court to assert injury without obtaining or filing for a water right for their well. The Division 1 Court has adjusted to the Turkey Canon ruling by now requiring exempt wells owners to file for a water right before asserting injury in a case. The Court has continued to routinely issue exempt well decrees with 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.

Division 1 had approximately 100 water right applications for exempt wells in 1997. Of these 100 filings, between 50 and 60 can be attributed to the Turkey Canon decision with most of the remainder attributed to the Aurora-South Park filing.

#### FRICO V. Golden

his case involves a dispute between most of the larger municipal, industrial and agricultural users on Clear Creek (The Plaintiffs) and the City of Golden over any

implied volumetric limitations imposed on Golden in two early 1960's change of water right decrees. The basics of the case are 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.

After a two week trial, the Division 1 Water Court dismissed The Plaintiff's complaint after concluding that Golden was only limited by the specific terms in the 1960's decrees. This decision has been appealed to the Supreme Court under case number 97SA343.

#### Denver Exchanges

his case started out as a relatively simple application for a finding of reasonable diligence and to make absolute a portion of several exchanges originally decreed to the Denver Water Board in 1972 under Civil Action 3635 (Probably the last non-Water Court water rights decree in Division 1). The City of Thornton then filed a Statement of Opposition based primarily on water quality injury because two of the exchanges involved treated

wastewater effluent as the substitute supply. This case has now grown into one of the most arduous legal battles in Division 1 with, among other things, Thornton trying to have Denver's exchange decree declared invalid. The reader will hear more about this case in future Division 1 annual reports because, barring a major and highly unlikely change in positions, any decree entered in this case will end-up before the Supreme Court.

#### Golden V. Northglenn

his is an interesting case that will not go to the Supreme Court. The City of Northglenn is the owner of the Church Ditch Company, which is a carrier ditch company rather than a mutual ditch company. Thus, Northglenn asserted that individuals may own "inches" in the ditch, but the company owns the ditch and its associated water rights. While the company has a fiduciary duty to distribute the water based on the inches owned, any "undistributed" water was the property of the company and could be used by the owners. This assertion lies at the heart of the controversy.

In 1983 Northglenn obtained a change of water rights for the inches it then owned in the Church Ditch Company. As part of this change, certain volumetric limits were placed on Northglenn's inches to prevent injury to other water rights. In the period between 1983 and 1996, Northglenn took delivery of its changed inches in accordance with the change decree. However, Northglenn also took delivery "undistributed" water in the ditch and asserted that this water did not count against the volumetric limits on their changed water. When the Water Commissioner discovered this practice in the fall of 1994, he informed Northglenn that this practice was unacceptable. Northglenn disagreed, asserting that, as owners of the ditch, it was their duty to maximize the beneficial use of water under the ditch. This set off a series of meetings between Northglenn and the Division 1 staff in an effort to resolve this dispute.

Meanwhile, many of the other water users on Clear Creek learned of this controversy. December 1996, the City of Golden filed suit against the City of Northglenn claiming that this practice of taking "undistributed" water without counting it against Northglenn's Church Ditch volumetric limits was injuring Golden's water rights. Many of the larger municipal, industrial and agricultural users on Clear Creek also joined this case against Northglenn. This matter was settled with an agreement that Northglenn would stop the practice of taking "undistributed" water, and that only part of the "undistributed" water taken in the 1983 through 1996 period would count against Northglenn's volumetric limits

#### PERSONNEL/WORKLOAD ISSUES

#### Well Administration Activities

n 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. Also, it seems that the number of field inspections required for both registrations of pre-1972 exempt type wells and for non-exempt wells replacements increasing. This may be a 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.

#### Dam Safety

he dam safety engineers in Division One will continue to inspect dams on the 1-2-6 frequency and assist federal agencies. Inspection of outlets will continue at a rate to accomplish all inspections within the 10 year period. Emergency preparedness plans (EPP's) should also be completed for Class 2 Dams. Division staff has completed hydrologic

reviews for all Class 1 Dams and continues efforts toward completing Class 2 Dams.

#### **Administration**

rowth 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 commissioners water lead water in administration. At a later date, work load will eventually have to be reassigned 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. Division One has implemented an intern program during the summer to assist water commissioners in former Water Districts 3 and 4.

#### **Acknowledgement**

would like to acknowledge all the efforts of my staff in 1996 for their dedication to the work of this Division and serving the public in a friendly and helpful manner. I also want to thank each of my Water Commissioners for all their hard work while facing continuing pressures on their time and increasing complex administrative issues.

Mike Eytel was selected for the outstanding new employee. I want to acknowledge the extra effort and initiative that Mike has shown. He is a risk taker, has a great sense of humor, is always willing to help where needed, and got involved in the Wray community.

Denise Paprocki was chosen as the 1997 Water Commissioner of the Year. During the past year, Denise experienced a significant change in her workload as result of an Aurora filing for a storage right, recharge project and an underground storage right. This caused individuals with exempt wells and those that were part of court approved plans for augmentation to be concerned about protecting These individuals and their water supplies. groups filed statements of opposition in water court, applied for water rights in water court and filed for well permits with our office. attended public meetings and responded to continuous telephone calls and office walk in requests for information. She also helped coordinate field investigations to verify use claims made in the well permit applications and court cases regarding these wells and also the well locations. Throughout all this period, she was able to exhibit professionalism and had a sincere willingness to share her knowledge. I received numerous calls and letters from express their people who wanted to appreciation for her hard work and to let me know what a great job she did in providing assistance to them.



I would also like to single out the following individuals for special recognition:

Don Brazelton, Merlin Friedrichsen, Bill Gambrell and John Tipton for their efforts on the Big Thompson and St. Vrain River enforcement activities.

Jim Hall for helping manage Division One in many ways. He is always there to provide

assistance with a grin even when he already has a full workload. In addition he provides significant time towards the efforts of SPLRG and Colorado State University South Platte Map programs.

Rodger Burcher, Jim Clark, Bob Cooper, Merlin Friedrichsen, Brent Schantz, Fred Renner, and George Sievers for all their work at hydrographic stations this year both in repairing existing facilities and constructing new facilities.

Greg Hammer for his willingness to respond to reports of dam emergencies throughout Division One even if the dam was not one of his own. He spent weekends, days off and long nights on some of these dams in order to help the dam owners and county officials to protect the dams involved and reduce damages.

Linda Korf's willingness to help anywhere when needed. When I needed someone to help Dave Nettles in our Resume review process she volunteered to assist him in writing our consultations from Dave's basic notes. She always shows an interest in what's happening in our Division. She has a great sense of humor and is open to change. She takes initiative and recognizes and takes action without being asked.

Les Dalby and Gloria Nelson for their QA/QC efforts on our databases and the diversion records.

Brent Schantz for managing and training the college students that were a part of our well location program. Brent has done an excellent job with coordinating this program and overseeing the quality of the data that we are obtaining.

#### **Runoff Forecast**

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

	USABLE	Voir Storage (1000 A	USABLE STORAGE	- 1000 to 1500 to
RESERVOIR	CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
ANTERO	20.0	6.0	1.0	15.0
BARR LAKE	32.0	23.2	25.3	22.6
BLACK HOLLOW	8.0	3.0	3.0	4.0
BOYD LAKE	49.0	44.0	34.9	33.7
CACHE LA POUDRE	10.0	8.0	8.0	7.2
CARTER	108.9	95.4	81.7	81.6
CHAMBERS LAKE	9.0	5.0	2.5	3.0
CHEESMAN	79.0	69.0	67.0	56.0
COBB LAKE	34.0	19.0	15.5	13.9
ELEVEN MILE	97.8	99.0	100.0	91.0
EMPIRE	38.0	27.2	29.5	22.8
FOSSIL CREEK	12.0	8.0	6.0	6.5
GROSS	43.0	37.0	22.0	26.4
HALLIGAN	6.4	4.5	6.5	3.8
HORSECREEK	16.0	11.0	11.2	12.1
HORSETOOTH	149.7	142.7	127.4	89.0
JACKSON	35.0	4.7	20.4	28.8
JULESBURG	28.0	16.0	16.4	19.9
LAKE LOVELAND	14.0	3.2	9.3	8.8
LONE TREE	9.0	6.8	5.8	6.0
MARIANO	6.0	4.3	5.2	4.5
MARSHALL	10.0	6.5	6.5	4.1
MARSTON	20.0	3.0	0.0	13.8
MILTON	24.0	17.1	14.0	13.8
POINT OF ROCKS	70.0	65.8	59.4	55.0
PREWITT	33.0	11.9	14.2	17.4
RIVERSIDE	63.1	45.2	37.1	40.1
SPINNEY MOUNTAIN	48.7	30.7	31.3	34.6
STANDLEY	42.0	38.8	37.7	25.4
TERRY LAKE	8.0	5.5	5.0	5.1
UNION	13.0	10.6	12.0	10.5
WINDSOR	19.0	12.0	11.0	10.3

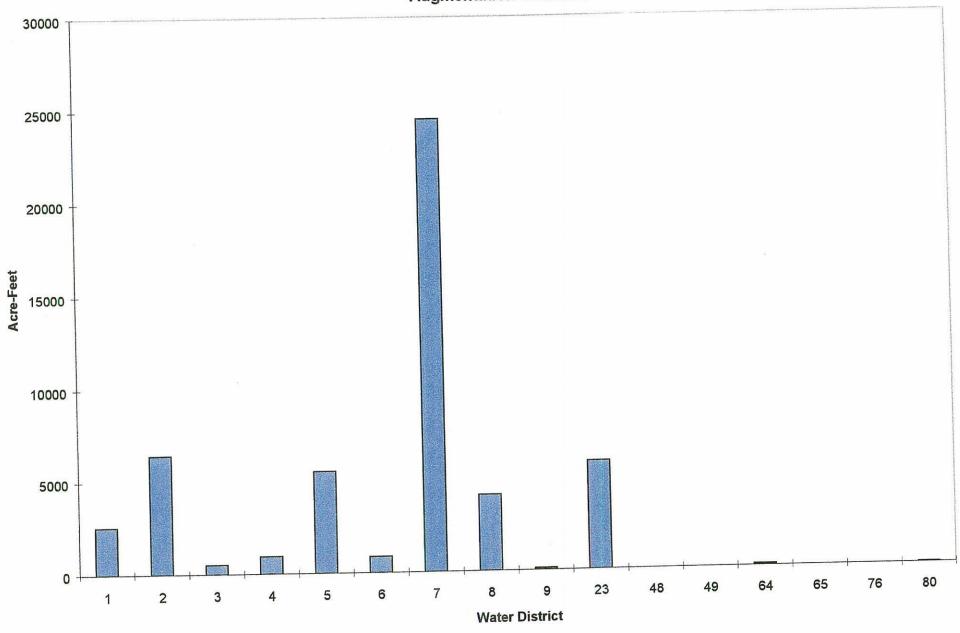
Information taken from Colorado Basin Outlook Report, February 1, 1998.

## SOUTH PLATTE RIVER BASIN WATER SNOWPACK

	×	THIS YEAR AS % OF			
WATERSHED	NUMBER OF DATA SITES	LAST YEAR	AVERAGE		
BIG THOMPSON BASIN	6	59	92		
BOULDER CREEK BASIN	5	65	108		
CACHE LA POUDRE BASIN	8	68	94		
CLEAR CREEK BASIN	4	68	103		
SAINT VRAIN BASIN	3	47	76		
UPPER SOUTH PLATTE BASIN	11	75	112		

<sup>\*</sup>Information taken from Colorado Basin Outlook Report, February 1, 1998.





## 1997 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS (November 1996 - October 1997)

			RECIPIENT							SOURCE
				10 YEA	R AVG	CURREN	IT YEAR			
WD	ID	NAME	STREAM	AF	DAYS	AF	DAYS	WD	ID :	STREAM
3	4604	WILSON SUPPLY DITCH	CACHE LA POUDRE RIVER	1,575	41	1,950	31	48	4604	SAND & DEADMAN CR.
3	4608	DEADMAN DITCH	CACHE LA POUDRE RIVER	411	24	0	0	48	4608	DEADMAN CREEK
3	4606	BOB CREEK DITCH	CACHE LA POUDRE RIVER	0	0	0	0	48	4606	NUNN CREEK
3	4607	COLUMBINE DITCH	CACHE LA POUDRE RIVER	0	0	0	0	48	4607	DEADMAN CREEK
3	4600	LARAMIE-POUDRE TUNNEL	CACHE LA POUDRE RIVER	17,167	106	14,370	62	48	4600	LARAMIE RIVER
3	4605	SKYLINE DITCH	CACHE LA POUDRE RIVER	66	2	0	0	48	4605	LARAMIE RIVER
3	4602	CAMERON PASS DITCH	CACHE LA POUDRE RIVER	65	16	0	0	47	4602	MICHIGAN RIVER
3	4603	MICHIGAN DITCH	CACHE LA POUDRE RIVER	4,067	283	6,220	337	47	4603	MICHIGAN RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUDRE RIVER	20,226	133	17,940	103	51	4601	COLORADO RIVER
								<b>SPHERS</b>	TO THE REAL PROPERTY.	
4	911	EUREKA DITCH	BIG THOMPSON RIVER	40	30	0	0	51	4602	COLORADO RIVER
4	4634	ADAMS TUNNEL	BIG THOMPSON RIVER	232,361	360	229,000	357	51	4634	COLORADO RIVER
6	4655	MOFFAT TUNNEL	SOUTH PLATTE RIVER	52,617	284	50,860	362	51	4655	FRASER RIVER
							<b>BRITISH</b>			
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	856	97	2,610	119	51	4625	FRASER RIVER
7	4626	VIDLER TUNNEL	CLEAR CREEK	742	92	420	49	36	4626	MONTEZUMA CREEK
	F. 17. 14.10	Company of the Compan				10 may 18 mg				
8	653	ROBERTS TUNNEL	SOUTH PLATTE RIVER	64,903	234	53,480	220	36	4684	BLUE RIVER
	Organia (m. 1944) Production (m. 1944)					The second				
23	4611	BOREAS PASS DITCH	SOUTH PLATTE RIVER	83	32	276	77	36	4685	INDIANA CREEK
23	4612	HOOSIER PASS DITCH	ARKANSAS RIVER	10,233	150	8,750	160	36	4683	BLUE RIVER
23	4490	AURORA HOMESTAKE	SOUTH PLATTE RIVER	16,416	164	13,390	119	37	4644	HOMESTAKE CREEK

			SOURCE STREAM	AMOUNT IN STORAGE (AF)						
WD	ID:	RESERVOIR NAME		MÍN	MINIMUM		(IMUM)	END OF YEAR		
				ÅF	DATE	AF	DATE	Section 1		
1	3570	BIJOU #2	SOUTH PLATTE	50	3/31/97	4,780	4/30/97	3,220		
1	3816	EMPIRE	SOUTH PLATTE	19,163	7/31/97	34,932	3/31/97	28,874		
1	3817	JACKSON	SOUTH PLATTE	14,255	11/30/96	27,257	3/31/97	20,900		
1	3651	RIVERSIDE	SOUTH PLATTE	13,866	9/30/97	63,113	3/31/97	14,399		
1	3400	VANCIL	SOUTH PLATTE	2,416	9/30/97	4,688	6/30/97	3,581		
1	3592	HORSE CREEK	HORSE CREEK	9,084	10/31/97	14,643	5/31/97	9,084		
1	3609	PROSPECT	PROSPECT CREEK	34	9/30/97	4,902	3/31/97	3,303		
1		OTHERS		417		2,085		813		
1		TOTALS		59,285		156,400		84,174		

				a secondona	AMOUNT IN STORAGE (AF)					
WD	ID	RESERVOIR NAME	SOURCE STREAM	MI	NIMUM	MAX	END OF YEAR			
				AF	DATE	AF	DATE			
2	3837	OASIS RES/BARR	SOUTH PLATTE	14,500	10/31/97	30,166	6/30/97	14,500		
2	3351	BULL CANAL #8	CLEAR CREEK	1,374	11/30/96	3,855	6/30/97	1,914		
2	3890	COAL RIDGE	LITTLE DRY CREEK	347	4/30/97	784	8/31/97	744		
2	3861	GREAT WESTERN	WALNUT CREEK	1,377	5/31/97	3,337	9/30/97	3,145		
2	3592	HORSE CREEK	SOUTH PLATTE	9,084	10/31/97	14,776	6/30/97	9,084		
2	3902	LORD	SOUTH PLATTE	0	11/30/96	644	4/30/97	114		
2	3858	LOWER LATHAM	SOUTH PLATTE	4,891	8/31/97	6,212	3/31/97	5,834		
2	3876	MILTON	SOUTH PLATTE	0	11/30/96	20,941	4/30/97	16,440		
2	3609	PROSPECT	SOUTH PLATTE	2,977	8/31/97	5,388	6/30/97	3,303		
2	3375	QUINCY	SOUTH PLATTE	1,613	9/30/97	2,782	3/31/97	2,199		
2	3903	STANDLEY	WOMAN CREEK	36,700	11/30/96	42,550	7/31/97	38,619		
2	3700	TANI LAKES COMBINED	SOUTH PLATTE	2,051	4/30/97	5,963	5/31/97	5,077		
2	3699	WEST GRAVEL LAKES COMBINED	SOUTH PLATTE	2,130	11/30/96	2,852	7/31/97	2,721		
2		OTHERS		1,957		3,369		2,671		
2		TOTALS		79,001		143,619		106,365		

4 M.P. (1951)		RESERVOIR NAME			AMOUNT IN STORAGE (AF)						
WD	, ID		SOURCE STREAM	MIN	IIMUM	MA	XIMUM	END OF YEAR			
				AF	DATE	AF	DATE				
3	3774	FOSSIL CREEK	FOSSIL CREEK	4,385	10/31/97	11,020	6/30/97	4,385			
3	3712	HALLAGAN	N FK POUDRE RIVER	2,072	11/1/96	6,428	1/31/97	4,540			
3	3707	INDIAN CREEK/MTN SUPPLY	INDIAN CREEK	1,225	3/31/97	1,906	5/31/97	1,281			
3	3697	NORTH POUDRE #2/DEMMEL LAKE	N FK POUDRE RIVER	2,332	10/31/97	3,443	1/31/97	2,332			
3	3702	NORTH POUDRE #3/HACKEL LAKE	N FK POUDRE RIVER	1,512	11/1/96	2,553	6/30/97	2,242			
3	3704	NORTH POUDRE #4	N FK POUDRE RIVER	692	9/30/97	1,015	6/30/97	692			
3	3698	NORTH POUDRE #5/BEE LAKE	N FK POUDRE RIVER	4,995	4/30/97	5,892	7/31/97	5,584			
3	3716	NORTH POUDRE #15	N FK POUDRE RIVER	2,373	11/1/96	5,207	4/30/97	4,662			
3	3715	PARK CREEK	PARK CREEK	2,564	12/31/97	6,996	6/30/97	6,342			
3	3730	COBB LAKE	CACHE LA POUDRE RIVER	15,630	5/31/97	21,820	6/30/97	19,875			
3	3713	SEAMAN/MILTON SEAMAN	N FK POUDRE RIVER	3,157	12/31/97	4,519	2/2/8/97	4,519			
3	3780	CLAYMORE	CACHE LA POUDRE RIVER	142	11/1/96	843	6/30/97	436			
3	3772	SEELEY	CACHE LA POUDRE RIVER	875	3/31/97	1,101	7/31/97	1,069			
3	3804	WARREN	CACHE LA POUDRE RIVER	1,372	4/30/97	2,228	6/30/97	1,685			
3	3786	WOOD	ROLLARD DRAW	1,334	7/31/97	2,668	6/30/97	2,327			
3	3678	JOE WRIGHT/CAMERON	CACHE LA POUDRE RIVER	2,887	11/1/96	7,116	7/31/97	5,135			
3	3952	RAWHIDE	CACHE LA POUDRE RIVER	13,435	9/30/97	14,435	11/1/96	13,660			
3	3732	HORSETOOTH	DIXON CANYON CREEK	121,160	11/1/96	152,623	6/30/97	128,845			
3	3725	DOUGLASS	CACHE LA POUDRE RIVER	6,408	11/1/96	8,270	6/30/97	6,453			
3	3727	WINDSOR RESERVOIR #8	CACHE LA POUDRE RIVER	4,518	11/1/96	9,484	6/30/97	7,402			
3	3728	NO. 8 ANNEX	CACHE LA POUDRE RIVER	1,527	12/31/96	3,482	6/30/97	2,581			
3	3738	WINDSOR RESERVOIR	CACHE LA POUDRE RIVER	10,009	11/1/96	16,780	6/30/97	11,275			
3	3679	CHAMBERS	JOE WRIGHT CREEK	2,233	3/31/97	8,350	6/30/97	3,864			
3	3676	LONG DRAW/GRAND RIVER	LONG DRAW CREEK	2,268	11/1/96	10,519	6/30/97	5,238			
3		SUBTOTALS		209,105		308,698		246,424			

## WATER DISTRICT 3 (CONTINUED)

		ID RESERVOIR NAME	<b>建设的,这种企业的企业的</b>		A	MOUNT IN STORA	GE (AF)	的复数多种物质	
.WD∵	ID		SOURCE STREAM	MINIMUM		MA	XIMUM	END OF YEAR	
	Mari T			- AF	DATE	AF	DATE		
		BALANCE FROM PREVIOUS PAGE		209.105		308,698		246,424	
3	3744	BLACK HOLLOW	CACHE LA POUDRE RIVER	3,589	6/30/97	5,074	5/31/97	3,855	
3	3735	CURTIS	CACHE LA POUDRE RIVER	524	4/30/97	684	7/31/97	673	
3	3740	KLUVER	CACHE LA POUDRE RIVER	521	2/28/97	827	6/30/97	785	
3	3742	LONG POND/WATER SUPPLY #5,6,7	CACHE LA POUDRE RIVER	2,158	9/30/97	3,029	6/30/97	2,328	
3	3736	ROCKY RIDGE/WATER SUPPLY #1	CACHE LA POUDRE RIVER	3,106	3/31/97	3,544	8/31/97	3,423	
3	3737	WATER SUPPLY #3	LONG POND RESERVOIR	3,362	7/31/97	4,447	5/31/97	3,940	
3	3739	WATER SUPPLY #4	LONG POND RESERVOIR	167	9/30/97	790	6/30/97	167	
3	3805	TERRY/LARIMER WELD	CACHE LA POUDRE RIVER	4,805	11/1/96	8,028	6/30/97	5,411	
3	3726	WORSTER	SHEEP CREEK	87	8/31/97	3,750	5/31/97	400	
3	3775	TIMNATH	DUCK SLOUGH	5,714	7/31/97	10,070	4/30/97	6,110	
3	3770	WINDSOR LAKE	CACHE LA POUDRE RIVER	620	12/31/97	1,167	7/31/97	917	
3	3683	BARNES	BARNES MEADOWS CREEK	939	3/31/97	2,349	6/30/97	2,329	
3	3699	NORTH POUDRE RESERVOIR #6	N FK POUDRE RIVER	7,146	9/30/97	8,673	6/30/97	7,797	
3	3708	MOUNTAIN SUPPLY RESERVOIR #18	BOX ELDER CREEK	511	4/30/97	765	5/31/97	644	
3	3745	DOWDY LAKE RESERVOIR	SOUTH PINE CREEK	800	3/31/97	961	5/31/97	912	
3	3751	SOUTH GRAY RESERVOIR	BOX ELDER CREEK	0	8/31/97	734	3/31/97	435	
3	3686	COMANCHE RESERVOIR	BIG BEAVER CREEK	0	11/1/96	2,629	6/30/97	0	
3		OTHERS		4,395		10,923		6,546	
3		TOTALS		247,549		377,142		293,096	

				<b>计算可能的</b>	AMOUNT IN STORAGE (AF)						
WD	ID .	RESERVOIR NAME	SOURCE STREAM	Mil	NIMUM	MA.	END OF YEAR				
				AF	DATE	AF	DATE				
4	4156	BOULDER & LARIMER/ISH	LITTLE THOMPSON	2,225	12/31/96	7,061	05/31/97	3,648			
4	4110	BOYD LAKE	BIG THOMPSON	34,618	12/31/96	49,048	06/30/97	43,794			
4	4513	CARTER	BIG THOMPSON	61,266	11/30/96	111,316	04/30/97	62,106			
4	4116	DONATH	BIG THOMPSON	315	02/28/97	1,172	08/31/97	1,172			
4	4166	HERTHA RESERVOIR	DRY CREEK HERTHA	1,093	11/30/96	1,703	04/30/97	1,102			
4	4123	HORSETOOTH RESERVOIR	BIG THOMPSON	3,497	11/30/96	8,315	06/30/97	5,991			
4	4487	LAKE LOVELAND	BIG THOMPSON	9,224	12/31/97	12,201	06/30/97	10,633			
4	4136	LON HAGLER	BIG THOMPSON	2,000	03/31/97	5,148	06/30/97	4,496			
4	4137	LONE TREE	BIG THOMPSON	3,530	11/30/96	8,819	06/30/97	7,254			
4	4133	LOVELAND LAKE	BIG THOMPSON	1,349	11/30/96	1,872	10/31/97	1,872			
4	4134	BOEDECKER LAKE/MARINO	BIG THOMPSON	3,942	07/31/97	5,731	03/31/97	4,330			
4	4146	WELCH LAKE	BIG THOMPSON	3,319	03/31/97	6,747	06/30/97	5,924			
4		OTHERS		1,643		2,538		2,166			
4		TOTALS		128,021		221,671		154,488			

			<b>3.12 图表现实现现在是现在是10.2</b>		AN	OUNT IN STOR	AGE (AF)		
WD	iD:	RESERVOIR NAME	SOURCE STREAM	MIN	IIMUM	MA	END OF YEAR		
				AF	DATE	AF	DATE	14 / TE 14 1	
5	4020	BEAVER POND	BEAVER CREEK	599	11/1/96	2,162	6/30/97	1,396	
5	4071	FOOTHILLS	ST. VRAIN	1,295	11/1/96	3,432	4/30/97	2,564	
5	4037	HIGHLAND #1	ST. VRAIN	660	7/31/97	978	4/30/97	824	
5	4032	HIGHLAND #2	ST. VRAIN	2,615	7/31/97	3,695	6/30/97	2,842	
5	4038	HIGHLAND #3	ST. VRAIN	949	7/31/97	1,669	4/30/97	1,341	
5	4073	MCINTOSH	ST. VRAIN	1,281	11/1/96	2,460	4/30/97	1,792	
5	4063	PLEASANT VALLEY	ST. VRAIN	2,586	11/1/96	3,076	4/30/97	3,076	
5	4067	OLIGARCHY RESERVOIR #1	ST. VRAIN	1,471	11/1/96	1,737	4/30/97	1,630	
5	3905	UNION	ST. VRAIN	8,820	7/31/97	12,768	4/30/97	10,023	
5	4076	LEFT HAND PARK	LEFT HAND CREEK	0	11/1/96	1,549	5/31/97	1,269	
5	4488	LEFT HAND VALLEY	LEFT HAND CREEK	1,202	8/31/97	1,626	11/30/96	1,452	
5	4010	BUTTON ROCK	ST. VRAIN	12,878	3/31/97	16,197	5/31/97	16,197	
5	4379	NEW THOMAS	ST. VRAIN	1,745	10/31/97	2,335	4/30/97	1,745	
5	4072	CLOVER BASIN RESERVOIR	ST. VRAIN	530	11/1/96	600	12/31/96	571	
5	4081	LAGERMANN	LEFT HAND CREEK	911	7/31/97	987	2/28/97	958	
5	4065	MCCALL RESERVOIR	ST. VRAIN	348	11/1/96	484	8/31/97	371	
5		TOTALS		37,890		55,755		48,051	

			REPORT OF THE PROPERTY OF THE	<b>在</b> 可能的指数数数	A PARTICIPATION OF THE PARTICI	MOUNT IN STOR	AGE (AF)	
WD	İD	RESERVOIR NAME	SOURCE STREAM	MIN	MINIMUM		MAXIMUM	
				AF	DATE	AF	DATE	
6	4269	ALBION	ALBION CREEK	0	2/28/97	1,111	11/30/96	1,111
6	4172	BARKER	BOULDER CREEK	1,413	4/30/97	11,232	7/31/97	9,778
6	4173	BASELINE	BOULDER CREEK	3,628	12/31/96	5,362	5/31/97	4,657
6	4515	BOULDER	BOULDER CREEK	3,933	11/30/96	11,480	6/30/97	8,147
6	4489	GOOSE	NORTH BOULDER CREEK	0	9/30/97	1,036	5/31/97	0
6	4199	GROSS	SOUTH BOULDER CREEK	15,670	4/30/97	41,365	6/30/97	37,884
6	4178	HILLCREST	BOULDER CREEK	2,037	11/30/96	2,200	5/31/97	2,090
6	4180	LEGGETT	BOULDER CREEK	1,473	11/30/96	1,592	5/31/97	1,512
6	4212	MARSHALL	SOUTH BOULDER CREEK	6,118	11/30/96	9,655	5/31/97	5,686
6	4185	PANAMA	BOULDER CREEK	2,500	7/31/97	4,200	4/30/97	3,500
6	4238	SILVER	NORTH BOULDER CREEK	1,569	4/30/97	3,996	6/30/97	3,996
6	4187	SIX MILE	BOULDER CREEK	800	9/30/97	1,300	4/30/97	800
6	4214	MCKAY LAKE	SOUTH BOULDER CREEK	335	11/30/96	720	5/31/97	390
6	4230	VALMONT	SOUTH BOULDER CREEK	7,037	11/30/96	7,396	5/31/97	7,155
6		TOTALS		46,513		102,645		86,706

	ID .				A	MOUNT IN STORA	GE (AF)		
WD		RESERVOIR NAME	SOURCE STREAM	MII	MINIMUM		MUM	END OF YEAR	
				AF	DATE	AF	DATE		
7	3324	RALSTON	RALSTON CREEK	6,225	1/31/97	10,216	7/31/97	7,985	
7	4459	TUCKER	RALSTON CREEK	50	10/31/97	380	5/31/97	50	
7	3406	COORS B #3	CLEAR CREEK	1,824	4/30/97	2,500	6/30/97	2,500	
7	3407	COORS B #4	CLEAR CREEK	4,000	11/30/96	4,000	11/30/96	4,000	
7	3308	BLUNN	CLEAR CREEK	4,300	11/30/96	5,460	7/31/97	4,900	
7	3702	FAIRMOUNT	CLEAR CREEK	736	4/30/97	984	5/31/97	807	
7	4411	MAPLE GROVE	SOUTH CLEAR CREEK	942	1/31/97	1,139	7/31/97	1,101	
7		OTHERS		1,660		2,948		1,717	
7		TOTALS		19,737		27,627		23,060	

WD	ID	RESERVOIR NAME	SOURCE STREAM	MIN	END OF YEAR			
				ÄF	DATE	AF	DATE	
8	3514	CHATFIELD	SOUTH PLATTE	21.590	6/30/97	27,798	8/31/97	27,032
8	3532	CHERRY CREEK	CHERRY CREEK	12,382	11/30/96	13,440	8/31/97	13,071
8	3832	MCLELLAN	DAD CLARK DITCH	5,032	11/30/96	5,940	5/31/97	5,829
8	3983	STRONTIA SPRINGS DVR DAM	SOUTH PLATTE	6,020	10/31/97	7,404	5/31/97	6,020
8		TOTALS		23,455.59		54,582		51,952

		RESERVOIR NAME	化 自己的特别等的复数形式的复数	AMOUNT IN STORAGE (AF)						
WD	ID.		SOURCE STREAM	MINIMUM		MAXIMUM		END OF YEAR		
riado y il				AF	DATE	AF	DATE			
9	3815	SODA #1, #2	BEAR CREEK	1,268	1/31/97	1,471	6/30/97	1,377		
9	4281	BOWLES	BEAR CREEK	1,272	1/31/97	2,062	4/30/97	1,695		
9	4314	PATRICK	BEAR CREEK	1,054	11/30/96	1,165	2/28/97	1,140		
9	3999	BEAR CREEK RESERVOIR	BEAR CREEK	1,996	3/31/97	2,180	4/30/97	2,071		
9	3501	MARSTON	SOUTH PLATTE	6,670	12/31/96	16,148	6/30/97	9,915		
9		OTHERS		2,252		3,220		2,707		
9		TOTALS		14,512		26,246		18,905		

	ID		SOURCE STREAM		AMOUNT IN STORAGE (AF)							
WD		RESERVOIR NAME		MIN	MINIMUM		MAXIMUM					
				AF	DATE	AF	DATE					
23	3904	ANTERO	S FK SOUTH PLATTE	28	3/31/97	3,994	10/31/97	3,994				
23	3962	MONTGOMERY	MID FK SOUTH PLATTE	743	4/30/97	5,050	7/31/97	4,774				
23	3965	ELEVEN MILE	MID FK SOUTH PLATTE	96,865	10/31/97	102,674	6/30/97	96,865				
23	4013	SPINNEY MOUNTAIN	MID FK SOUTH PLATTE	32,113	3/31/97	53,402	6/30/97	47,460				
23		TOTALS		129,749		165,120		153,093				

10.000 mm. 10.000 10.000 10.000		了。 第二章	SOURCE STREAM	AMOUNT IN STORAGE (AF)						
WD	ID	RESERVOIR NAME		MINIMUM		MAXIMUM		END OF YEAR		
	12,232			AF	DATE	AF	DATE			
64	3552	PREWITT	SOUTH PLATTE	15,020	12/31/96	28,597	5/31/97	18,630		
64	3551	NORTH STERLING	SOUTH PLATTE	24,230	9/30/97	73,580	6/30/97	33,830		
64	3906	JULESBURG	SOUTH PLATTE	10,950	7/31/97	22,230	3/31/97	19,517		
64		TOTALS		50,200		124,407		71,977		

			SOURCE STREAM	AMOUNT IN STORAGE (AF)						
WD	ID :	RESERVOIR NAME		MINIMUM		MAXIMUM		END OF YEAR		
				AF	DATE	AF	DATE			
80	3550	CHEESMAN	S FK SOUTH PLATTE	63,573	4/30/97	79,204	6/30/97	75,090		
80	3829	WELLINGTON	N FK SOUTH PLATTE	3,235	11/30/96	4,399	6/30/97	4,384		
80	3828	ALTURA RESERVOIR	GENEVA CREEK	0	11/30/96	610	6/30/97	0		
80		TOTAL		66,808		84,213		79,474		

#### WATER DIVERSION SUMMARIES

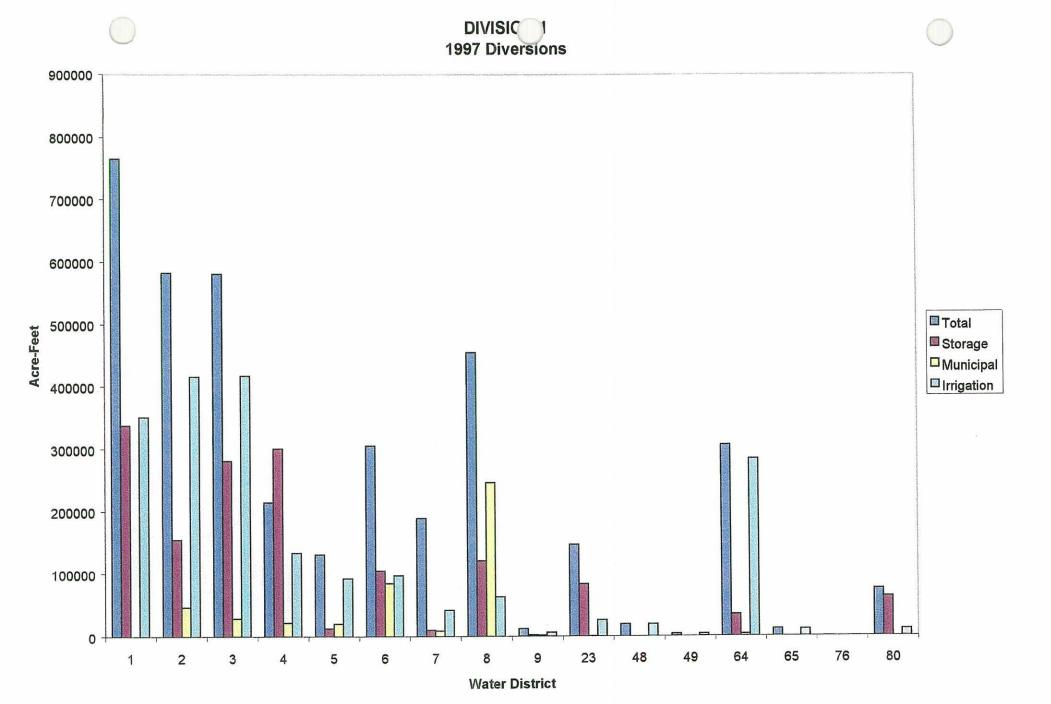
		DITCHES REPORT	TING	OTH	ERS	ESTIMATED		TOTAL	т	O IRRIGATION .	
WD	WITH	NO WATER	NO WATER	NO INFO	NO	NUMBER OF	TOTAL	DIVERSIONS	TOTAL	NO. OF	AVG
	RECORD	AVAIL.	TAKEN	AVAIL.	RECORDS	STRUCTURE	DIVERSIONS	TO:	DIVERSIONS	ACRES	AF PER
						VISITS	(AF)	STORAGE	(AF)	IRRIGATED	ACRE
1	357	9	91	149	4,851	3,458	765,279	337,901	351,215	198,000	1.77381
2	257	4	140	11	4,254	1,244	582,999	155,055	416,566	111,921	3.72196
3	196	0	49	19	2,723	1,905	581,441	281,347	417,970	225,037	1.85734
4	101	0	49	5	1,209	1,423	215,160	301,042	133,539	83,154	1.60592
5	143	0	20	20	1,189	2,580	131,351	12,878	93,173	42,770	2.17847
6	170	0	64	42	1,655	3,650	305,670	105,596	97,529	100,000	0.97529
7	126	0	115	12	1,420	1,419	189,698	10,630	43,102	51,250	0.84101
8	520	15	214	43	5,310	2,367	455,733	121,502	64,010	3,489	18.3462
9	128	0	15	6	1,458	981	12,537	2,649	6,715	1,186	5.66189
23	261	2	126	39	1,252	1,050	147,042	84,071	27,138	8,998	3.016
48	54	0	21	0	71	1,573	19,601	0	19,601	4,996	3.92334
49	6	0	16	0	35	304	4,239	0	4,239	1,500	2.826
64	154	0	36	6	1,715	2,149	306,605	35,540	284,399	136,933	2.07692
65	18	0	17	0	82	0	12,136	0	11,511	4,700	2.44915
76	1	0	37	0	10	0	144	0	144	350	0.41143
80	180	0	1	9	855	0	76,533	64,137	11,495	1,711	6.71829
тот	2672	30	1011	361	28,089	24,103	3,806,168	1,512,348	1,982,346	975,995	2.0311

DISTRICT 9 DITCH VISITS COMBINED WITH DISTRICT 80
DISTRICT 48 DITCH VISITS COMBINED WITH DISTRICT 76
DISTRICT 49 DITCH VISITS COMBINED WITH DISTRICT 65

## ATER DIVERSION SUMMARIES TO VARIOUS USE

WD	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
1	0	0	2	0	10,104	0	0	0	39
2	0	0	47,799	7,813	1,812	0	0	0	0
3	0	0	29,551	0	2,409	0	0	27	0
4	0	0	22,270	53	0	0	0	0	0
5	0	0	20,903	38	0	0	0	34	0
6	0	0	85,002	0	1,167	0	0	0	0
7	0	0	9,571	0	50,043	0	0	0	0
8	0	0	246,588	528	4,729	0	4,491	10,868	31
9	0	0	2,087	19	37	0	0	0	0
23	0	0	499	0	3,040	3,648	0	. 0	405
48	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	0	0	3,735	1,027	0	0	0	8	39
65	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	0	0	100	16	0	0	0	0	84
ТО	0	0	468,107	9,494	73,341	3,648	4,491	10,937	598

VD	AUGMENTATION	EVAPORATION	GEOTHERMA	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
1	2,560	0	0	0	0	0	0	82,312	0
2	6,417	31	0	0	0	0	0	6,079	0
3	515	146	0	0	0	0	0	0	0
4	930	0	0	0	0	168,598	0	0	0
5	5,516	0	0	0	601	0	0	0	0
6	874	0	0	0	12,587	0	0	0	0
7	24,534	596	0	0	0	0	0	0	0
8	4,124	0	0	. 0	0	0	0	1,355	0
9	98	3	0	0	0	0	0	0	0
23	5,879	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	79	0	0	0	0	0	0	14,926	0
65	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	37	0	0	0	0	0	0	0	0
то	51,563	776	0	0	13,188	168,598	0	104,672	0



#### WATER COURT ACTIVITIES Calendar Year 1997

Applications made to water court this year	401
Consultations with Referee this year	
Decrees Issued by Court this year	
Dismissals	
Complaints	

### TYPES OF RULINGS

TYPE OF RULING	NUMBER OF CASES	NUMBER OF STRUCTURES
Findings of Diligence on Conditional Rights	36	85
Cancellations of Conditional Rights	1	1
Conditional Rights Made Absolute	11	24
Surface Water Rights Adjudicated	21	87
Underground Water Rights Adjudicated	109	332
Water Storage Rights Adjudicated	22	44
Plans for Augmentation Adjudicated	41	276
Changes of Water Rights Adjudicated	20	86
Instream Flow Rights Adjudicated	1	1

### CALLING PRIORITY 1996-1997

Date Call	Date Call						Part Comment
Initiated	Released	Structure Name	Appropriatio	Administration	District	Person	Districts
1996-97	1996-97		Date	Number		Placing Call	Affected
11/11/96	12/03/96	Barr Lake	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
12/03/96	12/10/96	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	2,8,9,80,23
12/03/96	12/10/96	Denver Intake	05/01/1899	18018.00000	8	Denver	8,80,23
12/10/96	03/21/97	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80,23
12/10/96	01/01/97	McLellan	09/23/1948	36060.00000	8	Englewood	8
01/01/97	02/10/97	Chatfield	12/28/1977	46748.00000	8	Denver	8
03/21/97	04/01/97	Cheesman Bypass to Intake	12/31/1929	29219.00000	8	Denver	8,80,23
04/01/97	04/21/97	Cheesman	06/27/1889	14423.00000	8	Denver	23
04/01/97	04/21/97	Denver Intake	12/06/1910	22254.00000	8	Denver	8,80
04/21/97	04/24/97	Burlington Direct Bypass to Brantner	11/20/1885	13108.00000	2	Bob Stahl	8,9,80,23
04/22/97	04/24/97	Springdale	07/19/1886	13347.00000	64	Jim Hanrahan	1,2,3,4,5,6,7
04/24/97	05/06/97	Cheesman	06/27/1889	14423.00000	80	Roger Mlodzik	23,80
04/24/97	04/28/97	Marston Reservoir	04/01/1911	22370.00000	8	Denver	8,80
04/28/97	05/06/97	Denver Hudson	11/28/1907	21150.00000	2	Bob Stahl	8,80
05/06/97	05/09/97	Burlington Direct	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
05/08/97	05/19/97	Croke Bypass to Brantner	03/04/1902	19055.00000	2	Bob Stahl	2,7
05/09/97	05/13/97	Cheesman Bypass to Burlington	06/27/1889	14423.00000	8	Denver	8,9,80,23
05/13/97	05/19/97	Denver Intake Bypass to Burlington	05/01/1899	18018.00000	8	Denver	8,9,80,23
05/19/97	05/20/97	O'Brien/Burlington Bypass to Brantner	03/09/1908	21252.00000	2	Bob Stahl	8,9,80,23
05/20/97	05/23/97	O'Brien/Burlington	03/09/1908	21252.00000	2	Bob Stahl	8,9,80,23
05/23/97	05/27/97	Marston Bypass to Burlington	04/01/1911	22370.00000	8	Denver	8,9,80,23
05/27/97	05/29/97	O'Brien/Burlington	03/09/1908	21252.00000	2	Bob Stahl	8,9,80,23
05/29/97	06/03/97	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	8,9,80,23
06/03/97	06/06/97	Marston Bypass to Barr Lake	04/01/1911	21252.00000	2	Denver	8,9,80,23
06/04/97	06/11/97	Cheesman	06/27/1889	14423.00000	8	Denver	23,80
06/06/97	06/07/97	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	8,9,80
06/07/97	06/10/97	Chatfield Reservoir	12/28/1977	46748.00000	8	Denver	8,9,80

CALL RECORD 1996-1997 (CONTINUED)

Date Call	Date Call						
Initiated	Released	Structure Name	Appropriation	Administration	District	Person	Districts
1996-1997	1996-1997		Date	Number		Placing Call	Affected
07/02/97	07/03/97	Marston Bypass to Burlington	04/01/1911	22370.00000	8	Denver	8,9,80,23
07/03/97	07/04/97	Burlington Bypass to Brantner	01/13/1909	21562.00000	2	Bob Stahl	8,9,80,23
07/04/97	07/05/97	Croke Bypass to Brantner	03/04/1902	19055.00000	2	Bob Stahl	7,8,9,80,23
07/05/97	07/07/97	Burlington Bypass to Lower Latham	11/20/1885	13108.00000	2	Bob Stahl	4,5,6,7,8,9,80,23
07/07/97	07/10/97	Burlington Bypass to Brantner	11/20/1885	13108.00000	2	Bob Stahl	7,8,9,80,23
07/10/97	07/13/97	Brantner	01/15/1881	11338.00000	2	Bob Stahl	7,8,9,80,23
07/11/97	07/12/97	Bijou	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6
07/12/97	07/21/97	Springdale	07/09/1886	13349.00000	64	Jim Hanrahan	1,2,3,4,5,6
07/13/97	07/16/97	Fulton	11/05/1879	10901.00000	2	Bob Stahl	2,7,8,9,80,23
07/16/97	07/17/97	Independent	11/20/1876	9821.00000	2	Bob Stahl	2,7,8,9,80,23
07/17/97	07/18/97	Platteville	10/15/1873	8689.00000	2	Bob Stahl	2,7,8,9,80,23
07/18/97	07/19/97	Lupton Bottom	09/15/1873	8659.00000	2	Bob Stahl	2,7,8,9,80,23
07/19/97	07/20/97	Brantner	07/01/1872	8218.00000	2	Bob Stahl	2,7,8,9,80,23
07/20/97	07/21/97	Platteville	10/15/1873	8689.00000	2	Bob Stahl	2,7,8,9,80,23
07/21/97	07/29/97	Harmony #1	04/28/1895	16554.00000	64	Jim Hanrahan	1,64
07/21/97	07/28/97	Bijou	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6
07/21/97	07/22/97	Fulton	07/08/1876	9686.00000	2	Bob Stahl	2,7,8,9,80,23
07/22/97	07/23/97	Meadows #2	12/19/1877	10215.00000	2	Bob Stahl	2,7,8,9,80,23
07/23/97	07/28/97	Fulton	11/05/1879	10901.00000	2	Bob Stahl	2,7,8,9,80,23
07/28/97	07/29/97	Riverside Direct	05/31/1907	20969.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,23,80
07/29/97	07/30/97	Chatfield	12/28/1977	46748.00000	8	Denver	8,9,80,23
07/30/97	07/31/97	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	8,9,80,23
08/25/97	09/25/97	Cheesman	12/31/1929	29219.00000	8	Denver	23,80
09/25/97		Antero	10/08/1907	21099.00000	23	Denver	23
10/02/97	10/16/97	Denver Intake	12/06/1910	22254.00000	8	Denver	8,23,80
10/16/97	12/05/97	Cheesman	12/31/1929	29219.00000	8	Denver	23

## Staffing

Dam Safety Engineers		4
Water Resource Engineers		7
Engineering/Physical Science Techs (Includes 4 Hydrographers)	S	6
Administrative Assistants		2
Full-Time Water Commissioners		13
Permanent Part-Time Water Commissioners		8
Temporary Water Commissioners		2
	TOTAL STAFF	42

## Statistics

Decreed Surface Rights	12,092
Number of Well Permits	119,196
Number of Plans for Augmentation	439
Number of Dams	787
Number of Active Substitute Supply Plans	125
Number of Contacts to give Public Assistance	38,000+