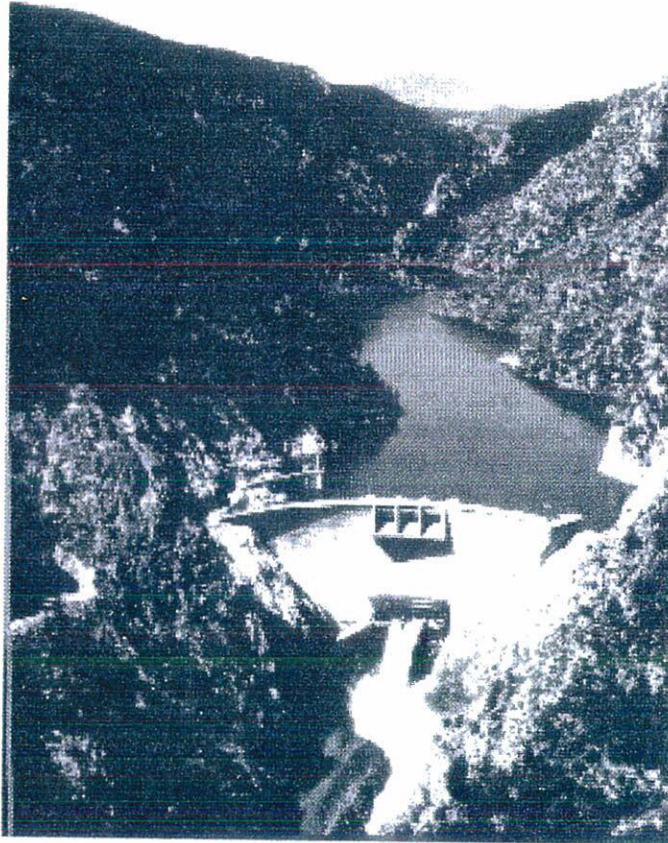


# Division I



# Annual Report

1995 IRRIGATION YEAR

# TABLE OF CONTENTS

## **Current Water Year**

Water Administration	1
Dam Safety	2
Hydrography	3
Groundwater	4
Water Records and Information	5

## **Special On-Going Projects**

Long Range Plan	5
South Platte Water Rights Management System	5
South Platte Well Study	6
Lysimeter Study	7
Metropolitan Water Supply Investigation	7

## **Important On-Going Water Issues**

US Forest Service/Poudre Water Users	7
Flatiron Pumping Station Explosion	8
Diversion Structure Damage	8
Central Platte River Basin Endangered Species Recovery Implementation Plan	8
Centennial Wildlife Refuge	9
Lodgepole Creek Administration	10

## **Important Court Decisions**

City of Longmont	10
Consolidated Home Supply Ditch	10

## **Personnel/Workload Issues**

Well Administration Activities	10
Lower South Platte River Group Investigation	11
South Platte Water Rights Management System	11
Cherry Creek Basin Management Plan	11
Workload Measure Study	12
Dam Safety	12
Personnel	12

## **Water Administration Data Summaries**

Runoff Forecast	13
Augmentation Releases by Districts	14
Transmountain Diversions	15
Storage Summaries	16
Water Diversions	29
Water Court Activities	32
River Call	33

# Current Water Year

## Accomplishments

### Water Administration

The 1995 water year was very unusual. Going into the spring of the year, it looked like it would be a very dry year. During the beginning of April, the calls were very senior, 1866, on a part of the mainstem of the South Platte which indicates that conditions were very dry. In addition, reservoir levels, especially on the tributaries were very low. The two physical conditions concerned Division personnel that there would be drought conditions unless there was significantly above average precipitation the rest of April and May.

During April and May, significant precipitation for approximately a month both in the mountains and on the front range totally reversed the situation making it one of the wettest years. Unlike most years on the South Platte, 1995 was then marked not by shortage and river calls, but instead by very high flows and flooding in some areas. As an indicator, sand dams were never constructed in District 64 as is almost always the case during the summer. In fact, the call on the mainstem of the river downstream of Denver only occurred briefly in the spring and then not until August 8, 1995. This compares to most years when there are only a few days of free river in the spring and summer and to the dry year of 1994 when there was a call continuously through out the irrigation season. Likewise, the calls on tributaries occurred much later and were junior to those experienced during a normal year.

During the high flows, Division 1 staff served as an important clearinghouse of information. Staff from all the major northern cities including Boulder, Fort Collins, Greeley, Loveland, and Longmont, Sterling and Julesburg

coordinated directly with the division commissioners and the Greeley office to obtain flow, snowpack, reservoir storage and other hydrologic information. In addition to flow information, staff experience and the South Platte Water Rights Management System allowed Division staff to provide information concerning expected flows at downstream locations.

In addition to providing cities information, Division staff provided information to other water users. As a specific example, the District 2 water commissioner provided flow information several times each day to the water users near Platteville. These water users were attempting to repair a major levee break that was flooding hundreds



of acres of farm land, a couple of homes, a County Road and a state highway. Division hydrographic staff made several measurements weekly during the flooding to help provide accurate flow information on the South Platte to the Corps of Engineers who were attempting to maintain safe releases from Bear Creek and Chatfield Reservoirs. These structures flooded their recreation areas and some of the later releases from these reservoirs resulted in complaints of too much water being released. The Corps of Engineers has stated that they will reevaluate the capacity of the channel downstream of these reservoirs in the future to determine what can be

released without causing any damage whenever possible.

Division staff also provided information to users concerning sources of financial assistance to repair flood damage. Similarly, the District 64 commissioner, provided baseline information and flow projection information to try to assist in resolving a significant conflict between a major ditch company and the surrounding town concerning the proper course of action to make emergency ditch system repair decisions.

Staff on tributaries also assisted in providing guidance to users to prepare for flooding. In District 5 for example, the division water commissioner coordinated with the users to assure the release of water from Buttonrock reservoir prior to high flow conditions eliminating a large reservoir spill, which when combined with runoff and rainfall events would have created significant flooding in the Lyons area.

The wet conditions and high flows not only effected staff workload but had a major impact on agriculture during 1995. The wet conditions affected the plans of some farmers as they were unable to plant their corn. In contrast,



winter wheat yield was exceptional due to the wet conditions except in areas hit by hail or significant flooding. The wet cool conditions during the spring caused harvest of crops to generally be about two weeks later than usual. The early heavy snow in the spring, spring hails and early fall frosts in parts of the basin caused crop damage to corn, beans and sugar beets in some areas. In other areas of the Division, little damage was experienced on crops and production was normal. The high flows also significantly damaged many diversion

structures within the basin. Staff provided information to users concerning sources of funding to fix structures.



Reservoir storage was not relied upon as heavily as in the past years so when Fall arrived the owners were able to bring many of the reservoirs back up to their winter storage levels earlier than normal. This winters snowpack would seem to indicate that Division One will experience higher than normal spring runoff. It is still to early to really know what will happen because weather patterns can change and the water content could thus change.

#### Dam Safety



**D**ivision dam safety staff were very busy in monitoring the safety of certain reservoirs within the Division during the 1995. Primary safety concerns were associated with the impact of extremely high runoff on reservoirs whose spillways were of questionable adequacy and reservoirs with restrictions already in place. Flow and snowpack information also provided

background for dam safety engineers concerned with monitoring reservoir safety. As a specific example, the division dam safety staff and water commissioner monitored one reservoir in South Park where inflows in excess of safe discharge capacity caused the reservoir to exceed safe storage level restrictions for several days. Despite higher than normal spring runoff, no emergencies developed. One Class III, or LOW hazard dam washed out near Holyoke. Frenchman Creek Dam failed as a result of piping under the spillway structure. Minor flooding occurred below the dam, and no significant damage was reported. The dam is owned by the Colorado Division of Wildlife, and the failure was not reported to DWR until several weeks after the event.

The dam safety branch in Greeley is staffed with four engineers who perform periodic inspections of dams. Under the current "1-2-6" program frequency approximately 270 dams are to be inspected each year. Last year 325 dams were inspected. The hydrologic review of spillways continued, with only two Class I dams remaining to be completed. The evaluation of the 140 Class II dams is well underway. Of this number, 23 are exempted by the deferment of high altitude structures, and 42 do not require evaluation under the current Rules. At the end of the year, 19 of the remaining 75 dams had been evaluated. The projected completion date for the Class II evaluations is 1998. Outlet inspections using the SLED continues as conditions permit.

The semi-annual newsletter continues to be popular among dam owners, and it was nominated for a national award. Circulation has expanded to include limited national distribution among professional agencies and publications.

Several new dams were constructed in the Division. These include the Chase Gulch Dam above Central City, Westminster Dam in Westminster, Woman Creek and Terminal Dam in Broomfield. Several major rehabilitation

projects were also completed or under construction.

### Hydrography



The flows on the South Platte were the highest since 1983. Some of the tributaries were at or near the highest flows on record. Knowing flows at these discharge levels was critical to aid in preparing for possible flooding this year and for having information for future years. To ascertain the flows, our hydrographic staff was kept busy in the field on a continuous basis. New peak flows were measured on the South Platte above Denver. Since the high flows did not necessarily follow a normal workday, division staff measured flows both at night and on weekends. Staff also spent considerable amount of time protecting existing and new stations. Due to the workload, all of the division office staff and many of the division water commissioners also had to help out by flagging traffic or taking notes for the hydrographers. This allowed two or more hydrographic crews to be measuring at the same time.

In addition to measurement, the data from these flow measurements had to be incorporated into stage/flow rating tables and curves. Many of these curves and tables had to be expanded to cover high flow events. Staff also had to be very diligent that all equipment continued to operate with the extreme hydrologic conditions. After the flooding, additional measurements were then necessary to adjust stage/flow relationships where channels had shifted and/or scouring had occurred.

Hydrographers in Division One measured and kept records for 84 gauging stations located throughout the division this year. Streamflow data gathered at gauging stations are the basic information used by water administrators and water users to ascertain the available water supply within the division. Twenty eight of these stations are record stations for which a completed and verified record of water flow is turned in to the United States Geological Survey (USGS) for their publication. The remaining 56 stations are records kept solely by the Division of Water Resources (DWR) and are published separately by the DWR.

Funding was received from the Colorado Water Conservation Board's construction fund once again this year and has allowed the staff to repair and replace several additional stream gages. During the past year, a new concrete shelter was put in place for the Denver Gage located at 19<sup>th</sup> Street on the South Platte River and new stations were constructed at the Waterton gage located above Chatfield Reservoir near the mouth of the canyon for the South Platte River and the Poudre gage located near the mouth of the canyon for the Cache La Poudre River to replace the existing structures at those sites. New data collection platforms (DCP's) were installed at the Western Ditch located near Platteville, the New Cache La Poudre Ditch located near Windsor, one on the river and one for the ditch, and the last one was placed on the Pawnee Ditch located near Merino. In addition, many of the stations in Division One have had satellite monitoring and water recording instruments checked, upgraded, and altered to operate reliably and efficiently. These efforts should improve streamflow data as well as make it easier to operate the stations.

### Groundwater

Denver basin groundwater continues to be a prevalent water supply for development in the southern metro area, including the Cherry Creek and Plum Creek drainages. Usage of Denver Basin water has created declines on the order of 200 to 300 feet of the piezometric head of the Arapahoe formation over the past 3 or 4 years at certain locations. The problem is most critical in the outcrop areas of the Arapahoe formation with some wells going dry or production rates have reduced to levels that requires the owners to construct additional wells to obtain the same amount of water that they could originally withdraw with only one well. Continued use of the Denver Basin aquifer could result in additional water supply problems for wells located in the outcrop areas of the aquifer, with the impact moving to the center of the aquifers over time.

Preliminary efforts have begun to make it possible to put diversion record information from wells in the official diversion database that has historically contained predominantly surface water diversion records. This will allow historical use to be tracked for the wells over time. This is the type of information that is needed as demand for the state's resources become increasingly competitive.

Division staff continue to focus on gravel pit administration in order to bring pit operators into compliance with 1989 Senate Bill 120 provisions. That statute requires that owners and operators of gravel pits must augment stream depletions caused by evaporation from the open water surfaces created by mining activities. There are presently 52 approved gravel pit substitute supply plans in Division One. Gravel pit administration has settled into part of the regular routine for Division One staff. Most of the existing pits have been field inspected, and field and division office personnel continue to

work with pit owners to bring them into compliance without having to initiate formal legal action.

### Water Records and Information

The South Platte Water Rights Management System (SPWRMS) has been developed to increase access to water information, including water rights, diversions, exchanges, and other operations that occur on the river system. Full implementation of this system is currently underway and it is hoped that it will significantly enhance access to water information both by the water commissioners and the water users.

A new water information database called "Hydrobase" is still being developed in a UNIX language environment. This database will contain all existing information currently available through the Division of Water Resources in numerous existing databases.

### Special On-going Projects

#### Long Range Plan

Division I staff provided input to the State Engineer as to how it will meet the objectives outlined in the Colorado Division of Water Resources Long Range Plan Goal 3, Objectives 2-4. Goal 3 describes how the State Engineers Office will continuously improve water rights administration and record keeping. The objectives referenced above are as follows:

- Objective 2: By 1-1-96, each Division Engineer will develop and submit for approval of the State Engineer a specific plan which quantifies achievable targets and due dates for each of the following:
- Increasing the number of accurate water measuring devices on diversion structures.
  - Increasing the number of recording devices on diversion structures.

- Improving and maintaining accurate records of real-time data.
- Administering decreed plans for augmentation, substitute water supply plans and gravel pits.
- Developing and making daily flow information sheets for water districts.
- Expanding records of water.

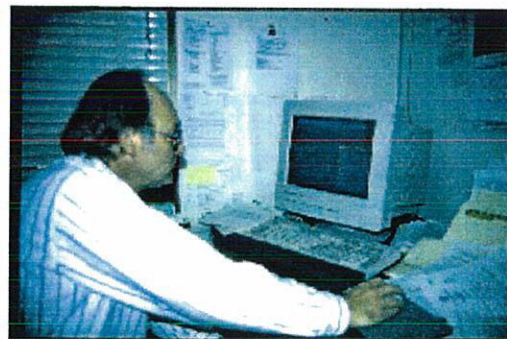
Objective 3: By 1-1-96, each Division Engineer will develop and implement a plan to expand the coverage and accuracy of water supply data by accomplishing the following:

- Reviewing the need for additional hydrographic records and adding additional stations to the satellite monitoring system.

Objective 4: By 1-1-96, each Division Engineer will evaluate the feasibility of determining the following:

- Irrigated Acreage and Cropping Patterns
- Consumptive Use
- Quantifying return flows
- Developing a runoff forecasting tool based on snow surveys

#### South Platte Water Rights Management System



This system has been developed for the South Platte River and its tributaries to provide a tool for water administration, and a tool for water users in making water supply decisions. The project is being developed in conjunction with Colorado University affiliate, CADSWES, with direction and funding from the Colorado

Water Conservation Board and other South Platte water user sponsors.

The Division reached its goal and the Division Long Range Plan goal of assuring that the necessary data development, programming and support was available such that the SPWRMS system was fully operational. Testing was completed on the SPWRMS PC interface which allows two way water commissioner interaction with the application. Commissioners may obtain real time stream flow and can provide, diversion, release, exchange and call information.

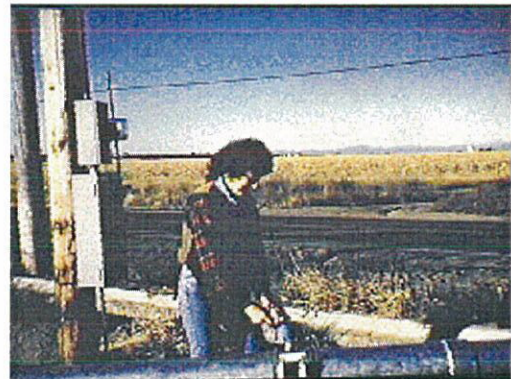
Approximately one half of the Water Commissioners in Division 1 used the South Platte System regularly during the 1995 irrigation year. For these commissioners, use of the system became a part of their every day administration. In some areas, the system allowed for more timely changes of calls and availability of data. In a few districts, the system was not implemented however the water commissioners have been trained in its use. With more widespread use during 1995, minor glitches of the system were discovered and subsequently corrected. In addition, several minor enhancements to the system were implemented. The goal for water year 1996 is to add the remaining commissioners to the system. In addition to DWR use, the Division has an agreement with several of the sponsors to test the system. It is expected that this testing may provide the focus of additional enhancements which are to be developed.

DWR staff have also been contacted by other outside parties including the City of Loveland and Corps of Engineers concerning use of the system. It is anticipated that there will be continued outside interest in the application.

Division 1 staff have also spent time with the CWCB and DWR's staff working on developing the Colorado River Decision Support System. It appears that they plan to copy much of the functionality of the system in the development of the real time

administration tools for the Colorado River. One of our staff will be assigned approximately 85 percent of his time in coordinating the design and implementation of the system. He will also be involved with coordinating what is desired by the West Slope Divisions and making certain that the design consultants develop a tool that will help in the administration of water rights in the west slope. It is felt that the experience of Division One to date in the development of SPWRMS will be of assistance in the design of the water rights management tool for CRDSS.

### South Platte Well Study



The cooperative pilot program to evaluate the accuracy of various methods of measuring well pumping continued in 1995. The agencies cooperating with Division 1 are Ground Water Appropriators of the South Platte (GASP), Central Colorado Water Conservancy District (CCWCD) and Lower South Platte Water Conservancy District (LSPWCD). The field work portion of the study was completed with the last data gathered in November, 1995. Field well efficiency tests were performed on most of the 28 study wells in August, but we were unable to perform the June field efficiency tests because of the unusually wet spring. Either weekly or biweekly data on power consumption, hours of operation and, where available, flow meter readings were collected on each of the study wells for the irrigation



season (July through mid-September in 1995). Preliminary results appear to be consistent with the 1993 and 1994 data with a general agreement in the estimated volume of water pumped using these three data sources for non-surging wells. We had hoped to get the final report out sometime during the spring of 1986, but it now appears that it will not be out until early summer.

### Lysimeter Study

The cooperative small lysimeter-lawn grass return flow study being conducted at CSU is basically complete. The final report \ masters degree thesis has not yet been released, but the cooperating entities (DWR, City of Colorado Springs and Colorado Water Resources Research Institute) have completed their funding of the study. Since all of the equipment is in place, the principal investigators may collect data on varying the irrigation frequency through this (1996) summer, but this is not being funded by the cooperating entities. During the 1995 irrigation season, the study focused on how the frequency of irrigation effects return flow. To determine this, all of the small lysimeters were repacked with a single soil type and some were relocated to one of the four sprinkler zones available to allow the application frequency to be easily varied. Each zone received approximately 100% of potential CU. The frequency variations consisted water application five times per week, three times per week and once a week. The preliminary results indicate that irrigation frequency made some difference in both ET and deep percolation, but still may not explain the large amount of scatter we have seen in the previous "real world" data sets examined.

### Metropolitan Water Supply Investigation

This study was initiated by the governor in 1993 to identify water supply projects that will increase the amount of water available to the growing metropolitan area using existing facilities and options if possible. The study involves a large number of water users from the front range and western slope of Colorado who have come together to investigate the possibilities of procuring water supplies in the metro area. The study examined five main conceptual areas related to the project. The five areas include conjunctive use, effluent management, system integration, metro storage, and interruptible supply options. The study's consultants have performed extensive engineering analyses of those particular projects that have been considered as being the most effective and likely to produce increased water availability. They will determine the benefits that they feel can actually be felt if a particular alternative is eventually implemented. The study is intended for completion in 1996. It is then hoped that the entities in the Metropolitan area will proceed with development of one or more of the alternatives considered during this study.

### Important On-Going Water Issues

#### US Forest Service/Poudre Water Users Joint Operations Plan (JOP)

Several entities located in the front range of Colorado have facilities (structures) which are located on Forest Service property and are allowed to operate 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 to obtain long term easements for their structures

in the forest needing permit renewal in 1994 by development of the joint operations plan utilizing the combined facilities of the three entities to enhance habitat along the Poudre River within the forest. The City of Fort Collins (Joe Wright Reservoir), Water Supply and Storage company (Long Draw Reservoir and Chamber Lake), and 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 which would not normally have been available in past years. Through coordination with the water commissioner, the JOP continued to work well during the winter of 1995, despite the dry conditions last winter and repairs at Horsetooth Reservoir which impacted the City of Fort Collins supply.

#### Flatiron Pumping Station Explosion

An explosion in the fall of 1995 of the Flatiron Pumping station near Carter Lake has temporarily impacted the Colorado Big Thompson (CBT) project's ability to divert water to a portion of its District. The CBT project is a transbasin diversion project which delivers supplemental supplies to farmers, municipalities and others in several of the tributaries and mainstem of the South Platte, all within the Northern Colorado Water Conservancy District (NCWCD). Since the explosion, the Flatiron facility has been unable to pump water up into Carter Lake. While the large amount of carryover of water from last year in Carter Lake helps the situation, the explosion still has forced the NCWCD Board recently to set a Colorado Big Thompson quota at 50% for the southern part of the District system served by Carter Lake. This includes the Little Thompson, Saint Vrain, and Boulder Creek basin and a short stretch of the South Platte downstream of Denver and upstream of the Saint Vrain Creek confluence. This

quota will not effect senior irrigation water rights unless 1996 has less than normal run runoff this year, which at the present time appears to be unlikely.

Unfortunately, some users on irrigation systems with junior water rights, which are dependent upon leasing CBT water, will probably be impacted at some level regardless of how wet a year there is, since they probably will not be able to lease necessary supplies from the northern CBT system. The Bureau of Reclamation, who is responsible for the pumping station, has estimated that it will be September before the pump station will be back in operation.

#### Diversion Structure Damage

Parties continue to repair irrigation structures that were damaged during the high flows of 1995.

Funding to fix all the structures may not be available which could delay the repair of some structures for next year. The Colorado Water Conservation Board has provided some low interest loans and the Natural Resources Conservation Service has provided grants for structure repair. While many of the damaged diversion structures have been repaired or will be repaired prior to next spring, there remains concern over some structures which have not been repaired. In addition, debris left in the river after the high runoff of 1995 is a concern in high flow situations in some places.

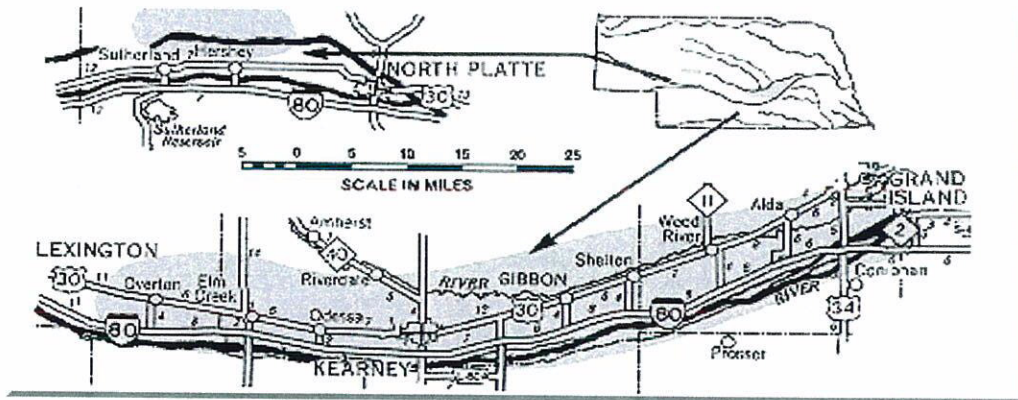
#### Central Platte River Basin Endangered Species Recovery Implementation Plan

The central Platte River in Nebraska provides habitat to three presently listed endangered species, i.e. the whooping crane, the piping plover, and the interior least tern.



The states of Colorado, Nebraska, and Wyoming along with the U.S. Department of the Interior executed a

The parties have been able to agree on the program's broad outlines; however, the most controversial is whether efforts to re-regulate flows will provide sufficient biological benefits for the USFWS to recognize the program as providing the "reasonable and prudent alternative that avoids jeopardy."



Memorandum of Agreement on June 10, 1994 that represents the initial step in an effort to develop a Recovery Implementation Program that will help conserve these federally listed species by protecting designated critical habitat in central Nebraska for the species. Negotiations continue between the three states and the USFWS however the parties still remain far apart.

The recovery and restoration program if agreement can be reached will consist of several major parts. The specifics are still unresolved but a few involve the following: 1) a multiyear commitment to protect and restore the habitat along the 89-mile Big Bend Reach; 2) reoperation of reservoirs and retiming of flows in both the North and South Platte Rivers to provide greater flows when the birds most need them; 3) adaptive management or design of environmental restoration experiments that will allow researchers to test assumptions about the interaction of complex human and natural systems.

### Centennial Wildlife Refuge

In August of 1993, the U.S. Fish & Wildlife Service proposed the establishment of a 15,040 acre national wildlife refuge near Fort Morgan. The USFWS proposed refuge was to be located in the "triangle" between Jackson, Empire and Riverside Reservoirs due to the excellent wildlife habitat that exists in the area. The proposed refuge would be approximately four miles north of Interstate 76 and would cover both sides of the South Platte River including several recharge projects. Many groups expressed concern about the refuge's potential effect on upstream water rights and water quality. Specifically, some felt that the designation could lead to more stringent water quality standards which could effect upstream diverters and others felt it might effect upstream development. After much discussion, the USFWS withdrew its proposal and established a

task force to consider the habitat needs in the propose refuge area.

The task force met several times. This outcome of this effort was to create a local conservation land trust as an alternative to a national wildlife refuge. The members of the trust include local agricultural landowners and representatives from the school district, a ditch company, a water conservancy district, a wildlife group, the Division of Wildlife, an irrigation association and a farm organization. This Trust will use conservation easements to prevent future development that could harm wildlife habitat, or interfere with use of water for irrigation.

#### Lodgepole Creek Administration

The Division sent letters to several well users east of Lodgepole Creek who did not have augmentation. All but one of the users responded and are pursuing becoming a part of the Lower South Platte Water Conservancy District Substitute Water Supply Plan. Division staff are working to bring the last user into compliance.

#### Important Court Decisions

City of Longmont - 87CW215, 87CW216, 87CW218, 87CW219, 87CW220, 87CW221

The City of Longmont successfully transferred several of their ditch rights on Saint Vrain Creek. The transfer would allow the diversion of the water at several intake points and storage of the rights in Buttonrock Reservoir. The City is continuing to work toward the transfer of its Union Reservoir water, but conflicts remain between the City and the other stockholders in the reservoir.

#### Consolidated Home Supply Ditch & Reservoir Co. v. Town of Berthoud (93SA307)

The Supreme Court upheld that Berthoud has the first priority for all uses based upon the consistent treatment of Berthoud's water right by the Division Engineer as being the first priority as a result of a State Engineer's decision in 1944. The water court held that Berthoud had abandoned its 3.0 cfs right during the winter months and the Supreme Court remanded the case to the water court with directions to make factual findings and conclusions of law on the issue of abandonment.

#### Personnel/Workload Issues

##### Well Administration Activities

During 1995 water commissioners were required to participate in the well construction observation program. The program had problems of timely notice both from the well drillers and internally between the Denver Office and the Greeley. The need for copies of the permits in the hands of the water commissioners further complicated the communication and timeliness of our field observation program. It was decided by the Colorado Water Well Contractors Association that the program was getting the desired results and thus it was decided to discontinue the program. I have asked my water Commissioners to make random stops at drill sites when they have time and to observe if the well permit is on the drill rig and to look for any other rules infractions that they may have a knowledge including drilling the well at the incorrect location shown on the well permit.

### Lower South Platte River Group Investigation

Late in 1995, the Colorado Water Conservation Board approved a grant of \$75,000 to identify and evaluate water resources management and development opportunities in the lower South Platte River basin in Colorado, former Water District 64. In addition to Conservation Board money, the Lower South Platte River Water Conservancy District, the Northern Water Conservancy District, the Platte River Project, and the Ground Water Appropriators of the South Platte each contributed \$5000 toward the investigation. These monies will be supplemented by performance of significant in kind services by the participants in the investigation. Division personnel have participated and will continue to participate in the investigation. The estimated original study length is anticipated to be 2 years. The investigations will include hydrologic analysis and database development, identification of potential management and development opportunities, on-site field work including pilot or demonstration projects, and establishment of a process for feasibility studies and long-term funding. Most likely, the group will focus specifically on recharge projects in District 64 to retine excess flows in the winter and spring so that they return at times of need in the summer.

### South Platte Water Rights Management System

Contracts have or will be implemented with CADSWES to finish documentation and provide minor enhancements to the system. A principal enhancement will be to allow data from the system to be input into a PC point flow model which has been developed by the Northern Colorado Water Conservancy District. DWR staff and CADSWES have been coordinating with Northern to allow this interaction.

As part of the new contract, CADSWES is also completing an enhancement to allow the application to read text files as a source of data for the Water Information Sheets. This will allow outside users to provide real time information which can be automatically imported into the system once verified.

A third area of improvement will be of the PC Communications package. Since the inception of the project, there have been many industry changes in communication, the primary being the expanded use of the INTERNET. The goal would be to modify communications to take advantage of these changes including allowing access to the system through the INTERNET. This will extend the useful life of the system by making it more flexible, and may decrease the cost of long distance telephone calls into the system.

Most important, the programmers documentation will be completed this year and updates to the users and data documentation will be completed. Finally, the contract provides for continued support and maintenance and several other minor enhancements to the system that have been identified during its use to increase the utility of the existing system.

DWR presently plans to hire a programmer whose responsibilities include maintenance of the developed system. DWR staff are working on other revision control and cost recovery issues in order to maintain this system long term.

### Cherry Creek Basin Management Plan

The Division began participation late in 1995 and plans to continue participating in a Cherry Creek basin management plan. The potential participants in the plan include the City of Aurora, East Cherry Creek Water and Sanitation District, the Arapahoe Water and Sanitation District, the Cottonwood Water and Sanitation District, the Parker Water and Sanitation District,

the Colorado Department of Parks and Outdoor Recreation, and the Division of Water Resources. The goal of the participants is to maximize the legally and physically available water in the basin 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 Division believes that the plan will allow for better administration in the basin and potentially will reduce conflict amount participants.

#### Workload Measure Study

**D**ivision staff are participating in a workload measures project for water commissioners. Determination of workload measures will assist the State Engineer in providing information to the legislature concerning existing staff use and necessity of new staffs. The project will also better define what staff does within the various basins in the state. The group plans to focus on diversion records and other information which is available in trying to develop workable measures of historic and present workload.

#### Dam Safety

**T**he dam safety engineers in Division One plan to 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 should complete hydrologic reviews for all Class 1 dams and continue efforts toward completing Class 2 dams.

#### Personnel

**T**he major impacts stemming from growth in the South Platte Basin has had significant impacts on water resource administration. One area where administration has been most affected has been in the complexity of new decrees and plans for augmentation. These items have resulted in increased overtime hours for water commissioners and staff. Since most water commissioners are already overtaxed for time Division One has asked that 1 1/2 additional full time employees (FTE's) be funded by the legislature. It is envisioned that 1/2 FTE would be combined with a 1/2 FTE already existing as a part time deputy water commissioner in District 7 (Clear Creek). This person would be expected to provide accounting expertise and work in the field in the Denver metro area and the adjacent foothills. This same person would be expected to help in water rights accounting in the Denver Office of the Division Engineer. In the northern region of the front range a full time FTE would be utilized in administration complex decrees such Thornton, Ft Collins and other decrees of Greeley, Loveland, and Longmont.

## Runoff Forecast

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

RESERVOIR	USABLE CAPACITY	USABLE STORAGE		AVERAGE
		THIS YEAR	LAST YEAR	
ANTERO	20.0	6.0	14.0	15.0
BARR LAKE	32.0	28.2	23.7	24.2
BLACK HOLLOW	8.0	3.0	0.0	4.0
BOYD LAKE	49.0	31.8	15.0	33.8
CACHE LA POUFRE	10.0	8.5	5.0	7.6
CARTER	108.9	79.5	90.0	90.8
CHAMBERS LAKE	9.0	5.0	1.5	3.2
CHEESMAN	79.0	73.0	49.0	55.5
COBB LAKE	34.0	15.5	7.0	13.9
ELEVEN MILE	97.8	99.0	99.0	91.0
EMPIRE	38.0	26.0	27.9	26.3
FOSSIL CREEK	12.0	9.0	10.0	7.2
GROSS	43.0	24.0	15.0	25.7
HALLIGAN	6.4	6.0	3.5	4.5
HORSECREEK	16.0	12.6	13.4	13.2
HORSETOOTH	149.7	140.6	129.6	100.7
JACKSON	35.0	19.3	25.4	30.5
JULESBURG	28.0	17.1	15.5	20.1
LAKE LOVELAND	14.0	9.5	9.8	8.8
LONE TREE	9.0	6.7	7.1	6.2
MARIANO	6.0	4.3	3.9	4.6
MARSHALL	10.0	6.2	4.1	4.5
MARSTON	20.0	17.0	14.0	13.9
MILTON	24.0	17.8	16.7	14.8
POINT OF ROCKS	70.0	66.3	60.3	62.5
PREWITT	33.0	22.3	11.5	19.5
RIVERSIDE	63.1	45.7	52.6	47.6
SPINNEY MOUNTAIN	48.7	32.7	28.9	---
STANDLEY	42.0	39.0	26.8	26.6
TERRY LAKE	8.0	5.0	5.0	5.2
UNION	13.0	11.4	4.4	10.6
WINDSOR	19.0	12.5	11.0	11.0

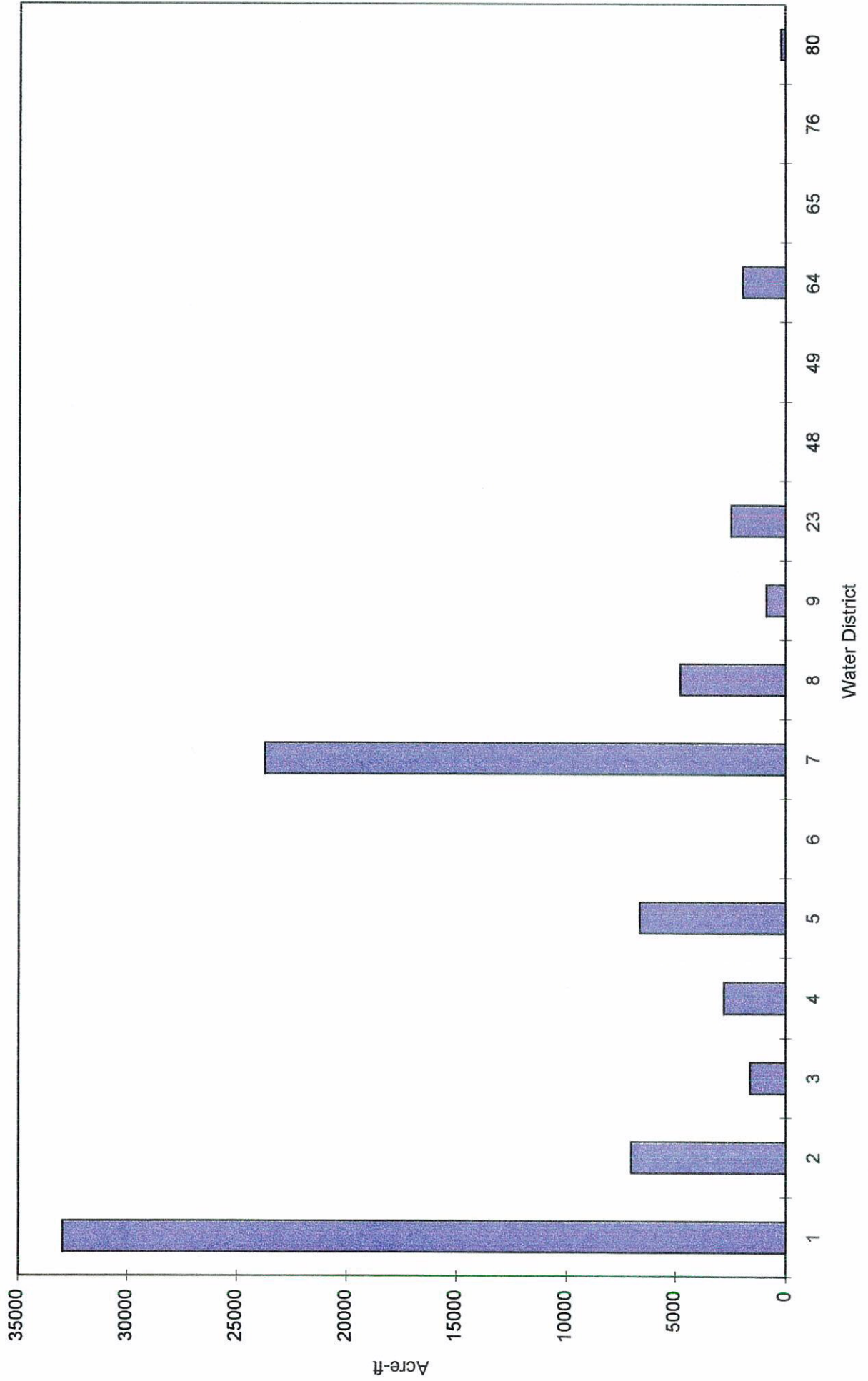
Information taken from Colorado Basin Outlook Report, March 1, 1996.

### SOUTH PLATTE RIVER BASIN WATER SNOWPACK

WATERSHED	NUMBER OF DATA SITES	THIS YEAR AS % OF		MOST PROBABLE STREAMFLOW FORECAST APRIL-JULY (% OF AVERAGE)
		LAST YEAR	AVERAGE	
BIG THOMPSON BASIN	6	203	155	160
BOULDER CREEK BASIN	5	263	184	---
CACHE LA POUFRE BASIN	8	221	141	145
CLEAR CREEK BASIN	4	187	160*	---
SAINT VRAIN BASIN	3	334	200	171
UPPER SOUTH PLATTE BASIN	11	138	126*	---

\*Information taken from Colorado Basin Outlook Report, March 1, 1996

**DIVISION 1  
1995 Augmentation Releases**





## TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS

		RECIPIENT										SOURCE			
WD	ID	NAME	STREAM	10 YEAR AVG		CURRENT YEAR		WD	ID	STREAM	WD	ID	STREAM		
				AF	DAYS	AF	DAYS								
3	4604	WILSON SUPPLY DITCH	CACHE LA POUVRE RIVER	1510	39	978	22	48	4604	SAND & DEADMAN CR.					
3	4608	DEADMAN DITCH	CACHE LA POUVRE RIVER	411	22	0	0	48	4608	DEADMAN CREEK					
3	4606	BOB CREEK DITCH	CACHE LA POUVRE RIVER	0	0	0	0	48	4606	NUNN CREEK					
3	4607	COLUMBINE DITCH	CACHE LA POUVRE RIVER	0	0	0	0	48	4607	DEADMAN CREEK					
3	4600	LARAMIE-POUVRE TUNNEL	CACHE LA POUVRE RIVER	18001	106	10260	63	48	4600	LARAMIE RIVER					
3	4605	SKYLINE DITCH	CACHE LA POUVRE RIVER	2205	3	0	0	48	4605	LARAMIE RIVER					
3	4602	CAMERON PASS DITCH	CACHE LA POUVRE RIVER	97	18	0	0	47	4602	MICHIGAN RIVER					
3	4603	MICHIGAN DITCH	CACHE LA POUVRE RIVER	3224	223	5900	363	47	4603	MICHIGAN RIVER					
3	4601	GRAND RIVER DITCH	CACHE LA POUVRE RIVER	20369	134	20080	103	51	4601	COLORADO RIVER					
4	911	EUREKA DITCH	BIG THOMPSON RIVER	40	30	0	0	51	4602	COLORADO RIVER					
4	4634	ADAMS TUNNEL	BIG THOMPSON RIVER	245640	359	225000	365	51	4634	COLORADO RIVER					
6	4655	MOFFAT TUNNEL	SOUTH PLATTE RIVER	60456	345	24670	327	51	4655	FRASER RIVER					
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	770	100	815	71	51	4625	FRASER RIVER					
7	4626	VIDLER TUNNEL	CLEAR CREEK	724	96	760	57	36	4626	MONTEZUMA CREEK					
8	653	ROBERTS TUNNEL	SOUTH PLATTE RIVER	55282	186	52530	225	36	4684	BLUE RIVER					
23	4611	BOREAS PASS DITCH	SOUTH PLATTE RIVER	69	30	0	0	36	4685	INDIANA CREEK					
23	4612	HOOSIER PASS DITCH	ARKANSAS RIVER	10570	149	5120	152	36	4683	BLUE RIVER					
23	4490	AURORA HOMESTAKE	SOUTH PLATTE RIVER					37	4644	HOMESTAKE CREEK					

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 1

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE	AF	DATE
1	3570	BIJOU #2	SOUTH PLATTE	0	03/31/95	5020	09/30/95	3900	
1	3816	EMPIRE	SOUTH PLATTE	6953	11/30/94	37292	03/31/95	17459	
1	3817	JACKSON	SOUTH PLATTE	7132	11/30/94	27257	04/30/95	18287	
1	3651	RIVERSIDE	SOUTH PLATTE	12529	09/30/95	63113	03/31/95	26018	
1	3400	VANCIL	SOUTH PLATTE	1627	09/30/95	4934	06/30/95	3521	
1	3592	HORSE CREEK	HORSE CREEK	1404	11/30/94	15222	06/30/95	7681	
1	3609	PROSPECT	PROSPECT CREEK	0	10/31/95	5103	06/30/95	0	
1		OTHERS		3		2436		919	
1		TOTALS		29648		160377		77785	

## 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	4750	11/01/94	31000	05/01/95	10800	
2	3351	BULL CANAL #8	CLEAR CREEK	665.99	10/01/95	3927.32	08/01/95	923.19	
2	3890	COAL RIDGE	LITTLE DRY CREEK	0	11/01/94	696	06/01/95	0	
2	3861	GREAT WESTERN	WALNUT CREEK	1261	04/01/95	3157	08/01/95	3062	
2	3878	HORSE CREEK	SOUTH PLATTE	1404	12/01/94	15222	05/01/95	7681	
2	3902	LORD	SOUTH PLATTE	89	09/01/95	486	08/01/95	111	
2	3858	LOWER LATHAM	SOUTH PLATTE	6212	04/30/95	6212	04/30/95	6212	
2	3876	MILTON	SOUTH PLATTE	4500	10/31/95	22674	05/01/95	4500	
2	3877	PROSPECT	SOUTH PLATTE	0	10/31/95	5370	06/01/95	0	
2	3375	QUINCY	SOUTH PLATTE	2174	09/01/95	2723	06/01/95	2335	
2	3903	STANDLEY	WOMAN CREEK	26833	03/31/95	42268	08/01/95	40790	
2	3700	TANI LAKES COMBINED	SOUTH PLATTE	1475.03	10/31/95	2736.56	05/31/95	1475.03	
2	3699	WEST GRAVEL LAKES COMBINED	SOUTH PLATTE	2463.01	03/31/95	2878.55	01/31/95	2840.13	
2		OTHERS		1575.52		3485.18			
2		TOTALS		53402.55		142835.61		80729.35	

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 3

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				END OF YEAR	
				AF	DATE	MINIMUM	MAXIMUM		DATE
3	3774	FOSSIL CREEK	FOSSIL CREEK	4361	11/01/94		10857	04/30/95	6419
3	3712	HALLAGAN	N FK POUUDRE RIVER	525	10/31/95		6428	05/31/95	525
3	3707	INDIAN CREEK/MTN SUPPLY	INDIAN CREEK	811	03/31/95		1906	06/30/95	1887
3	3697	NORTH POUUDRE #2/IDEMMEL LAKE	N FK POUUDRE RIVER	2355	09/30/95		3470	07/31/95	2539
3	3702	NORTH POUUDRE #3/HACKEL LAKE	N FK POUUDRE RIVER	1377	11/01/94		2739	06/30/95	2356
3	3704	NORTH POUUDRE #4	N FK POUUDRE RIVER	395	07/31/95		622	11/01/94	573
3	3698	NORTH POUUDRE #5/BEE LAKE	N FK POUUDRE RIVER	0	02/28/95		5622	06/30/95	5325
3	3716	NORTH POUUDRE #15	N FK POUUDRE RIVER	1265	11/01/94		5362	06/30/95	4532
3	3715	PARK CREEK	PARK CREEK	2231	11/01/94		7090	07/31/95	3986
3	3730	COBB LAKE	CACHE LA POUUDRE RIVER	6932	04/30/95		21100	07/31/95	15700
3	3713	SEAMAN/MILTON SEAMAN	N FK POUUDRE RIVER	2424	04/30/95		4519	05/31/95	2663
3	3780	CLAYMORE	CACHE LA POUUDRE RIVER	300	09/30/95		954	05/31/95	367
3	3772	SEELEY	CACHE LA POUUDRE RIVER	865	10/31/95		1133	04/30/95	865
3	3804	WARREN	CACHE LA POUUDRE RIVER	933	10/31/95		2228	07/31/95	933
3	3786	WOOD	ROLLARD DRAW	1754	11/01/94		2166	10/31/95	2166
3	3678	JOE WRIGHT/CAMERON	CACHE LA POUUDRE RIVER	1186	11/01/94		7094	07/31/95	2324
3	3952	RAWHIDE	CACHE LA POUUDRE RIVER	12131	11/30/94		13255	06/30/95	12385
3	3732	HORSETOOTH	DIXON CANYON CREEK	69247	11/01/94		155218	06/30/95	107982
3	3725	DOUGLASS	CACHE LA POUUDRE RIVER	4107	11/01/94		8220	07/31/95	5255
3	3727	WINDSOR RESERVOIR #8	CACHE LA POUUDRE RIVER	3700	10/31/95		9364	07/31/95	3700
3	3728	NO. 8 ANNEX	CACHE LA POUUDRE RIVER	1198	04/03/95		3430	07/31/95	1096
3	3738	WINDSOR RESERVOIR	CACHE LA POUUDRE RIVER	6851	11/01/94		17598	06/30/95	11123
3	3679	CHAMBERS	JOE WRIGHT CREEK	1246	11/30/94		8184	07/31/95	4671
3	3676	LONG DRAW/GRAND RIVER	LONG DRAW CREEK	832	11/01/94		10519	06/30/95	3014
3		SUBTOTALS		127026			309078		202386

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 3 (CONTINUED)

WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM		AMOUNT IN STORAGE (AF)		DATE	END OF YEAR
				AF	DATE	AF	MAXIMUM		
		BALANCE FROM PREVIOUS PAGE		127026		309078			202386
3	3744	BLACK HOLLOW	CACHE LA POUUDRE RIVER	0	11/1/94	4673	06/30/95		4089
3	3735	CURTIS	CACHE LA POUUDRE RIVER	389	04/30/95	651	09/30/95		640
3	3740	KLUVER	CACHE LA POUUDRE RIVER	571	03/31/95	793	06/30/95		640
3	3742	LONG POND/WATER SUPPLY #5,6,7	CACHE LA POUUDRE RIVER	2093	11/30/94	2999	07/31/95		2433
3	3736	ROCKY RIDGE/WATER SUPPLY #1	CACHE LA POUUDRE RIVER	2805	04/30/95	3565	08/31/95		3303
3	3737	WATER SUPPLY #3	LONG POND RESERVOIR	3234	12/31/94	4241	07/31/95		3306
3	3739	WATER SUPPLY #4	LONG POND RESERVOIR	370	10/31/95	775	07/31/95		370
3	3805	TERRY/LARIMER WELD	CACHE LA POUUDRE RIVER	2470	09/30/95	7530	06/30/95		4805
3	3726	WORSTER	SHEEP CREEK	0	08/31/95	3750	06/30/95		0
3	3775	TIMNATH	DUCK SLOUGH	1300	11/01/94	10070	06/30/95		1925
3	3770	WINDSOR LAKE	CACHE LA POUUDRE RIVER	0	11/01/94	1203	06/30/95		513
3	3683	BARNES	BARNES MEADOWS CREEK	477	04/30/95	2436	07/31/95		2405
3	3699	NORTH POUUDRE RESERVOIR #6	N FK POUUDRE RIVER	0	11/01/94	6525	07/31/95		6525
3	3708	MOUNTAIN SUPPLY RESERVOIR #18	BOX ELDER CREEK	330	08/31/95	803	06/30/95		650
3	3745	DOWDY LAKE RESERVOIR	SOUTH PINE CREEK	567	04/30/95	948	06/30/95		840
3	3751	SOUTH GRAY RESERVOIR	BOX ELDER CREEK	0	08/31/95	734	02/28/95		0
3	3686	COMANCHE RESERVOIR	BIG BEAVER CREEK	0	11/01/94	2616	06/30/95		0
3	3720	BIG BEAVER RESERVOIR	BIG BEAVER CREEK	0	11/01/94	1326	06/30/95		0
3		OTHERS		2193.4		5356.92			
3		TOTALS		143825.4		370072.92			234830

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 4

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				END OF YEAR
				MINIMUM		MAXIMUM		
			AF	DATE	AF	DATE		
4	4156	BOULDER & LARIMER/ISH	LITTLE THOMPSON	465	03/31/95	7061	05/31/95	1755
4	4110	BOYD LAKE	BIG THOMPSON	27281	09/30/95	15149	04/30/95	27640
4	4513	CARTER	BIG THOMPSON	74467	09/30/95	111189	06/30/95	79756
4	4116	DONATH	BIG THOMPSON	553	03/31/95	1153	04/30/95	615
4	4166	HERTHA RESERVOIR	DRY CREEK HERTHA	365	10/31/95	1703	04/30/95	365
4	4123	HORSETOOTH RESERVOIR	BIG THOMPSON	2848	11/30/94	7859	07/31/95	4185
4	4487	LAKE LOVELAND	BIG THOMPSON	9101	10/31/95	12541	04/31/95	9101
4	4136	LON HAGLER	BIG THOMPSON	2807	11/30/94	5108	05/31/95	4058
4	4137	LONE TREE	BIG THOMPSON	3351	09/30/95	9068	05/31/95	4148
4	4133	LOVELAND LAKE	BIG THOMPSON	695	11/30/94	1719	07/31/95	1430
4	4134	BOEDECKER LAKE/MARINO	BIG THOMPSON	2465	08/31/95	5851	05/31/95	3838
4	4146	WELCH LAKE	BIG THOMPSON	3222	03/31/95	6747	07/31/95	5405
4		OTHERS		1355		2552		
4		TOTALS		128975		187700		142296

# 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	402	01/31/95	2150	06/30/95	520	
5	4071	FOOTHILLS	ST. VRAIN	960	11/30/94	3573	05/31/95	977	
5	4037	HIGHLAND #1	ST. VRAIN	341	08/31/95	978	05/31/95	754	
5	4032	HIGHLAND #2	ST. VRAIN	2150	12/31/94	3712	07/31/95	2316	
5	4038	HIGHLAND #3	ST. VRAIN	448	08/31/95	1669	05/31/95	1308	
5	4073	MCINTOSH	ST. VRAIN	920	10/31/95	2408	06/30/95	920	
5	4063	PLEASANT VALLEY	ST. VRAIN	1483	09/30/95	3076	05/31/95	2460	
5	4067	OLIGARCHY RESERVOIR #1	ST. VRAIN	1025	10/31/95	1737	05/31/95	1461	
5	3905	UNION	ST. VRAIN	4018	10/31/94	12768	06/30/95	7580	
5	4076	LEFT HAND PARK	LEFT HAND CREEK	1093.75	10/31/94	1548.7	06/30/95	1191.5	
5	4488	LEFT HAND VALLEY	LEFT HAND CREEK	460.5	10/31/94	1626	06/30/95	1408	
5	4010	BUTTON ROCK	ST. VRAIN	11259.7	04/30/95	16197.2	06/30/95	15801	
5	4379	NEW THOMAS	ST. VRAIN	1701.6	10/31/94	2263.9	06/30/95	2139.3	
5	4081	LAGERMANN	LEFT HAND CREEK	876.7	10/31/94	1016.8	05/31/95	910.6	
5	4065	MCCALL RESERVOIR	ST. VRAIN	254	10/31/94	494	05/31/95	459	
5		TOTALS		27393.25		55217.6		40205.4	

# RESERVOIR STORAGE SUMMARIES BY DISTRICT

## WATER DISTRICT 6

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		DATE	END OF YEAR
				AF	DATE	AF	DATE		
6	4269	ALBION	ALBION CREEK	1111	11/30/94	1111	11/30/94	1111	1111
6	4172	BARKER	BOULDER CREEK	1909	06/30/95	11468	07/31/95	9136	9136
6	4173	BASELINE	BOULDER CREEK	1494	02/28/95	5326	06/30/95	3882	3882
6	4515	BOULDER	BOULDER CREEK	4390	01/31/95	12089	06/30/95	6657	6657
6	4489	GOOSE	NORTH BOULDER CREEK	200	05/31/95	1036	07/31/95	684	684
6	4199	GROSS	SOUTH BOULDER CREEK	19875	11/30/94	15660	04/30/95	37529	37529
6	4178	HILLCREST	BOULDER CREEK	1884	11/30/94	2207	06/30/95	1985	1985
6	4180	LEGGETT	BOULDER CREEK	1360	11/30/94	1600	06/30/95	1435	1435
6	4212	MARSHALL	SOUTH BOULDER CREEK	3474	11/30/94	9750	06/30/95	4820	4820
6	4185	PANAMA	BOULDER CREEK	500	09/30/95	4000	05/31/95	1200	1200
6	4238	SILVER	NORTH BOULDER CREEK	1028	05/31/95	4000	07/31/95	3986	3986
6	4187	SIX MILE	BOULDER CREEK	800	11/30/94	1300	05/31/95	800	800
6	4230	VALMONT	SOUTH BOULDER CREEK	6686	11/30/94	7426	06/30/95	6919	6919
6		TOTALS		44711		76973		80144	80144



# 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	6029	03/31/95	10350	06/30/95	6417	
7	4459	TUCKER	RALSTON CREEK	150	11/30/94	500	05/31/95	180	
7	3406	COORS B #3	CLEAR CREEK	1194	05/31/95	2500	06/30/95	2476	
7	3407	COORS B #4	CLEAR CREEK	3350	11/30/94	4000	07/31/95	4000	
7	3308	BLUNN	CLEAR CREEK	2451	09/30/95	5462	05/31/95	2729	
7	3702	FAIRMOUNT	CLEAR CREEK	768	04/30/95	956	11/30/95	785	
7	4411	MAPLE GROVE	SOUTH CLEAR CREEK	827	02/28/95	1141	04/30/95	1076	
7		OTHERS		1254		2933		2003	
7		TOTALS		16023		27842		19666	

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 8

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
8	3514	CHATFIELD	SOUTH PLATTE	20272	09/01/95	48428	07/01/95	20755		
8	3532	CHERRY CREEK	CHERRY CREEK	11797	11/01/94	13474	07/01/95	12908		
8	3832	MCLELLAN	DAD CLARK DITCH	4377.22	11/01/94	5866.27	06/01/95	5083.56		
8	3983	STRONTIA SPRINGS DVR DAM	SOUTH PLATTE	5807	08/01/95	7451	05/01/95	6923		
8		TOTALS		42253.22		75219.27		45669.56		

## RESERVOIR STORAGE SUMMARIES BY DISTRICT

### WATER DISTRICT 9

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				MINIMUM		MAXIMUM		END OF YEAR	
				AF	DATE	AF	DATE	AF	DATE
9	3815	SODA #1.#2	BEAR CREEK	1036	08/31/95	1667	07/31/95	1655	
9	4281	BOWLES	BEAR CREEK	1284	01/31/95	2096	04/30/95	2011	
9	4314	PATRICK	BEAR CREEK	1061	11/30/94	1165	04/30/95	1141	
9	3999	BEAR CREEK RESERVOIR	BEAR CREEK	1959	03/31/95	2691	06/30/95	2032	
9	4310	MARSTON	SOUTH PLATTE	13543	03/31/95	19428	05/31/95	15409	
9		OTHERS		1762		3140			
9		TOTALS		20645		30187		22248	

**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	19928	08/31/95	25616	06/30/95	20059		
23	3962	MONTGOMERY	MID FK SOUTH PLATTE	202	05/31/95	5851	08/31/95	4169		
23	3965	ELEVEN MILE	MID FK SOUTH PLATTE	96630	11/30/94	102918	06/30/95	99658		
23	4013	SPINNEY MOUNTAIN	MID FK SOUTH PLATTE	33885	02/28/95	53651	06/30/95	41746		
23		TOTALS		150645		188036		165632		

**RESERVOIR STORAGE SUMMARIES BY DISTRICT**

**WATER DISTRICT 64**

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						END OF YEAR
				MINIMUM		MAXIMUM		DATE	DATE	
				AF	DATE	AF	DATE			
64	3552	PREWITT	SOUTH PLATTE	7456	11/30/94	28600	05/31/95	18252		
64	3551	NORTH STERLING	SOUTH PLATTE	9820	09/30/95	74876	04/30/95	18922		
64	3906	JULESBURG	SOUTH PLATTE	5372	08/31/95	22521	04/30/95	19378		
64		TOTALS		22648		125997		56552		

# 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	AF	DATE	
80	3550	CHEESMAN	S FK SOUTH PLATTE	48971	02/28/95	80514	06/30/95			77096
80	3829	WELLINGTON	N FK SOUTH PLATTE	2427	11/01/94	4399	05/30/95			4399
80	3828	ALTURA RESERVOIR	GENEVA CREEK	90	11/30/94	610	06/30/95			290
80		TOTAL		51488		85523				81785

### WATER DIVERSION SUMMARIES

WD	DITCHES REPORTING			OTHERS			ESTIMATED NUMBER OF DITCH VISITS	TOTAL DIVERSIONS (AF)	TOTAL DIVERSIONS TO STORAGE	TO IRRIGATION		
	WITH RECORD (1)	NO WATER AVAIL. (2)	NO WATER TAKEN (3)	NO INFO AVAIL. (4)	NO RECORDS	TOTAL DIVERSIONS (AF)				NO. OF ACRES IRRIGATED	AVG AF PER ACRE	
1	282	30	87	130	4791	2315	825541	373250	293218	198225	1.48	
2	238	2	137	8	4187	1288	546302	125853	439748	232831	1.89	
3	177	0	50	17	2693	1993	579319	330677	395790	230538	1.72	
4	99	13	35	14	1177	1487	203446	349479	113995	73384	1.55	
5	134	0	27	15	1188	2152	129331	35385	85413	42231	2.02	
6	173	0	61	65	1642	4144	239702	84154	80756	100331	.8	
7	100	0	127	16	1405	1584	200563	10016	57408	51250	1.12	
8	437	1	185	44	5037	2125	409720	87311	74300	9780	7.60	
9	94	0	7	16	1442	314	13636	5006	5875	2000	2.94	
23	235	2	128	6	1189	1040	113069	64656	32465	9565	3.39	
48	56	0	27	0	70	1624	18349	0	18349	4676	3.92	
49	7	0	16	0	37	2052	3933	0	3933	1555	2.53	
64	136	2	22	21	1712	1686	273347	34452	242812	136994	1.77	
65	17	0	17	0	81	0	9522	376	7041	4720	1.49	
76	1	0	0	0	9	0	385	0	385	350	1.10	
80	164	0	41	19	846	0	64431	51909	12364	1914	6.46	
TOT	2350	50	967	371	27506	23804	3630596	1552524	1863852	1100344	41.78	

DISTRICT 9 DITCH VISITS COMBINED WITH DISTRICT 80

DISTRICT 48 DITCH VISITS COMBINED WITH DISTRICT 76

DISTRICT 49 DITCH VISITS COMBINED WITH DISTRICT 65

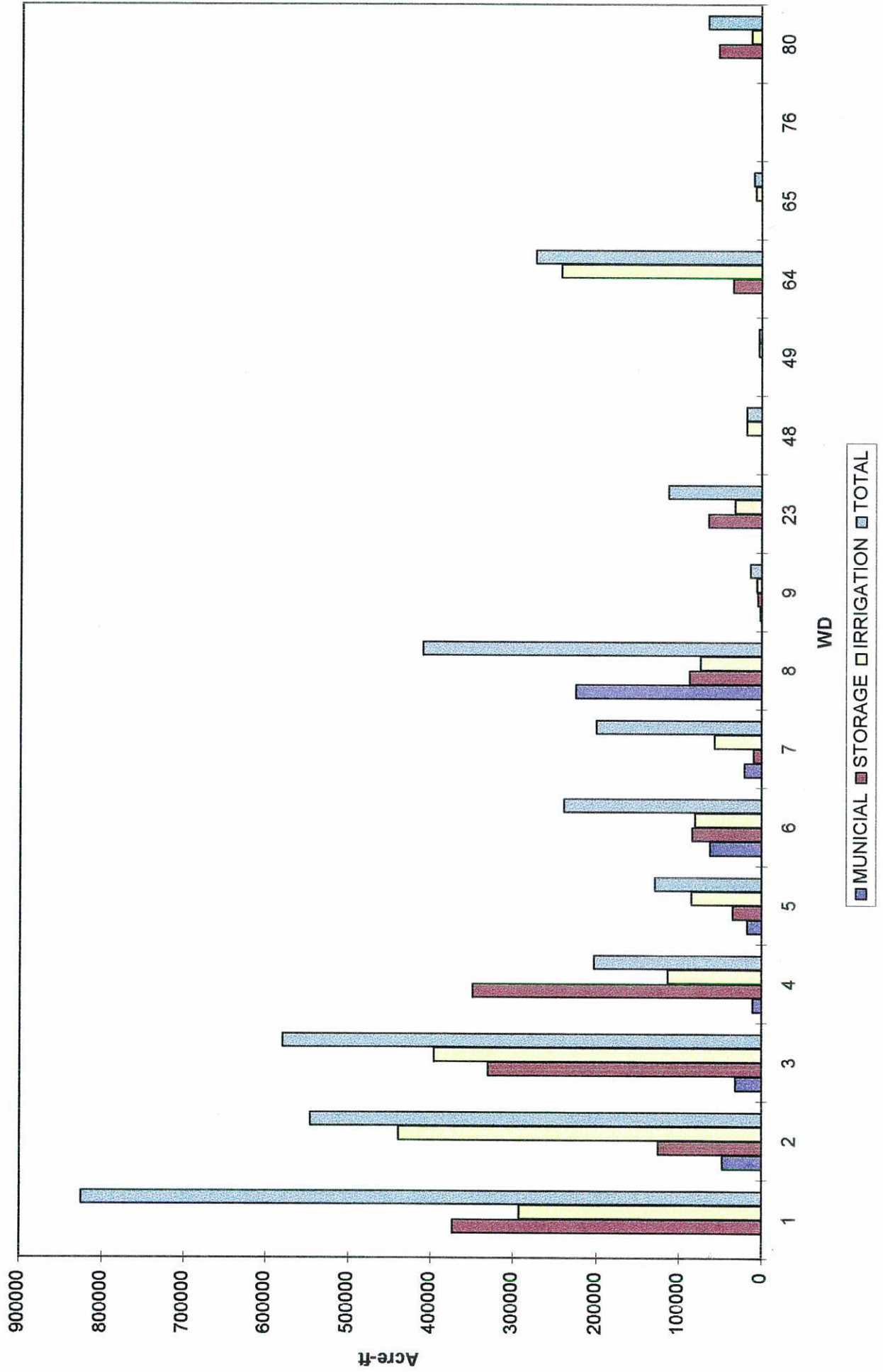
## WATER DIVERSION SUMMARIES TO VARIOUS USE

WD	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
1	0	0	0	0	7791	0	0	0	37
2	0	0	48083	10284	2701	0	0	0	1
3	0	0	32042	0	2184	0	0	24	0
4	0	0	11100	0	0	0	0	0	0
5	0	0	17513	57	0	0	0	22	0
6	0	0	62602	43	786	0	0	0	0
7	0	0	20774	11	44623	0	0	0	0
8	0	0	225506	705	5806	0	4556	10577	949
9	0	0	2100	21	52	0	0	00	0
23	0	0	297	0	737	3624	163	0	236
48	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	0	0	335	1184	0	0	0	0	20
65	0	0	0	0	0	0	2105	0	0
76	0	0	0	0	0	0	0	0	0
80	0	0	145	13	0	0	0	0	0
TO	0	0	420497	12318	64680	3624	6824	10623	1243

WD	AUGMENTATION	EVAPORATION	GEOTHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
1	32981	0	0	0	0	0	0	69780	0
2	7055	0	0	0	0	0	0	8358	0
3	1635	202	0	0	0	0	0	0	0
4	2814	0	0	0	0	131863	0	0	0
5	6654	0	0	0	601	0	0	0	0
6	0	0	0	0	11203	0	0	0	0
7	23765	0	0	114	0	0	0	0	0
8	4800	1416	0	0	0	0	0	0	0
9	868	0	0	0	0	0	0	0	0
23	2490	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	1965	0	0	0	0	0	0	12003	0
65	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	208	0	0	0	0	0	0	0	0
TO	85235	1618	0	114	11804	131863	0	90141	0



**DIVISION 1  
1995 Diversions**



WATER COURT ACTIVITIES  
Calendar Year 1995

Applications made to water court this year.....	291
Consultations with Referee this year.....	325
Decrees Issued by Court this year.....	202
Dismissals.....	17
Complaints.....	1

TYPES OF RULINGS

TYPE OF RULING	NUMBER OF CASES	NUMBER OF STRUCTURES
Findings of Diligence on Conditional Rights	50	97
Cancellations of Conditional Rights	1	1
Conditional Rights Made Absolute	14	17
Surface Water Rights Adjudicated	12	15
Underground Water Rights Adjudicated	64	355
Water Storage Rights Adjudicated	18	19
Plans for Augmentation Adjudicated	24	151
Changes of Water Rights Adjudicated	40	220
Instream Flow Rights Adjudicated	4	4

CALLING PRIORITY 1994-1995

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
1994-1995	1994-1995					Placing Call	
11/01/1994	12/08/1994	BARR LAKE	11/20/1885	13108.00000	2		8,9,23,80
12/08/1994	01/09/1995	PROSPECT	11/21/1910	22239.00000	2		2,8
12/08/1994	03/01/1995	CHEESMAN	09/24/1893	15973.00000	80	DENVER	23
12/08/1994	03/04/1995	DENVER INTAKE	05/01/1899	18018.00000	8	DENVER	8,9,80
01/09/1995	01/23/1995	HORSECREEK	03/17/1911	22355.00000	2	KEN TIMMERMAN	2,8
01/23/1995	02/14/1995	BARR LAKE	01/13/1909	21562.00000	2	KEN TIMMERMAN	2,8
02/14/1995	03/14/1995	HORSE CREEK	03/17/1911	22355.00000	2	KEN TIMMERMAN	2,8
03/01/1995	04/04/1995	CHEESMAN	06/27/1889	14423.00000	80	DENVER	23
04/04/1995	04/04/1995	HORSECREEK BYPASS TO DIST 2	03/17/1911	22355.00000	2	BOB STAHL	2,7,8
04/04/1995	04/05/1995	BURLINGTON DIRECT	11/20/1885	13108.00000	2	KEN TIMMERMAN	2,8,9,23,80
04/05/1995	04/06/1995	BRANTNER	11/15/1881	11338.00000	2	BOB STAHL	2,7,8,9,23,80
04/06/1995	04/07/1995	EVANS #2	10/01/1871	7948.00000	2	BOB STAHL	2,7,8,9,23,80
04/07/1995	04/10/1995	WESTERN	05/05/1866	5969.00000	2	BOB STAHL	2,7,8,9,23,80
04/10/1995	04/25/1995	HORSECREEK	03/17/1911	22355.00000	2	BOB STAHL	2,8
04/10/1995	04/25/1995	CHEESMAN	06/27/1889	15975.00000	80	DENVER	23
04/10/1995	04/12/1995	DIST 1 RECHARGE	06/12/1972	44723.00000	1	MAE CUNNING	2,3,4,5,6,7
04/12/1995	04/25/1995	DENVER INTAKE	10/01/1889	14519.00000	8	DENVER	8,9,80
04/12/1995	04/27/1995	VANCIL RESERVOIR	06/17/1986	49841.00000	1	MAE CUNNING	2,3,4,5,6,7,8,9,80
04/25/1995	04/26/1995	BURLINGTON DIRECT BYPASS	11/20/1885	13108.00000	2	KEN TIMMERMAN	2,8
04/25/1995	04/26/1995	DENVER INTAKE	05/20/1885	12924.00000	8	DENVER	8,9,23,80
04/26/1995	05/23/1995	CHEESMAN	06/27/1889	15975.00000	80	DENVER	23
04/27/1995	04/28/1995	RIVERSIDE RECHARGE	03/03/1988	50466.00000	1	MAE CUNNING	1,2,3,4,5,6,7,8,9,80
04/28/1995	05/02/1995	DISTRICT 1 RESERVOIR	12/31/1929	31423.29219	1	MAE CUNNING	1,2,3,4,5,6,7,9,8,80
04/28/1995	05/02/1995	DENVER INTAKE	12/06/1910	22254.00000	8	KEN TIMMERMAN	8,9,80
05/02/1995	05/04/1995	BARR LAKE	01/13/1909	21562.00000	2	BOB STAHL	2,8
05/02/1995	05/04/1995	DENVER INTAKE	05/01/1899	18018.00000	8	DENVER	8,9,80
05/04/1995	05/17/1995	DENVER INTAKE	12/06/1910	22254.00000	8	DENVER	8,9,80

CALL RECORD 1994-1995 (CONTINUED)

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	Administration Number	District	Person	Districts Affected
1994-1995	1994-1995						
05/23/1995	06/15/1995	SPINNEY MOUNTAIN FREE RIVER	03/20/1973	45010.00000	23	AURORA	23
08/08/1995	08/09/1995	DENVER BYPASS TO BURLINGTON	03/21/1962	47481.40987	8	DENVER	8,9,23,80
08/09/1995	09/11/1995	BIJOU	10/01/1888	14154.00000	1	MAE CUNNING	2,3,4,5,6,7,8,9,23,80
08/11/1995	08/15/1995	BURLINGTON BYPASS TO DIST 2	11/20/1885	13108.00000	2	BOB STAHL	2,7,8,9,80,23
08/16/1995	08/22/1995	BURLINGTON BYPASS TO DIST 2	11/20/1885	13108.00000	2	BOB STAHL	2,7,8,9,80,23
08/25/1995	09/11/1995	FARMERS	07/11/1895	16628.00000	64	JT HANRAHAN	1
09/11/1995	09/12/1995	DIST 1 RECHARGE	06/12/1972	44723.00000	1	MAE CUNNING	1,2,3,4,5,6,7,8,9,23,80
09/12/1995	09/18/1995	FOOTHILLS CONDUIT 26	03/21/1962	47481.40987	8	DENVER	8,80,23
09/18/1995	09/22/1995	DENVER INTAKE	12/06/1910	22254.00000	8	DENVER	8,9,80,23
09/22/1995	11/01/1995	CHEESMAN REFILL	12/31/1929	29219.00000	80	DENVER	80,23
09/22/1995	11/01/1995	CHATFIELD	12/28/1977	46748.00000	8	DENVER	8,9