

Division 1 Annual Report



1998 Irrigation Water Year

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CURRENT WATER YEAR

Water Administration

Water supply conditions in 1998 were excellent. This continues the favorable stream flow conditions that have existed the last few years. The situation was helped by very good carryover storage from 1997. While the snowpack was about average with more snow in the southern mountains, spring time flows in most tributaries and in the mainstem far exceeded average due to the wet conditions the last several years. For example, flow in the South Platte at Kersey averaged approximately 2600 cfs during April versus a mean average of approximately 1100 cfs.

Regulation of Chatfield Reservoir was taken over by the CORPS of Engineers from the Division of Water Resources the latter stages of April due to the high flow conditions at the southern end of the basin and related stage of Chatfield Reservoir. Further, there were no calls for water in the South Platte drainage downstream of Denver in April and no calls at all on the South Platte during the later part of April due to the wet conditions and above average flows. Usually, a call on the mainstem occurs during April. The flow conditions allowed for mainstem reservoirs to be maintained full and for additional recharge to occur along the South Platte.

During the spring, the Northern Colorado Water Conservancy District (Northern) set their Colorado Big Thompson (CBT) unit quota at 50% delivery for 1998. This is the expected quota when there are abundant supplies. In addition, Northern made available 40,000 acre-feet of excess CBT water that could not be stored in May on the tributaries and mainstem of the South Platte within Conservancy District Boundaries. This water was used to help meet the direct flow demand.

Several rainstorms and runoff kept the call off of the mainstem of the South Platte and many tributaries until the latter part of June. The flow in the South Platte dropped dramatically toward the end of June. For example, the flow of the

South Platte near Kersey dropped from over 2400 cfs June 10 to less than 400 cfs by June 21. With lower flows and hot weather, the demand for water exceeded the supply in most basins with resulting calls. This was not unusual for this time of year, but was a major departure from the previous two years where water supply far exceeded demand most of June. The main concern in June the previous two years had been possible flooding.

The senior call in June for the South Platte was an 1882 call in District 2. Continued runoff conditions in the Clear Creek basin substantially helped flow conditions on the South Platte, especially in District 2 between Denver and Kersey, keeping an even more senior call from occurring. There was no call on the lower end of the river below Balzac until the end of June due to difficulties in keeping sand dams in place.

Flows in the South Platte and its tributaries were average or above average through out the basin during July. The most senior call on the South Platte during the month was a 1873 Lupton Bottom ditch call in District 2 on July 22, 1998. In general, the calls through out the basin were not as senior as normal in July.

Widespread rainstorms toward the end of the July returned the South Platte to flows normally which exist only during runoff. These rainstorms completely removed the call on the whole mainstem South Platte the last week of July.

The flow in the tributaries and mainstem continued above average levels in the South Platte during the beginning of August. Due to the high flow conditions, there were no calls on the South Platte during the first half of August, which is very unusual since August along with July often are the months with the most senior calls. The only call during the second half of the month was an 1885 Burlington bypass call. The 1885 call is very junior for August on the South Platte. There was no call below Kersey at all during August, which is also very unusual. Flows of the South Platte had returned closer to seasonal norms by the end of the month 470 cfs at Kersey

Irrigation users began to curtail their use in the month of September as crops began reaching maturity. Except for some minor irrigation, especially for hay, irrigation was generally finished by the end of the month. Water supply conditions were good during the month with no mainstem call below Denver. The calls on the mainstem South Platte were 1885 or 1908 Burlington bypass calls the first part of the month and storage calls the last half of the month.

Reservoir storage levels continued to be average or above average on both the mainstem and tributaries. The flow conditions also allowed recharge to begin the later part of September. There should be no difficulty filling reservoirs this fall and winter unless there are severe weather conditions that do not allow the refilling of those off-stream reservoirs which can have icing problems.

While farm production was very good in 1998, low grain prices continue to be a significant concern for farmers.

Dam Safety

The dam safety branch in Greeley is staffed with four engineers to perform periodic dam inspections. Under the current "1-2-6" program approximately 270 dams are to be inspected each year. All Class I dams are inspected annually, Class II dams inspected every other year, and Class III dams every six years. Last year 263 dams received periodic safety inspections. Another 64 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 30 construction inspections. Two engineers assisted in completion of inspections in Division 6 after an injury to the resident dam safety engineer in Steamboat Springs.

The hydrologic review of spillways continues, with only a handful of Class II dams needing evaluation. Due dates have arrived for

improvements for the more seriously inadequate dams, and staff is in the process of addressing this next phase of the process of correcting spillway deficiencies. Plans to breach one Class I dam (Leyden, WD 7) have been approved. Another Class I dam, Eastlake #3, (WD 2), was altered to be a non-jurisdictional detention dam, and was removed from the inspection program. A program change in 1997 to perform some design review activities in the Division offices has slowed the hydrologic evaluations, and only three were completed in 1998 as staff assumed more design review projects. The last few hydrologic studies will be completed in 1999.

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 was December 1998. This goal was not met as the camera ceased to work. Suitable replacement cameras are difficult to find, and require modifications to the SLED before use. A new camera has been purchased, and the necessary modifications are in progress.

Staff responded to operational emergencies at Horseshoe Lake (WD 4, Class II) and Howard Lake Dam (WD 4) a small Class III dam, that almost failed. At Horseshoe, the outlet gate failed in an open position, releasing the reservoir into Boyd Lake, which has an inadequate spillway, and was nearly full. The owners of the dam were able to block the inlet structure and stop the uncontrolled releases until repairs could be made.



Repairs were made to Clear Lake Dam (WD 7), which had developed sinkholes on the upstream face the previous year. A design to replace the deteriorated original outlet with bored tunnel was developed and completed during the summer. Twin Lakes Dam (WD 3) was entirely rebuilt, thus completing the major rehabilitation of the dams owned by the City of Greeley. Several smaller repair projects were also completed or started construction.

Hydrography



The 1998 water year in the South Platte River and its tributaries was another above average year. A comparison of historic average and 1998 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 1998.

South Platte at Kersey:
 Historic average flow 562,900 AF.
 1998 Water year flow 971,800 AF.

South Platte at Julesburg:
 Historic average flow 394,200 AF
 1998 Water Year flow 727,100 AF.

Stream flow data gathered at gaging stations is the basic information used by water administrators and water users to determine the available water supply within the division. The

Satellite Monitoring System provides this data via the Internet, DWR's telephone system—"Water Talk"—and direct on-line services. The past decade has seen this system double in size in the South Platte basin.

DIVISION 1 SATELLITE MONITORING

	1988	1998
Gages Monitored (All Agencies)	62	130
DWR Gages Maintained	34	78
Data Access	Private (On-line)	Public (Internet)

Our hydrographic staff has not increased over the years. We are still responsible for publishing verified water flow records for 20 gages through the USGS "Water Resources Data" and 61 more in DWR's own publication, "Stream Flow Data for Colorado". Managing the increased data reporting and maintaining the additional Data Collection Platforms installed at the gages, in addition to our regular measurements and records work, has been challenging. We have kept up with these increasing demands by innovations in several areas:

1. Increased computerization of our records process—new programs for calculation of measurements; and installation of DCP's wherever possible at published gages.
2. Increased training and specialization—Training in DCP maintenance and computer applications; and specialization of hydrographers to operations within water districts.
3. Diversification of hydrographic responsibilities—Splitting up one hydrographic FTE among three technicians who also work in GPS, well enforcement, and water rights administration; and training and equipping deputy water commissioners in districts 3, 23, and 64 to make routine stream flow measurements.

Satellite monitoring solutions have been increasingly sought for water rights administration issues. As the public has become more aware of the information available, more requests are coming in for hydrographic data. The need for well trained engineers and technicians in the hydrographic branch can only increase. The hydrographic branch currently includes 2 engineers, 3 full time technicians, and 3 partial FTE technicians.

Gaging station construction and maintenance were limited last year by Jim Clark's vacancy, Roger Burcher's illness, and the restructuring of the part-time FTE hydrographic assignments. Our work was limited to 'must do' projects where data was being missed. New manometer equipment was installed along South Platte River at Henderson, Kersey, and Julesburg. The DCP upgrade program, funded by the Colorado Water Conservation Board, continued. Twelve year old Sutron 8004 Data Collection Platforms were replaced with the newer 8210 models in 8 locations in the Boulder Creek and St. Vrain Creek drainage's. The 'replaced' units were not retired—one of them went to a gage on Little Dry Creek at Greenwood village, at the request of the CWCB, to monitor minimum stream flows. Since we now have full staffing, next year should see some major gaging station renovations.

Involvement with the Community

Division 1 personnel attended and made presentations at meetings of realtors, homeowners groups, organizations, schools, and universities. We also attended meetings of Groundwater Appropriators of the South Platte, Northern Colorado Water Conservancy District, Central Colorado Water Conservancy District, other conservancy districts and forums. The Division personnel were actively involved with the South Platte Lower River Group and Platte River Project group. 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 history of the prior 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

Big Thompson River and St. Vrain River Enforcement Program

During 1998 Division One continued the major effort to locate illegal uses of wells and illegal surface water diversions. This effort has been focused at the Big Thompson River (District 4) from the western edge of the city limits of Loveland upstream to the Eastern Boundary of Rocky Mountain National Park and along the St. Vrain River (District 5) from the Town of Lyons to its headwaters and along the Left Hand Creek Drainage from its' confluence with St. Vrain Creek to its' headwaters.



In the Big Thompson drainage, many people are submitting change of ownership requests for their wells and have obtained forms to late register their historic uses of pre-72 wells. Over one hundred forty persons have joined a substitute supply plan that involves the use of CBT to replace water being diverted directly from the Big Thompson River. In addition, others have joined a substitute supply plan for the Big Thompson River 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-of-priority uses.

As a result of 1998 efforts, the number of parties participating in the substitute supply plan that is operated by the Left Hand and St. Vrain Water Conservancy District has increased to 140. This project has been getting positive results in eliminating illegal water. The water commissioner will continue monitoring water users who are illegally diverting water. This will primarily involve our following up on last year's contacts and issuing cease and desist orders if needed. It is planned that during 1999 the water commissioner will look downstream of Lyons for similar type illegal water users.

During 1999 this office will pursue any individuals who have not joined one of the plans and continue the illegal use of their wells or surface water diversions by issuing cease and desist orders.

Halligan Reservoir Follow-up

The 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. Significant progress has been made in the recovery of the fishery and the habitat since 1996. The pools where trout locate during the winter have experienced sufficient removal of sediment to provide for the survival of the fish during the winter months. The fish population is recovering as envisioned. It will take several more years to finally have the variation in age that is needed to have a viable population. The invertebrates in the area still are not as diverse as prior to the Halligan incident. The diversity that does exist, however, is adequate to support the fishery in the stream system.

DWR MOU with DOW and Water Quality

A new statewide Memorandum of Understanding (MOU) was developed and signed in 1997. This MOU involves both exchanges and reservoir operations. An annual review of the MOU has occurred since the new MOU was signed by all three agencies. The 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. A review of the statewide MOU shows that it has worked well when we are given advance notice by reservoir owners of activities that may present a risk to the fishery or aquatic ecosystem.

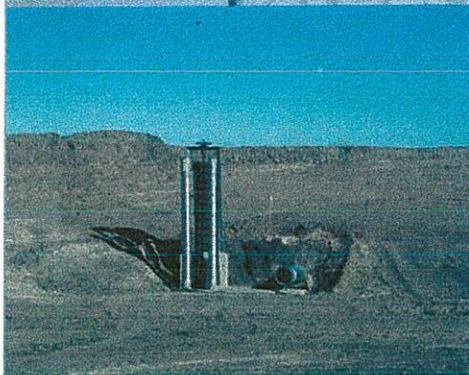
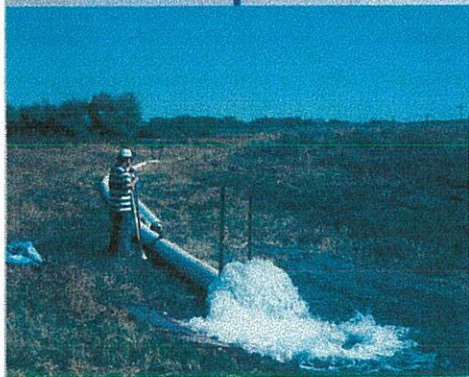
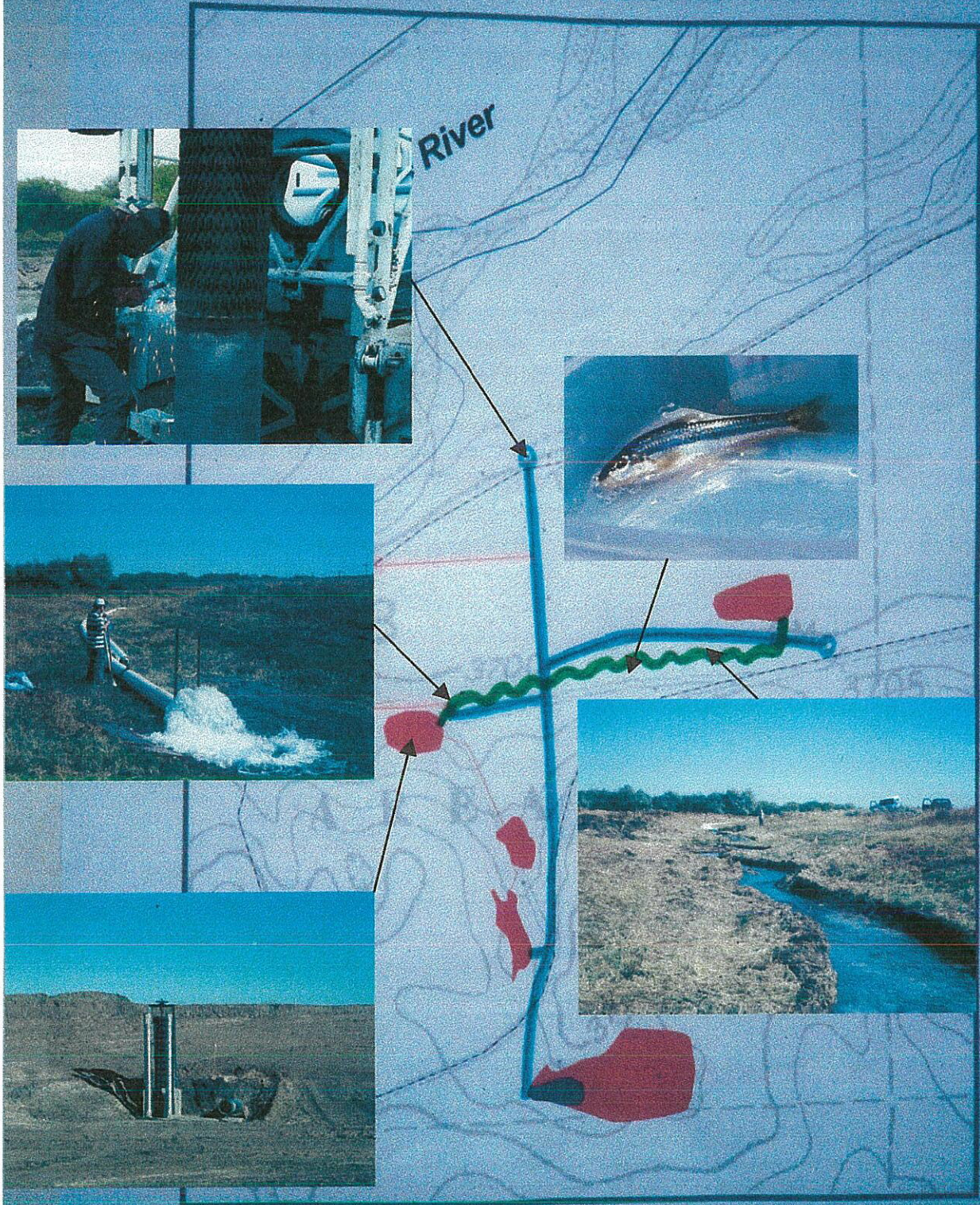
South Platte Lower River Group Activities

The 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 the funding for the group. Based on early 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 below. SPLRG also received a grant for \$30,000 from the U.S. Bureau of Reclamation (BOR) for activities in 1998 and 1999. In

ARTIFICIAL STREAM DEVELOPMENT PROJECT

Tamarack Ranch State Wildlife Area



- Existing Wildlife Well
- Future Recharge Well Option
- Monitoring Well
- New Recharge Well
- Existing Wildlife Ponds
- Existing Pipeline
- Proposed Pipeline Options
- Minnow Research Stream
- Slough
- South Platte River

300 0 300 600 Feet

Scale: 1:3,000



addition to these monies, the LSPWCD, NCWCD, PRP, and GASP each contributed \$5000 toward the investigation in 1996, 1997 and 1998. These monies were further supplemented by performance of significant in-kind 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 been filed recently 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 on the State Wildlife lands. 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.

The Tamarack recharge project was initiated in 1996 with the construction of one well. In 1998, two additional wells were constructed, each capable of pumping approximately 2000 gpm. The wells have been permitted and constructed pursuant to a temporary substitute supply plan issued by the Colorado State Engineer.

Additional wells, buried pipelines, and recharge basins/ponds will be constructed in 1999 using these grants and in-kind services and funds from Group participants. In addition, a live stream section is being constructed between

two of the Tamarack basins for raising and studying native South Platte minnow species of concern. The aquatic division of CDOW budgeted \$25,000 each for 1998 and 1999 to continue work on the 1/4 mile of minnow stream. It is also anticipated that Ducks Unlimited, Inc. will be contributing funds and expertise to the development of wetland and waterfowl habitat at Tamarack.

Extensive monitoring activities for groundwater levels, water quality, and river accretions are part of the recharge project at Tamarack. This monitoring shows that managed groundwater recharge activities do indeed work to retime flows. The monitoring also shows the potential to enhance warm water sloughs and wetland complexes in the meadows along the river at Tamarack.

In addition to recharge efforts on state lands, initial demonstration projects supported by SPLRG and private ditch companies such as the Julesburg Irrigation District have led to longer-term recharge opportunities on private lands. For example, SPLRG is utilizing about \$20,000 of their funds to develop a successful demonstration recharge site into a permanent site through a cooperative agreement between SPLRG, the Julesburg Irrigation District, and the Town of Julesburg. This project will pump water from the Peterson Ditch into natural depressions that exist at the Town's old well field.

Colorado State University (South Platte Map)

One 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) and are envisioned to be added as a part of the South Platte Water Rights Management System (SPWRMS). The

Groundwater Appropriators of the South Platte (GASP), the Central Colorado Water Conservancy District (Central), the Lower South Platte Water Conservancy District (LSPWCD), the Northern Colorado Water Conservancy District (NCWCD), the 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 replacements. GASP, 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 \$23000 for the purchase of satellite imagery and assistance with development for the whole South Platte basin. Total money commitments through 1999 at this time by all parties are approximately \$100,000 for program development and \$78,000 for satellite imagery.

The information from this satellite imagery will be downloaded into a GIS system that can be read by Arc View. In addition, GIS layers 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. Most of the layers have already been completed including field identification for the area covered by the Northern Colorado Water Conservancy District. Crop identification for this area is in process.

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

A consumptive use (CU) model is also being developed as a part of the system. The CU model will allow the estimate of consumptive use for individual farms, ditch systems or whole drainage basins. Based on surface supplies, and assuming that a full water supply is

provided, the amount of groundwater needed to meet potential CU can then be calculated. Alternatively, well pumping CU can be determined through pumping records or power records in combination with well energy/discharge coefficients. The tool will allow this data to be downloaded into either an SDF or Visual Modflow Model to determine stream depletions from well pumping. This information can then be verified by use of a Point Flow Model. It is expected that the initial version of the CU model will be complete in the middle of 1999.

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

Well Location Program

Division 1 continued a program that is being used to locate non-exempt high capacity wells in the Division using Global Positioning System (GPS) units. 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, the program expanded to include former Water District 64 during 1997 and in Water District 65 in 1995. Approximately 777 wells in District 2 and 686 wells in District 64 have been located to a five-meter accuracy level using the GPS units since this program began. We expect to continue in an organized manner on a section by section basis until we have located all wells within the Division. It is currently projected that the completion of the entire project will take well over ten years, given the large number of non-exempt wells in the Division. The Division has expanded the program by getting GASP involved in locating wells. They will try a pilot program during 1998 and share their data collection efforts for their member wells. Our activities in Districts 2 identified 62 wells that are not being currently

augmented and 42 wells which need to be capped properly. In addition, many wells have been found to be incorrectly located.

In District 64, we found 17 wells that need to be capped properly. Several wells also appear to not be part of an augmentation plan. The water commissioner is contacting the well owners. We will send out letters to the well owners, who are found to be pumping wells illegally, when we hear back from the water commissioner.

In District 65, we also used GPS equipment to locate Republican River Compact wells and tagged the wells that were located. We plan to finish the compact well location effort in District 65 during 1999.

ON-GOING ISSUES OR OPERATIONS

Platte River Endangered Species Partnership

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

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

An evaluation is being conducted of the impacts of the proposed Program and a range of water conservation and water supply alternatives, as required under the National Environmental Policy Act (NEPA). The parties intend that a

final Program will be selected and they will enter into an agreement for its implementation.

The signatories to the Cooperative Agreement believe that the best approach to addressing the Endangered Species Act issues in the Central Platte region is a basinwide, cooperative effort to improve and maintain habitat for the target species. The alternative to a basinwide approach would be for each water project to undergo individual review and lengthy proceedings to develop separate measures to help listed species. The signatories believe that a basinwide, cooperative approach will be more effective, efficient, equitable, and provide greater certainty for water users regarding compliance with the ESA.

Proposed Plan

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

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

- Restore the original storage capacity of Pathfinder Reservoir in Wyoming.
- Establish an environmental water account in Lake McConaughy in Nebraska.
- Develop a groundwater recharge and river reregulation project near Tamarack State Wildlife Area in Colorado.

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

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

In later phases of the proposed Program, the holdings of the Platte River Whooping Crane Maintenance Trust, the Nebraska Game and Parks Commission, the Nature Conservancy, and the Audubon Society, totaling approximately 9,000 acres of habitat, will be included toward the long-term goal of 29,000 acres.

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

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

Current Activities

A Water Management Committee was established and is meeting regularly. It has the responsibility to oversee the basin wide study that will be done by the consultant Boyle Engineering. 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 had the responsibility to 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 Division One staff attend all meetings as a committee member.

As a result of Public hearings in Nebraska the governance committee has asked the Water Management Committee to look at high groundwater problems and the impact that the future operations of any plan may have on them.

Republican River Compact

During the past year, Kansas has requested the Supreme Court to hear the case regarding whether Nebraska is violating the Compact. Colorado was not mentioned in the litigation, however, we are submitting briefs in regards to the issue whether wells drilled into the Ogallala Formation should be included in the Compact. We will also continue to participate in the case to monitor those issues that we feel may require our submitting additional briefs to clarify our position pertaining to the Compact.

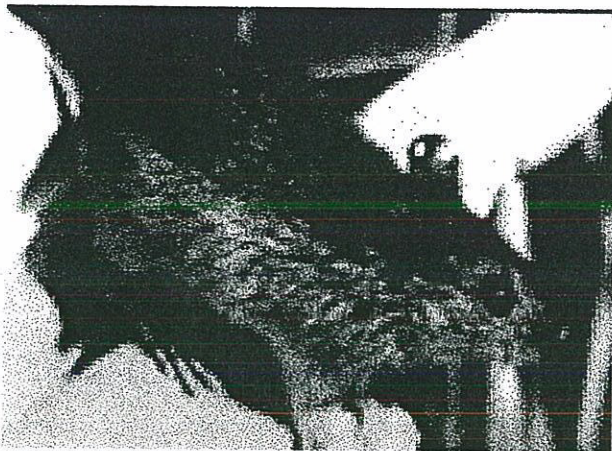
US Forest Service/Poudre

The 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. Through coordination with the Water Commissioner, the JOP continued successful operation in 1998. However, the National 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. The Division of Water Resources has filed to intervene in the Case. The judge has not ruled on this motion.

Through coordination with the Water Commissioner, the JOP continued successful operation in 1998. In 1998, the Colorado Division of Wildlife asked and gained permission from the Forest Service to delay the start of the JOP for one month from November 1 to December 1 to allow DOW to complete their annual fish shocking program. This was necessary due to above average base flows in the river. The JOP releases were then extended one month in the spring from April 1 to May 1. These changes in operation of the JOP demonstrated the potential flexibility with the program.

Prebles Meadow Jumping Mouse



On March 28, 1997, the United States Fish and Wildlife Service (Service) proposed placing the Prebles meadow jumping mouse (*Zapus hudsonius preblei*) (PMJM) on the list of species eligible for regulatory protection by the federal government under the federal Endangered Species Act (ESA). From Colorado Springs north to Cheyenne, Wyoming, the PMJM depends upon stream-side vegetation and meadows along the creeks and

rivers that flow from the mountains of the Front Range onto the eastern plains. PMJM populations have declined significantly, which prompted the Service to propose the listing pursuant to its duties under the ESA.

The original public comment period on the listing proposal closed on July 28, 1997. The comment period was reopened for a second period that lasted until January 22, 1998. Under the ESA, the Service then had until March 28, 1998, to make one of four possible decisions: (1) not to list the PMJM; (2) to list as a threatened species; (3) to list as an endangered species; or (4) to postpone a decision for six months. In mid-March, 1998, the Service announced that their final decision would be postponed until mid-May due to the volume of public comments on the proposed listing.

On May 12, 1998, the Service officially listed the PMJM as "threatened" under the ESA. Their independent decision was based solely on the basis of the best scientific and economic information available and the effects of state and local efforts to conserve the species.

Because the Service decided to list the PMJM as a threatened species, actions taken by private citizens or government agencies that may adversely affect the PMJM or its habitat will be subject to regulation under the ESA. Any development that potentially affects PMJM habitat may need federal approval before proceeding.

Records show that the Prebles meadow jumping mouse range once included Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Elbert, Jefferson, Larimer and Weld counties in Colorado. They are believed to occur today in only Arapahoe, Boulder, Douglas, El Paso, Jefferson, Larimer, and Weld counties in Colorado.

Recent trapping efforts have found mouse populations in some areas (Douglas, El Paso and Elbert counties in Colorado) where few or no historical records exist. More than 120 surveys conducted at potential development sites along Colorado's Front Range with habitat

for Prebles mouse were conducted in 1997. Of those, the mouse was found in only 17 sites. But when researchers targeted only sites with ideal habitat, the mouse was found in 7 of the 10 sites. Recent trappings indicate that while the overall population is at a better level than previously believed, the range of the mouse has decreased, especially adjacent to or east of the Interstate 25 urban corridor.

The Department of Interior on December 3, 1998 proposed a special section 4(d) rule for the mouse. The proposed rule prohibit actions, until June of 2000, that would threaten the Prebles to the extent necessary to provide for the conservation of the mouse. It provides flexibility to private landowners for ongoing activities that will not jeopardize the species. One area of concern for water right owners is the decision to prohibit the periodic maintenance of irrigation ditches where Mouse Protection Areas are identified. Maintenance activities prohibited even included burning and clearing vegetation which has been viewed as possibly having an impact on the mice. During the early part of 1999 water users have been meeting with the Fish and Wildlife service to get an exemption to this finding. If the Service does not change this rule, ditch owners will be significantly impacted and could cause reduced ditch capacities. In addition, it is not clear if ditch owners currently could repair ditches to prevent the wasting of water. This could also impact water rights if this office would have to reduce diversions to assure that waste does not occur.

COURT DECISIONS

AURORA/SOUTH PARK

The threefold application by the City of Aurora and Park County Sportsmen's Ranch for nontributary water rights, water recharge and storage rights and exchanges continues as a somewhat less bitter struggle 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.

From our perspective, the Court's finding that the Senate Bill 5 assumptions were only applicable to the Denver Basin and thus were incorrectly applied to the Laramie-Fox Hills aquifer in South Park was the most significant development in these cases this year. As expected, this finding was appealed to the Supreme Court under case no. 98SA208. Since the Laramie-Fox Hills aquifer exists in a number of locations outside the Denver Basin, we will continue to analyze well permit and water court applications in these areas in compliance with the current ruling pending the outcome of the appeal.

The 900 to 1,000 exempt type well water right applications filed by the local residents in response to the Aurora filing continue to move slowly through Water Court. The Division 1 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.

FRICO V. GOLDEN

This case continues life as Supreme Court case number 97SA343 with no decision yet. It 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.

DENVER EXCHANGES

This case continues as a protracted battle between the cities of Denver and Thornton over water quality injury as it relates to exchanges using treated wastewater effluent as the substitute supply. The State and Division Engineers officially entered into the case in August 1998 by intervening to defend our position of relying on the Health Department's NPDES permit to insure that the water quality of the substituted supply meets the statutory requirements. Trial in this case has been postponed until January 2000. Thus, barring any currently unforeseen developments, the reader will hear more about this case in future Division 1 annual reports because any decree entered in this case will very likely end-up before the Supreme Court.

ANGLUND V. DONOVAN, et al.

This was an interesting case that was before the Boulder County District 3 Court (Case No. 96CV797) instead of the Water Court. The case began when the sole remaining water right owner/user (Anglund) in Divide Reservoir complied with instructions from a Dam Safety Engineer to remove a

number of trees, some quite large, from the reservoir embankment. The land on which the reservoir and embankment is located belongs to several other persons (Donovan, et al.). Since Anglund did not obtain permission of the landowners to remove the trees, litigation over the removal and several other access issues resulted. The Dam Safety Engineer was deposed in this case but not called to testify at the four-day trial held in June 1998. In the end, the Court affirmed Anglund's access rights for use and maintenance of the reservoir along historically used routes, but found Anglund had no fee interest in the inlet ditch or reservoir embankment. The interesting aspect of this case from our perspective was the Court's reliance on what the "State Dam Safety inspector" did or did not prohibit related to activities involving the reservoir embankment. It just points out the deference that non-water judges give to Division of Water Resources personnel in ownership or other disputes not directly related to water rights administration.

PERSONNEL/WORKLOAD ISSUES

Well Administration Activities

In addition to the activities previously discussed under the Well Location Program and the Big Thompson and St. Vrain River Well Administration sections, the Water Commissioners have continued to spot check water well construction. We continue to see the number of field inspections required for both registrations of pre-1972 exempt type wells and replacements for non-exempt wells increasing. This 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.

Well Location Program

For the second year in a row, the Division was active in hiring several college

students on staff and as interns to help with our well location program, both in collecting field information and in collecting background information on decrees, permits, etc... prior to and after going to the field. In 1998, we hired four college students using money available from the Ground Water Management Fund and reallocation of part time staffing authorities. In addition, deputy commissioners were brought into the Greeley office on a part time basis, during the past winter, to help with collecting background information and to input data collected during the previous summer. This is the first time that such a step has been taken allowing Division 1 to pursue the well location program more aggressively.

Personnel Changes

Bob Cooper was appointed to fill the Professional Engineer II position left vacant by the retirement of Jim Clark. In this position, Bob will be the manager of several hydrographers and the hydrographic program in Division 1. Bob has a vast background of 25 years experience with hydrographic work. Division 1 looks forward to Bob's leadership in this important area. Bob's promotion created a vacancy at the Professional Engineer I level. Ted Anderson filled the vacancy. Ted comes to Division 1 from Simons Associates consulting firm where he was involved with programming, water measurement, setting up water measurement networks and supervising data collection. Ted has a varied background including computer expertise.

Denise Miller moved from the District 23 South Park water commissioner position to Greeley as a part of an overall reorganization in response to Doug Stenzel's departure to be DWR's Data Base Administrator in Denver. Division 1 selected Mike Eytel to replace Denise in District 23. Mike had been working for the Division as a Deputy Water Commissioner for several Districts. In the reorganization, Brent Schantz also took on new duties in Greeley. We believe Brent, Mike and Denise will continue to be very

valuable members of the Division 1 team in their new roles.

In other changes, Fred Renner switched positions with Merlin Friedrichsen becoming the assistant to Don Brazelton in District 4, in addition to a hydrographer. Merlin took on Fred's full time hydrography duties.

Dam Safety

The dam safety engineers in Division 1 continue to inspect dams on a 1-2-6 year frequency. A legislative audit recommended that staff should cease inspections of federally owned or regulated dams. It was suggested that the reduction in workload could provide time for hazard class re-evaluations to be accomplished. Outlet inspections are conducted every ten years, although equipment failure has delayed completion of the initial cycle.

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

Enforcement Data Base

In order to keep track of increased enforcement activities created by the well location program and administration in the tributaries to the South Platte, Division 1 has developed its own enforcement data base. This database is written in ACCESS and keeps track of structure information, owner and contact information, and enforcement history. The database was designed using the same field names as used in hydrobase when applicable to assure compatibility with the hydrobase database.

Administration

The major impacts stemming from growth in the South Platte Basin has had significant impacts on water resource administration. One area where administration continues to be most affected has been in the complexity of new decrees and plans for augmentation. These items have resulted in increased mileage and overtime hours for water commissioners and staff. Since most water commissioners are already overtaxed for time, Division 1 assigned an additional 3/4 of an FTE as an assistant water commissioner to former Water District 7 (Clear Creek) and another 3/4 of an FTE was assigned to be an assistant water commissioner for the combined former Water Districts 2, 8 & 80 to assist the lead water commissioners in these districts. At a later date, work load will eventually have to be 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 1 has continued its intern program during the summer to assist the water commissioners in former Water Districts 3 and 4.

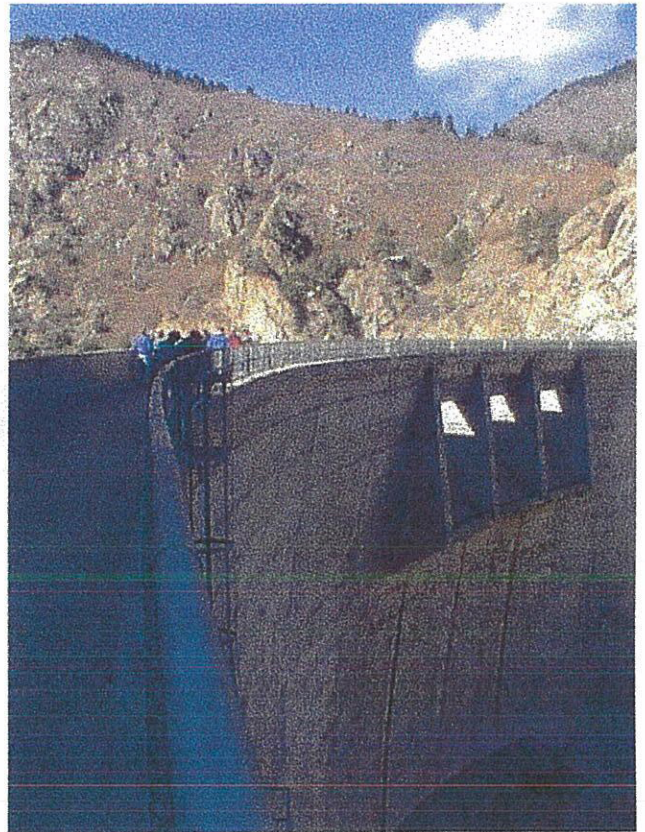
Training Program

A new internal training program was set up for Division 1. Linda Korf was assigned as the training coordinator. Thus far, this program has resulted in Microsoft Word, and well permit training, training in standardizing call nomenclature and answering administrative questions. Brent Schantz also has provided on-going training to several temporary and permanent employees in using the GPS. Future classes will include GPS and GIS training .

In addition to internal training, Deb Bell from the Denver office gave computer training to several Division 1 staff in the use of ACCESS. Jim Hall and Dave Nettles attended management training in Denver. This training included

several different sessions focusing on issues like mission and goals, strategic planning, giving presentations, diversity and leadership.

Outside the classroom, Dick Stenzel and Jim Hall arranged several group field trips to visit systems that impact total river administration such as the Denver system. These field trips also allowed discussion between water commissioners on issues of common concern such as reservoir and exchange administration.



Innovative Administration Processes

Many steps Division 1 have undertaken during the last few years have been in an effort to take advantage of technological advances and other opportunities for innovative administration. These ideas also respond to DWR's vision as enunciated among other

places in Long Range Goal 4.3.1. Division 1 has emphasized innovative administration throughout the text of this report. Specifically, we would refer you to the text concerning the South Platte Lower River Group, South Platte MAP, the new enforcement data base, the well location program, Platte River Endangered Species Partnership, the Joint Operation Project on the Poudre River, the Division 1 Training Program, and restructuring of personnel assignments. All of these projects revolve around using either improved technology, better communication or cooperation with the water users.

During 1999 we plan on developing Water Commissioner notebooks for each District. The handbook would provide detailed information for each District's key structures. The type information provided would include a map that shows the location of the diversion structure and measuring device and how to get to each of them. In addition, the map would show the GPS location of the structures and also a photograph of each. We would also attach from hydrobase the water rights that are associated with the diversion structure and contact person. It is believed that this information would be invaluable to future water commissioners.

A similar notebook is envisioned for each of our gage stations. It would include a USGS type description for each gage station and the description of the station measuring devices, a map showing the GPS location, how to get to the gage and also photographs.

We would ultimately envision making this information to our staff, by computer, so that those unfamiliar with any of these structures would be able to locate the structures and have the information available to them when they are working on issues related to them. Division 1 plans to continue to look to these areas in its efforts to improve its service to the people in the State of Colorado.

Employee Recognition

Recognition of new temporary employees special efforts

Mark Simpson

He did an outstanding job assisting Don Brazelton during past year. He constantly looked for ways to do his job better. He developed several maps and lists showing where water rights are located on the Little Thompson to assist future assistants locating structures. He also created a notebook giving the location of users that are part of replacement plans in the Big Thompson. I had several very positive comments about the young man who met with these water users.

Recognition Fulltime Employees

Mike Cola

Iwant to recognize Mike's efforts during the past couple of years working with the Youth in Natural Resources. I also want to acknowledge Mike's extra effort to cover for Jim Dubler while he went on an extended trip. While Jim was away Mike had to handle an outlet problem at Horseshoe Reservoir and also cover a small dam incident where there was a threat of the dam failing.



Gloria Nelson

Gloria has been an outstanding addition to our office staff. She is always willing to help fill in for any needs that we may have in addition to adjusting her work schedule as needed. Over time she has taken on additional responsibilities beyond those that she was originally assigned. One of the most significant additional duties was learning and now handling COFRS. When Linda Korf had surgery, she agreed to work full time and fill in for Linda. I have never heard her complain and always has a very positive outlook on life and her work.

Bob Cooper

Bob has been handled the operation of our hydrographer group temporarily until we finally selected him as the new head of this group. Bob did a very commendable job during this period of time with a reduced hydrographer staff. He has been very active in trying to look at ways to improve how we keep our records, looked at ways to standardize how each hydrographer records their work hours. He holds very good staff meetings that include safety and health issues that the hydrographers should be aware of.

Jim Hall

Jim is always willing to assist me in the day to day operations of our Division. He attends many of the meetings that exist in our Division when I have conflicts in meetings times and always does an outstanding job of keeping me and Hal informed of the results of those meetings. He has the unenviable job of writing many of our enforcement letters to well owners and having to handle the follow up telephone calls and meetings with these individuals if I am not around. He constantly asks me if there is any thing he can do to further assist me. He always has a very positive attitude and a smile on his face.

Water Commissioner of the Year

Don Brazelton

Don during the past year has been involved with the enforcement efforts along the Big Thompson River. This enforcement effort has progressed with very little problems due in part to how Don talks to the illegal water users and gets their compliance. He handles all water users in a very positive and professional manner. He always is willing to assist the water users in his District to find solutions for the water problems they may have. Many of his water users have told me they appreciate the outstanding job that he does and they very seldom question his administrative decisions. I also want to recognize all the efforts of Don to use his computer to assist him in his daily administration of the Big Thompson River.

Runoff Forecast

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

RESERVOIR	USABLE CAPACITY	USABLE STORAGE		
		THIS YEAR	LAST YEAR	AVERAGE
ANTERO	20.0	20.0	6.0	15.0
BARR LAKE	32.0	23.4	23.2	22.6
BLACK HOLLOW	8.0	3.0	3.0	4.0
BOYD LAKE	49.0	37.1	44.0	33.7
CACHE LA POUFRE	10.0	7.0	8.0	7.2
CARTER	108.9	54.2	95.4	81.6
CHAMBERS LAKE	9.0	5.0	5.0	3.0
CHEESMAN	79.0	46.7	69.0	56.0
COBB LAKE	34.0	15.0	19.0	13.9
ELEVEN MILE	97.8	97.7	99.0	91.0
EMPIRE	38.0	22.3	27.2	22.8
FOSSIL CREEK	12.0	6.5	8.0	6.5
GROSS	41.8	27.0	37.0	26.4
HALLIGAN	6.4	6.0	4.5	3.8
HORSECREEK	16.0	12.5	11.0	12.1
HORSETOOTH	149.7	75.7	142.7	89.0
JACKSON	35.0	19.3	4.7	28.8
JULESBURG	28.0	16.4	16.0	19.9
LAKE LOVELAND	14.0	11.8	3.2	8.8
LONE TREE	9.0	8.8	6.8	6.0
MARIANO	6.0	5.3	4.3	4.5
MARSHALL	10.0	8.4	6.5	4.1
MARSTON	13.0	10.5	3.0	7.0
MILTON	24.0	15.7	17.1	13.8
POINT OF ROCKS	70.0	47.3	65.8	55.0
PREWITT	33.0	22.4	11.9	17.4
RIVERSIDE	63.1	36.2	45.2	40.1
SPINNEY MOUNTAIN	48.7	26.8	30.7	34.6
STANDLEY	42.0	37.7	38.8	25.4
TERRY LAKE	8.0	5.5	5.5	5.1
UNION	13.0	10.9	10.6	10.5
WINDSOR	19.0	12.5	12.0	10.3

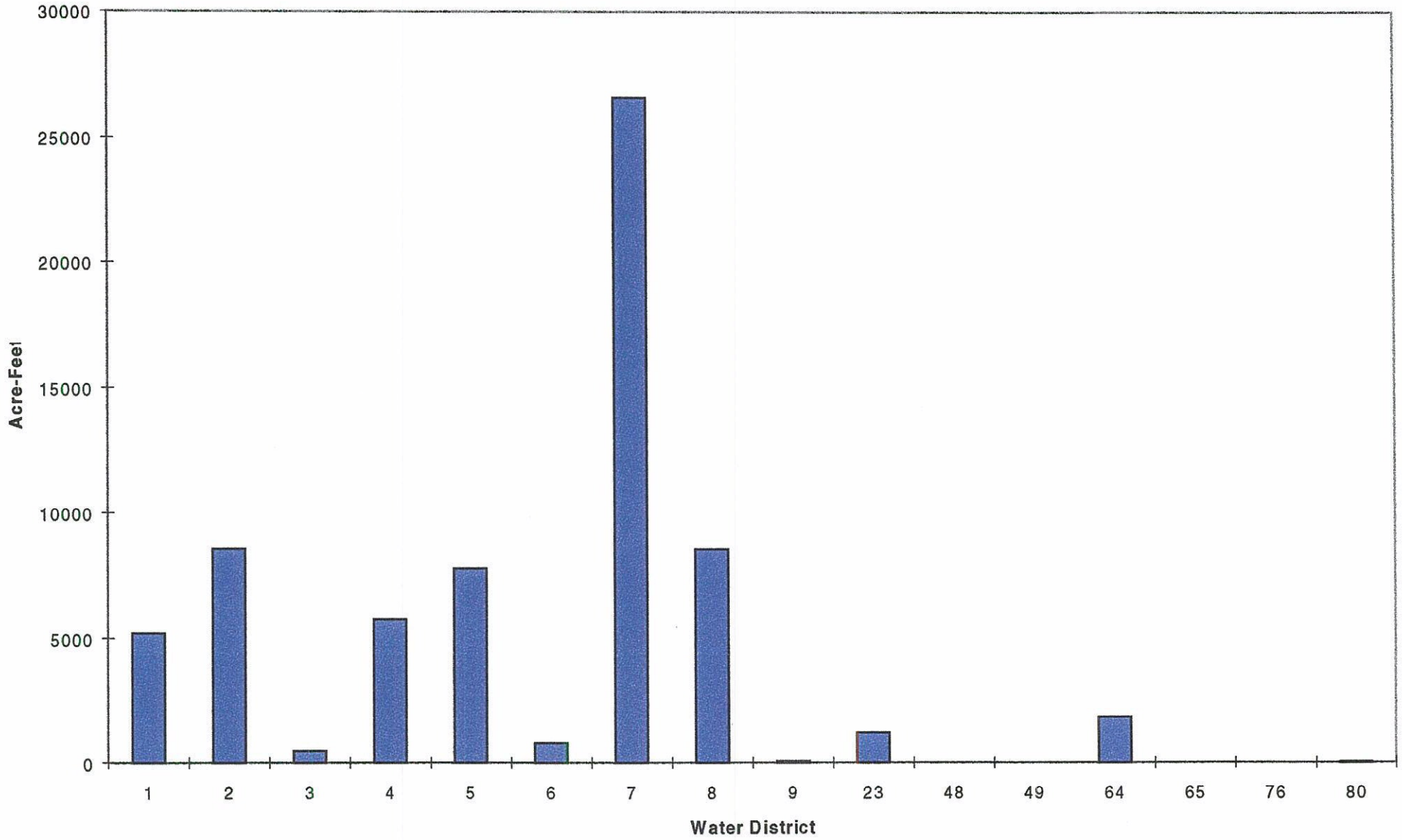
Information taken from Colorado Basin Outlook Report, February 1, 1999

SOUTH PLATTE RIVER BASIN WATER SNOWPACK

WATERSHED	NUMBER OF DATA SITES	THIS YEAR AS % OF	
		LAST YEAR	AVERAGE
BIG THOMPSON BASIN	6	110	101
BOULDER CREEK BASIN	5	69	75
CACHE LA POUFRE BASIN	8	106	100
CLEAR CREEK BASIN	4	78	80
SAINT VRAIN BASIN	3	122	93
UPPER SOUTH PLATTE BASIN	11	75	83

*Information taken from Colorado Basin Outlook Report, February 1, 1999.

**DIVISION 1
1998 Augmentation Releases**



1998 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS
(November 1997 - October 1998)
{PRIVATE }

{PRIVATE }RECIPIENT								SOURCE		
WD	ID	NAME	STREAM	10 YEAR AVG		CURRENT YEAR		WD	ID	STREAM
				AF	DAYS	AF	DAYS			
3	4604	WILSON SUPPLY DITCH	CACHE LA PCUDRE RIVER	1,672.7	38.3	1,410	53	48	4604	SAND & DEADMAN CR.
3	4608	DEADMAN DITCH	CACHE LA PCUDRE RIVER	349.8	18.7	172	14	48	4608	DEADMAN CREEK
3	4606	BOB CREEK DITCH	CACHE LA PCUDRE RIVER	0	0	55	42	48	4606	NUNN CREEK
3	4607	COLUMBINE DITCH	CACHE LA PCUDRE RIVER	0	0	0	0	48	4607	DEADMAN CREEK
3	4600	LARAMIE-POUDRE TUNNEL	CACHE LA PCUDRE RIVER	16,104	99	19,550	98	48	4600	LARAMIE RIVER
3	4605	SKYLINE DITCH	CACHE LA PCUDRE RIVER	66.2	1.7	0	0	48	4605	LARAMIE RIVER
3	4602	CAMERON PASS DITCH	CACHE LA PCUDRE RIVER	50.5	12.9	0	0	47	4602	MICHIGAN RIVER
3	4603	MICHIGAN DITCH	CACHE LA PCUDRE RIVER	4,410.3	291.4	5,280	346	47	4603	MICHIGAN RIVER
3	4601	GRAND RIVER DITCH	CACHE LA PCUDRE RIVER	20,256	129	21,140	135	51	4601	COLORADO RIVER
4	911	EUREKA DITCH	BIG THOMPSON RIVER	39.8	30	0	0	51	4602	COLORADO RIVER
4	4634	ADAMS TUNNEL	BIG THOMPSON RIVER	231,060	362	197,300	350	51	4634	COLORADO RIVER
6	4655	MOFFAT TUNNEL	SOUTH PLATTE RIVER	52,912	341	36,510	360	51	4655	FRASER RIVER
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	1,089.9	103.4	1,550	93	51	4625	FRASER RIVER
7	4626	VIDLER TUNNEL	CLEAR CREEK	741.7	85	425	89	36	4626	MONTEZUMA CREEK
8	653	ROBERTS TUNNEL	SOUTH PLATTE RIVER	68,767	243.9	25,400	112	36	4684	BLUE RIVER
23	4611	BOREAS PASS DITCH	SOUTH PLATTE RIVER	110.1	39.4	189	74	36	4685	INDIANA CREEK
23	4612	HOOSIER PASS DITCH	ARKANSAS RIVER	10,330	150	9,330	166	36	4683	BLUE RIVER
23	4490	AURORA HOMESTAKE	SOUTH PLATTE RIVER	16,543.9	163.7	7,619	59	37	4644	HOMESTAKE CREEK

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 1

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MIN MUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
1	3570	BIJOU #2	SOUTH PLATTE	250	2/28/98	4,780	5/31/98	4,300
1	3816	EMPIRE	SOUTH PLATTE	8,779	9/30/98	34,930	5/31/98	9,240
1	3817	JACKSON	SOUTH PLATTE	9,843	9/30/98	27,257	3/31/98	10,392
1	3651	RIVERSIDE	SOUTH PLATTE	13,510	9/30/98	63,113	4/30/98	16,246
1	3400	VANCIL	SOUTH PLATTE	2,569	9/30/98	4,898	5/31/98	4,093
1	3592	HORSE CREEK	HORSE CREEK	9,573	7/31/98	14,071	4/30/98	10,052
1	3609	PROSPECT	PROSPECT CREEK	1,704	10/31/98	5,003	3/31/98	1,704
1		OTHERS		396		1,470		684
1		TOTALS		46,624		155,522		56,711

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 2

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
2	3837	OASIS RES/3ARR	SOUTH PLATTE	13,895	9/30/98	29,431	4/30/98	24,500
2	3351	BULL CANAL #8	CLEAR CREEK	952	8/31/98	3,579	5/31/98	1,406
2	3890	COAL RIDGE	LITTLE DRY CREEK	497	4/30/98	816	7/31/98	728
2	3861	GREAT WESTERN	WALNUT CREEK	2,055	10/31/98	3,039	11/30/97	2,055
2	3592	HORSE CREEK	SOUTH PLATTE	8,741	9/30/98	14,071	4/30/98	10,052
2	3902	LORD	SOUTH PLATTE	48	2/28/98	493	5/31/98	93
2	3858	LOWER LATHAM	SOUTH PLATTE	4,985	4/30/98	6,116	6/30/98	6,116
2	3876	MILTON	SOUTH PLATTE	10,210	8/31/98	21,092	5/31/98	15,300
2	3609	PROSPECT	SOUTH PLATTE	1,704	10/31/98	5,164	12/31/97	1,704
2	3375	QUINCY	SOUTH PLATTE	2,362	11/30/97	2,679	4/30/98	2,706
2	3903	STANDLEY	WOMAN CREEK	36,620	9/30/98	52,560	7/31/98	36,681
2	3700	TANI LAKES COMBINED	SOUTH PLATTE	4,250	9/30/98	5,343	1/31/98	4,329
2	3699	WEST GRAVEL LAKES COMBINED	SOUTH PLATTE	1,753	9/30/98	2,843	12/31/97	2,290
2	3500	DAHLIA PIT	SOUTH PLATTE	1,635	10/31/98	1,883	7/31/98	1,635
2		OTHERS		2,186		3,824		3,230
2		TOTALS		91,893		152,933		112,825

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 3

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
3	3774	FOSSIL CREEK	FOSSIL CREEK	3,766	9/30/98	10,857	5/31/98	5,953
3	3712	HALLAGAN	N FK POUFRE RIVER	791	9/30/98	6,428	3/31/98	2,471
3	3707	INDIAN CREEK/MTN SUPPLY	INDIAN CREEK	745	10/31/98	1,850	5/31/98	745
3	3697	NORTH POUFRE #2/DEMME LAKE	N FK POUFRE RIVER	2,087	10/31/98	3,336	3/31/98	2,087
3	3702	NORTH POUFRE #3/HACKEL LAKE	N FK POUFRE RIVER	1,597	9/30/98	2,493	3/31/98	1,672
3	3704	NORTH POUFRE #4	N FK POUFRE RIVER	647	5/31/98	1,015	6/30/98	755
3	3698	NORTH POUFRE #5/BEE LAKE	N FK POUFRE RIVER	4,100	8/31/98	5,660	7/31/98	4,995
3	3716	NORTH POUFRE #15	N FK POUFRE RIVER	2,038	8/31/98	5,207	6/30/98	2,305
3	3715	PARK CREEK	PARK CREEK	2,440	9/30/98	6,931	6/30/98	2,446
3	3730	COBB LAKE	CACHE LA POUFRE RIVER	15,630	10/31/98	20,625	5/31/98	15,630
3	3713	SEAMAN/MILTON SEAMAN	N FK POUFRE RIVER	3,839	4/30/98	4,519	11/30/97	4,519
3	3780	CLAYMORE	CACHE LA POUFRE RIVER	333	10/31/98	978	4/30/98	333
3	3772	SEELEY	CACHE LA POUFRE RIVER	895	4/30/98	1,144	7/31/98	981
3	3804	WARREN	CACHE LA POUFRE RIVER	1,025	9/30/98	2,127	6/30/98	1,066
3	3786	WOOD	ROLLARD DRAW	997	9/30/98	2,728	5/31/98	1,117
3	3678	JOE WRIGHT/CAMERON	CACHE LA POUFRE RIVER	3,122	9/30/98	6,714	7/31/98	3,150
3	3952	RAWHIDE	CACHE LA POUFRE RIVER	13,660	11/1/97	14,824	5/31/98	14,119
3	3732	HORSETOOTH	DIXON CANYON CREEK	74,595	10/31/98	150,421	2/28/98	74,595
3	3725	DOUGLASS	CACHE LA POUFRE RIVER	6,453	11/1/97	8,371	5/31/98	6,864
3	3727	WINDSOR RESERVOIR #8	CACHE LA POUFRE RIVER	4,968	9/30/98	9,884	5/31/98	4,968
3	3728	NO. 8 ANNEX	CACHE LA POUFRE RIVER	1,582	9/30/98	3,657	5/31/98	1,582
3	3738	WINDSOR RESERVOIR	CACHE LA POUFRE RIVER	4,055	8/31/98	17,328	5/31/98	11,199
3	3679	CHAMBERS	JOE WRIGHT CREEK	3,864	11/1/97	8,516	6/30/98	5,240
3	3676	LONG DRAW/GRAND RIVER	LONG DRAW CREEK	2,462	9/30/98	10,519	6/30/98	2,673
3		SUBTOTALS		155,691		306,132		171,465

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 3 (CONTINUED)

PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
		BALANCE FROM PREVIOUS PAGE		155,691		306,132		171,465
3	3744	BLACK HOLLOW	CACHE LA POUFRE RIVER	3,816	9/30/98	5,028	5/31/98	3,972
3	3735	CURTIS	CACHE LA POUFRE RIVER	504	7/31/98	673	11/1/97	33
3	3740	KLUVER	CACHE LA POUFRE RIVER	396	10/31/98	819	7/31/98	396
3	3742	LONG POND/WATER SUPPLY #5,6,7	CACHE LA POUFRE RIVER	2,328	11/1/97	3,089	5/31/98	2,503
3	3736	ROCKY RIDGE/WATER SUPPLY #1	CACHE LA POUFRE RIVER	3,144	10/31/98	3,607	6/30/98	3,144
3	3737	WATER SUPPLY #3	LONG POND RESERVOIR	2,858	8/31/98	4,489	6/30/98	3,053
3	3739	WATER SUPPLY #4	LONG POND RESERVOIR	167	11/1/97	676	6/30/98	365
3	3805	TERRY/LARIMER WELD	CACHE LA POUFRE RIVER	3,406	9/30/98	7,778	6/30/98	6,006
3	3726	WORSTER	SHEEP CREEK	0	8/31/98	3,750	6/30/98	280
3	3775	TIMNATH	DUCK SLOUGH	3,068	9/30/98	10,830	4/30/98	3,234
3	3770	WINDSOR LAKE	CACHE LA POUFRE RIVER	442	2/28/98	1,131	5/31/98	1,086
3	3683	BARNES	BARNES MEADOWS CREEK	369	4/30/98	2,349	9/30/98	2,344
3	3699	NORTH POUFRE RESERVOIR #6	N FK POUFRE RIVER	4,784	9/30/98	8,182	5/31/98	4,822
3	3708	MOUNTAIN SUPPLY RESERVOIR #18	BOX ELDER CREEK	566	8/31/98	866	5/31/98	697
3	3745	DOWDY LAKE RESERVOIR	SOUTH PINE CREEK	835	10/31/98	916	4/30/98	835
3	3751	SOUTH GRAY RESERVOIR	BOX ELDER CREEK	0	8/31/98	713	4/30/98	449
3	3686	COMANCHE RESERVOIR	BIG BEAVER CREEK	0	11/1/97	2,578	6/30/98	0
3	3814	PANHANDLE RESERVOIR	PANHANDLE CREEK	1,044	8/31/98	1,054	11/1/97	1,054
3		OTHERS		4,609		9,975		5,394
3		TOTALS		188,027		374,635		211,132

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 4

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
4	4156	BOULDER & LARIMER/ISH	LITTLE THOMPSON	2,034	10/31/98	7,061	5/31/98	2,034
4	4110	BOYD LAKE	BIG THOMPSON	35,912	9/30/98	47,834	6/30/98	36,499
4	4513	CARTER	BIG THOMPSON	57,865	10/31/98	111,384	2/28/98	57,865
4	4116	DONATH	BIG THOMPSON	299	1/31/98	1,181	6/30/98	720
4	4166	HERTHA RESERVOIR	DRY CREEK HERTHA	1,093	8/31/98	1,634	5/31/98	1,455
4	4123	HORSETOOTH RESERVOIR	BIG THOMPSON	1,548	9/30/98	8,051	6/30/98	1,548
4	4487	LAKE LOVELAND	BIG THOMPSON	3,081	12/31/97	12,346	6/30/98	12,058
4	4136	LON HAGLER	BIG THOMPSON	2,038	8/31/98	5,108	4/30/98	3,729
4	4137	LONE TREE	BIG THOMPSON	3,281	9/30/98	9,018	1/31/98	5,063
4	4133	LOVELAND LAKE	BIG THOMPSON	1,310	9/30/98	2,165	6/30/98	1,323
4	4134	BOEDECKER LAKE/MARINO	BIG THOMPSON	1,010	9/30/98	5,571	5/31/98	2,822
4	4146	WELCH LAKE	BIG THOMPSON	3,930	8/31/98	6,514	5/31/98	4,795
4		OTHERS		1,532		2,616		1,852
4		TOTALS		114,933		220,483		131,763

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 5

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
5	4020	BEAVER POND	BEAVER CREEK	551	9/30/98	2,161	5/31/98	614
5	4071	FOOTHILLS	ST. VRAIN	1,958	9/30/98	3,451	3/31/98	1,958
5	4037	HIGHLAND #1	ST. VRAIN	726	8/31/98	926	5/31/98	726
5	4032	HIGHLAND #2	ST. VRAIN	2,224	9/30/98	3,660	5/31/98	3,024
5	4038	HIGHLAND #3	ST. VRAIN	1,112	10/31/98	1,669	5/31/98	1,112
5	4073	MCINTOSH	ST. VRAIN	1,721	9/30/98	2,357	3/31/98	1,721
5	4063	PLEASANT VALLEY	ST. VRAIN	2,080	9/30/98	3,076	11/30/97	2,280
5	4067	OLIGARCHY RESERVOIR #1	ST. VRAIN	1,064	10/31/98	1,708	1/31/98	1,064
5	3905	UNION	ST. VRAIN	9,763	7/31/98	12,617	5/31/98	10,486
5	4076	LEFT HAND PARK	LEFT HAND CREEK	1,009	9/30/98	1,549	4/30/98	1,027
5	4488	LEFT HAND VALLEY	LEFT HAND CREEK	0	10/31/98	1,615	5/31/98	0
5	4010	BUTTON ROCK	ST. VRAIN	13,507	3/31/98	16,197	11/30/97	16,153
5	4379	NEW THOMAS	ST. VRAIN	895	11/30/97	1,644	8/31/98	1,587
5	4072	CLOVER BASIN RESERVOIR	ST. VRAIN	571	11/30/97	635	5/31/98	596
5	4081	LAGERMANN	LEFT HAND CREEK	949	10/31/98	987	3/31/98	949
5	4065	MCCALL RESERVOIR	ST. VRAIN	348	9/30/98	484	7/31/98	362
5		TOTALS		38,478		54,736		43,659

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 6

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
6	4269	ALBION	ALBION CREEK	600	9/30/98	1,111	11/30/97	600
6	4172	BARKER	BOULDER CREEK	1,445	3/31/98	11,276	6/30/98	7,956
6	4173	BASELINE	BOULDER CREEK	3,908	2/28/98	5,296	5/31/98	4,106
6	4515	BOULDER	BOULDER CREEK	1,300	8/31/98	4,200	4/30/98	3,000
6	4489	GOOSE	NORTH BOULDER CREEK	0	11/30/97	1,036	6/30/98	0
6	4199	GROSS	SOUTH BOULDER CREEK	30,805	10/31/98	41,547	5/31/98	30,805
6	4178	HILLCREST	BOULDER CREEK	1,897	9/30/98	2,207	5/31/98	1,897
6	4180	LEGGETT	BOULDER CREEK	1,369	9/30/98	1,601	5/31/98	1,369
6	4212	MARSHALL	SOUTH BOULDER CREEK	4,985	10/31/98	9,496	5/31/98	4,985
6	4185	PANAMA	BOULDER CREEK	7,033	9/30/98	10,897	6/30/98	7,933
6	4238	SILVER	NORTH BOULDER CREEK	2,191	4/30/98	3,996	11/30/97	3,931
6	4187	SIX MILE	BOULDER CREEK	560	9/30/98	1,230	3/31/98	800
6	4214	MCKAY LAKE	SOUTH BOULDER CREEK	356	8/31/98	726	6/30/98	420
6	4230	VALMONT	SOUTH BOULDER CREEK	6,715	9/30/98	7,426	5/31/98	6,715
6		TOTALS		63,164		102,045		74,517

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 7

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
7	3324	RALSTON	RALSTON CREEK	4,983	2/28/98	10,272	6/30/98	9,179
7	4415	LONG LAKE RESERVOIR UPPER	RALSTON CREEK	592	1/31/98	1,484	4/30/98	999
7	3406	COORS B #3	CLEAR CREEK	2,428	2/28/98	2,509	11/30/97	2,476
7	3407	COORS B #4	CLEAR CREEK	4,000	11/30/97	4,000	11/30/97	4,000
7	3308	BLUNN	CLEAR CREEK	4,500	9/30/98	5,462	12/31/97	4,500
7	3702	FAIRMOUNT	CLEAR CREEK	743	11/30/97	966	4/30/98	923
7	4411	MAPLE GROVE	SOUTH CLEAR CREEK	956	3/31/98	1,151	7/31/98	1,072
7		OTHERS		1,186		1,510		1,317
7		TOTALS		19,388		27,354		24,466

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 8

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
8	3514	CHATFIELD	SOUTH PLATTE	17,351	10/31/98	27,624	4/30/98	17,351
8	3532	CHERRY CREEK	CHERRY CREEK	12,797	9/30/98	14,213	7/31/98	13,079
8	3832	MCLELLAN	DAD CLARK DITCH	5,326	7/31/98	5,811	8/31/98	5,468
8	3983	STRONTIA SPRINGS DVR DAM	SOUTH PLATTE	6,382	11/30/97	7,531	10/31/98	7,531
8		TOTALS		41,856		55,179		43,429

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 9

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
9	3815	SODA #1, #2	BEAR CREEK	1,059	10/31/98	1,443	5/31/98	1,059
9	4281	BOWLES	BEAR CREEK	972	10/31/98	1,928	4/30/98	972
9	4314	PATRICK	BEAR CREEK	1,003	7/31/98	1,161	12/31/97	1,121
9	3999	BEAR CREEK RESERVOIR	BEAR CREEK	2,014	2/28/98	2,536	4/30/98	2,047
9	3501	MARSTON	SOUTH PLATTE	10,088	11/30/97	19,235	4/30/98	17,268
9		OTHERS		2,246		3,316		2,388
9		TOTALS		17,382		29,619		24,855

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 23

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
23	3904	ANTERO	S FK SOUTH PLATTE	5,190	11/30/97	20,081	10/31/98	20,081
23	3962	MONTGOMERY	MID FK SOUTH PLATTE	828	4/30/98	4,888	7/31/98	4,612
23	3965	ELEVEN MILE	MID FK SOUTH PLATTE	91,745	9/30/98	100,761	8/31/98	96,933
23	4013	SPINNEY MOUNTAIN	MID FK SOUTH PLATTE	29,117	4/30/98	46,101	7/31/98	35,736
23		TOTALS		126,880		171,831		157,362

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 64

PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
64	3552	PREWITT	SOUTH PLATTE	14,430	10/31/98	28,600	5/31/98	14,430
64	3551	NORTH STERLING	SOUTH PLATTE	2,370	9/30/98	74,590	5/31/98	4,670
64	3906	JULESBURG	SOUTH PLATTE	13,250	8/31/98	22,520	5/31/98	19,240
64		TOTALS		30,050		125,710		38,340

RESERVOIR STORAGE SUMMARIES BY DISTRICT{PRIVATE }

WATER DISTRICT 80

{PRI WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF YEAR
				AF	DATE	AF	DATE	
80	3550	CHEESMAN	S FK SOUTH PLATTE	63,786	9/30/98	79,502	5/31/98	53,838
80	3829	WELLINGTON	N FK SOUTH PLATTE	4,159	10/31/98	4,399	3/31/98	4,159
80	3828	ALTURA RESERVOIR	GENEVA CREEK	130	7/31/98	520	6/30/98	130
80		TOTAL		68,077		84,421		58,127

WATER DIVERSION SUMMARIES{PRIVATE }

{PRI WD	DITCHES REPORTING			OTHERS		ESTIMATED NUMBER OF STRUCTURE VISITS	TOTAL DIVERSIONS (AF)	TOTAL DIVERSIONS TO STORAGE	TO IRRIGATION		
	WITH RECORD	NO WATER AVAIL.	NO WATER TAKEN	NO INFO AVAIL.	NO RECORDS				TOTAL DIVERSIONS (AF)	NO. OF ACRES IRRIGATED	AVG AF PER ACRE
1	191	5	119	97	4,978	3,105	566,811	235,167	351,977	210,000	1.68
2	214	4	153	5	4,279	1,196	840,557	131,188	513,911	180,000	2.86
3	173	0	48	15	2,778	1,827	679,530	185,213	456,671	180,000	2.54
4	84	0	49	10	1,218	822	426,391	129,165	165,395	100,000	1.65
5	115	0	20	21	1,196	2,637	150,794	10,394	118,137	40,000	2.95
6	100	0	70	35	1,676	3,025	294,040	92,792	109,531	35,000	3.13
7	110	0	115	10	1,452	2,547	186,454	8,718	59,448	14,000	4.25
8	415	4	208	20	5,541	3,751	442,039	116,415	65,778	18,000	3.65
9	115	0	6	4	1,486	1,035	10,612	1,058	6,518	1,700	3.83
23	185	1	129	37	1,297	864	113,227	82,387	18,003	9,565	1.88
48	53	0	20	0	69	1,815	41,576	0	21,804	5,000	4.36
49	5	0	16	1	35	304	4,334	0	4,334	1,500	2.89
64	130	0	27	4	1,726	3,236	343,836	44,609	287,545	190,000	1.51
65	10	0	17	0	83		13,010	0	10,610	4,700	2.26
76	2	0	0	0	10		1,560	0	150	350	0.43
80	145	0	39	3	863		58,239	45,612	12,290	4,000	3.07
TOT	2,047	14	1,036	262	28,687	32,046	4,173,010	1,082,718	2,202,102	993,815	2.22

DISTRICT 9 DITCH VISITS COMBINED WITH DISTRICT 80

DISTRICT 48 DITCH VISITS COMBINED WITH DISTRICT 76

DISTRICT 49 DITCH VISITS COMBINED WITH DISTRICT 65

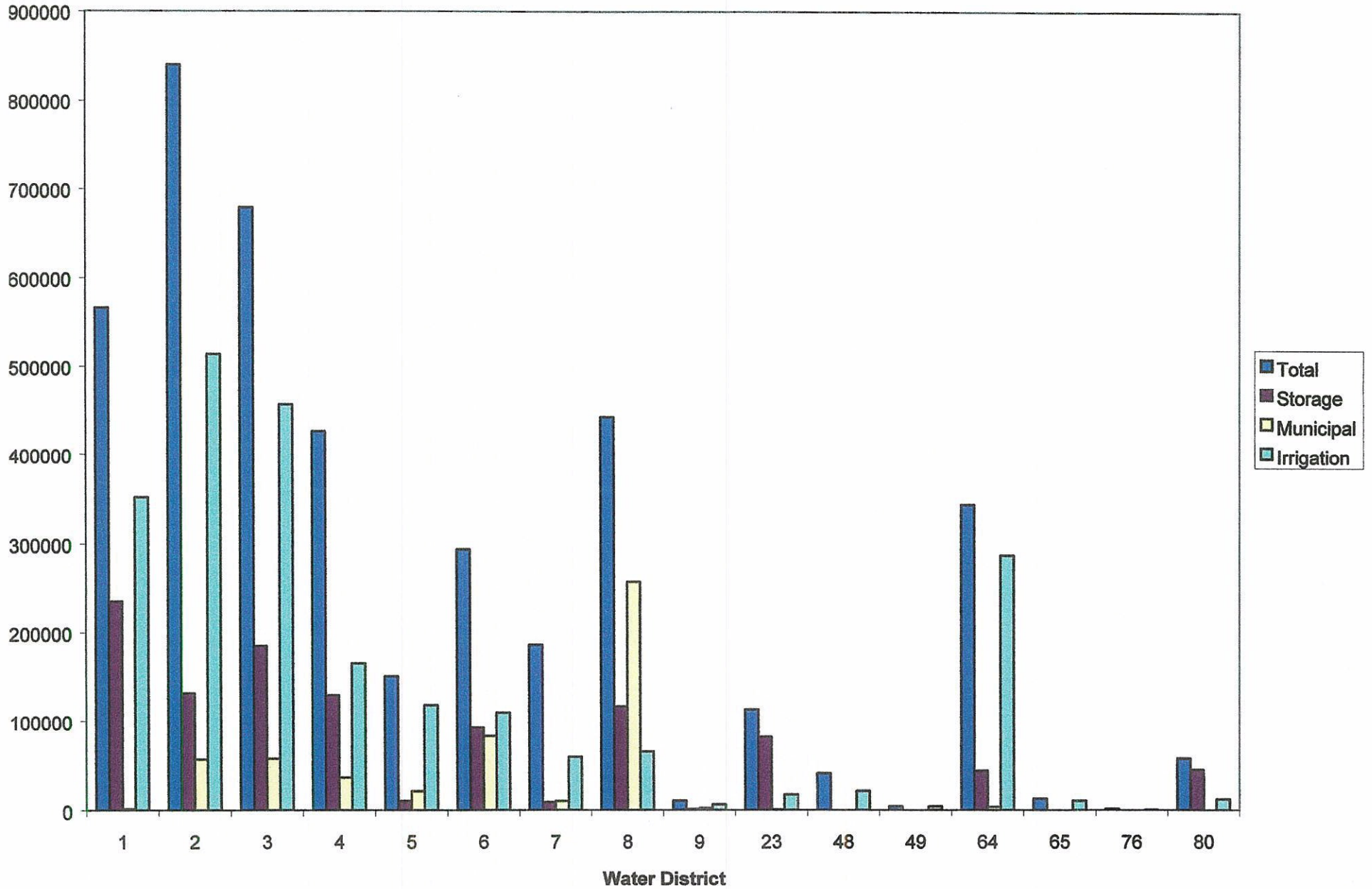
WATER DIVERSION SUMMARIES TO VARIOUS USE

WATER	TRANS-MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
1	0	0	1,532	0	7,924	14	0	40	168
2	0	0	57,057	6,402	2,605	39	0	0	7
3	0	0	57,673	0	3,263	0	0	29	0
4	0	133,799	36,802	41	24	0	0	0	0
5	0	0	21,701	23	0	0	0	30	0
6	0	4,953	83,175	22	1,091	0	0	0	0
7	0	47,743	9,934	8	47,666	0	0	0	0
8	0	11,066	257,642	517	3,542	0	4,219	12,177	160
9	0	0	2,279	35	101	0	6	0	0
23	10,830	0	411	0	3,842	3,628	49	0	369
48	19,772	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0
64	0	0	3,577	1,129	0	0	0	8	36
65	6,075	0	0	0	0	0	2,400	0	0
76	0	1,410	0	0	0	0	0	0	0
80	0	0	103	18	0	0	0	2	0
TO	36,677	198,971	531,886	8,195	70,058	3,681	6,674	12,286	740

	AUGMENTATION	EVAPORATION	GEOHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGE	OTHER
1	5,208	0	0	0	0	0	0	75,226	0
2	8,587	31	0	0	0	0	0	8,091	0
3	479	3,916	0	0	0	0	0	0	0
4	5,763	0	0	0	0	929,015	0	0	0
5	7,796	0	0	0	593	0	0	0	0
6	793	0	0	0	15,638	16,782	0	0	0
7	26,590	613	0	91	0	0	0	1,253	0
8	8,556	2,191	0	0	0	344,251	0	0	0
9	73	9	0	0	0	0	0	0	0
23	1,213	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	1,832	0	0	0	0	0	0	19,978	0
65	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0
80	34	0	0	0	0	0	0	108	0
TO	66,924	6,760	0	910	16,231	1,290,048	0	104,656	0

{PRIVATE }

**DIVISION 1
1998 Diversions**



WATER COURT ACTIVITIES{PRIVATE }
Calendar Year 1998

Applications made to water court this year.....	476
Consultations with Referee this year.....	518
Decrees Issued by Court this year.....	271
Dismissals.....	11
Complaints.....	1
Withdrawn.....	21

TYPES OF RULINGS

{PRIVATE }TYPE OF RULING	NUMBER OF CASES	NUMBER OF STRUCTURES
Findings of Diligence on Conditional Rights	48	238
Cancellations of Conditional Rights	2	15
Conditional Rights Made Absolute	24	60
Surface Water Rights Adjudicated	34	55
Underground Water Rights Adjudicated	125	348
Water Storage Rights Adjudicated	24	42
Plans for Augmentation Adjudicated	59	1,099
Changes of Water Rights Adjudicated	54	200
Instream Flow Rights Adjudicated	4	4

CALLING PRIORITY 1997-1998

{PRIVATE	Date Call						
Initiated	Released	Structure Name	Priority	Administration	District	Person	Districts
1997-98	1997-98		Date	Number		Placing Call	Affected
10/16/97	12/5/97	Cheesman	12/31/1929	29219.00000	8	Denver	23
12/06/97	12/10/97	Marston	04/01/1911	22370.00000	8	Denver	8,80,23
12/10/97	02/06/98	Cheesman	12/31/1929	29219.00000	8	Denver	23
02/06/98	03/20/98	Denver Intake	12/06/1910	22254.00000	8	Denver	8,23,80
03/20/98	04/7/98	Cheesman Reservoir	12/31/1929	29219.00000	8	Denver	23
04/07/98	04/27/98	Cheesman Reservoir	06/27/1889	14423.00000	8	Denver	23
04/07/98	04/23/98	Marston	04/01/1911	22370.00000	8	Denver	8,80
05/05/98	05/20/98	Three Mile Ditch	10/31/1892	23152.00000	23	Denise Paprocki	23
06/12/98	06/15/98	Burlington Denver Hudson	11/28/1907	21150.00000	2	Bob Stahl	8,9,80,23
06/16/98	06/17/98	Chatfield Bypass to Denver Hudson	12/28/1977	46748.00000	8	Denver	8,9,80,23
06/17/98	06/19/98	Burlington Denver Hudson	11/28/1907	21150.00000	2	Bob Stahl	8,9,80,23
06/19/98	06/20/98	Burlington Bypass to Jay Thomas	11/28/1907	21150.00000	2	Bob Stahl	8,9,80,23,7
06/20/98	06/23/98	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	8,9,80,23,7
06/20/98	06/29/98	Bijou	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,80,23
06/25/98	06/28/98	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	8,9,80,23,7
06/28/98	07/02/98	Meadow Island #1	04/29/1882	11807.00000	2	Bob Stahl	2,7,8,9,80,23
06/29/98	06/30/98	Ft. Morgan	10/18/1882	11979.00000	1	Mae Cunning	1,2,3,4,5,6
06/30/98	07/06/98	Springdale	07/19/1886	13349.00000	64	Jim Hanrahan	1,2,3,4,5,6
07/02/98	07/10/98	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
07/06/98	07/13/98	Harmony #1	04/28/1895	16554.00000	64	Jim Hanrahan	1,2,3,4,5,6,7,8,9,80,23
07/06/98	07/13/98	Bijou	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,80,23
07/13/98	07/19/98	Riverside Direct	05/31/1907	20969.00000	1	Mae Cunning	1,2,3,4,5,6,7,8,9,23,80
07/17/98	07/18/98	Meadow Island #1	04/29/1882	11807.00000	2	Bob Stahl	2,7,8,9,23,80
07/18/98	07/20/98	Fulton	07/08/1876	9686.00000	2	Bob Stahl	2,7,8,9,23,80
07/19/98	07/20/98	Bijou	10/01/1888	14154.00000	1	Mae Cunning	1,2,3,4,5,6
07/20/98	07/21/98	Platteville	10/15/1873	8689.00000	2	Bob Stahl	2,7,8,9,23,80
07/20/98	07/22/98	Springdale	07/19/1886	13349.00000	64	Jim Hanrahan	1,2,3,4,5,6
07/21/98	07/23/98	Lupton Bottom	09/15/1873	8659.00000	2	Bob Stahl	2,7,8,9,23,80

CALL RECORD 1997-1998 (CONTINUED)

Date Call	Date Call						
Initiated	Released	Structure Name	Priority	Administration	District	Person	Districts
1997-1998	1997-1998		Date	Number		Placing Call	Affected
07/22/98	07/24/98	Bijou	10/01/1888	14154.00000	1	Mae Cuning	2,3,4,5,6,7,8,9,23,80
07/22/98	07/24/98	Harmony #1	04/28/1895	16554.00000	64	Jim Hanrahan	1
07/24/98	07/26/98	Chatfield Bypass to Denver Hudson	12/28/1977	46748.00000	2	Bob Stahl	2,8,9,23,80
07/26/98	08/08/98	NoCall					
08/08/98	08/10/98	Burlington Intake	11/20/1885	13108.00000	2	Bob Stahl	2,8,9,80,23
08/10/98	08/12/98	Chatfield Bypass to Jay Thomas	12/28/1977	46748.00000	2	Bob Stahl	2,8,9,80,23
08/12/98	08/13/98	Burlington O'Brien Bypass to Jay Thomas	03/09/1908	21252.00000	2	Brent Schantz	2,7,8,9,80,23
08/13/98	08/14/98	Burlington Direct Bypass to Jay Thomas	11/20/1885	13108.00000	2	Brent Schantz	2,7,8,9,80,23
08/14/98	08/16/98	Burlington O'Brien Bypass to Jay Thomas	03/09/1908	21252.00000	2	Brent Schantz	2,7,8,9,80,23
08/16/98	09/02/98	Burlington Direct Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
09/02/98	09/04/98	Burlington Bypass to Jay Thomas	01/13/1909	21562.00000	2	Bob Stahl	2,7,8,9,80,23
09/04/98	09/09/98	Burlington Bypass to Jay Thomas	11/20/1885	13108.00000	2	Bob Stahl	2,7,8,9,80,23
09/09/98	09/14/98	Milton Reservoir	05/29/1909	21698.00000	2	Bob Stahl	2,7,8,9,80,23
09/14/98	09/28/98	Barr Lake	01/13/1909	21562.00000	2	Bob Stahl	2,8,9,80,23
09/28/98	10/02/98	Chatfield Bypass to Barr Lake	12/28/1977	46748.00000	2	Bob Stahl	2,8,9,80,23
10/02/98	01/21/99	Chatfield	12/28/1977	46748.00000	2	Denver	8,80,23

October 15, 1998

This is a clarification of the call records for the South Platte. While the expected calls on the river are usually the same from year to year, our nomenclature for describing the calls has been evolving. It is important to note that many calls on the South Platte are actually what we refer to as by-pass calls. In a by-pass situation, the structure that we note as having the call has the most junior priority to still divert water. While this structure may divert some water under this junior priority, it must also pass a portion of the water to a senior user downstream who dries up the river part of the day. In this case, we do not completely curtail the structure bypassing water because this would result in more water being available to the senior user than what they need. Any structure with a priority junior to the structure bypassing water and upstream of the structure being bypassed to is curtailed completely.

We were not always consistent in indicating the structure we were by-passing to was the structure drying up the river when we did use the by-pass nomenclature in recent years. Beginning in Water Year 1998 (November 1, 1997 to October 31, 1998), our call record clearly indicates the structure whose operator must pass a portion of the water to a senior user downstream. For example, if the Burlington Ditch is passing 50 cfs of its 11-20-1885 Burlington call to satisfy senior water rights including the Jay Thomas ditch (which dries up the river at least a portion of the day), this call will be described as a Burlington by-pass to the Jay Thomas with an administration priority date of 11-20-1885 and administration number of 13108.00000. Any user with a priority junior to 11-20-1885 on the South Platte or its tributaries above the Jay Thomas Ditch will be fully curtailed.

Staffing

Dam Safety Engineers	4
Water Resource Engineers	6
Engineering/Physical Science Techs (Includes 4 Hydrographers)	8
Administrative Assistants	2
Full-Time Water Commissioners	13
Permanent Part-Time Water Commissioners	6
Temporary Water Commissioners	<u>5</u>
TOTAL STAFF	44

Statistics

Decreed Surface Rights	12,193
Number of Well Permits	122,740
Number of Plans for Augmentation	496
Number of Dams	771
Number of Active Substitute Supply Plans	55
Number of Contacts to give Public Assistance	40,000+

Division 1

