

Annual Report To The State Engineer
Water Division IV
1999

STATE OF COLORADO

**DIVISION OF WATER RESOURCES
WATER DIVISION FOUR**

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March 1, 2000

Mr. Hal Simpson, State Engineer
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Dear Hal,

On behalf of the staff of Division IV, submitted herewith is the Annual Report for 1999.

Sincere appreciation is extended to yourself, your staff in Denver, and Division IV for the support and dedication provided in fulfillment of our statutory and professional duties.

Sincerely,

Wayne I. Schieldt
Division Engineer

WIS:jp

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ACCOMPLISHMENTS

Water Administration

The watershed of the Gunnison experienced a very unusual combination of snow pack and summer rains this year, making one wonder just what is an 'average' year. The snow pack percentages were looking grim throughout the winter, but spring snows began in April, and by the end of May had bolstered the snow pack to above-average amounts. The spring snows also helped to increase the initial soil moisture for the irrigators. The winter temperatures were also milder than normal, causing one long-time Gunnison resident to say it was the warmest winter that he ever remembered. The fruit trees in the Hotchkiss and Paonia area budded early and were severely damaged by a frost in May.



This unique sequence of moisture and warm temperatures caused numerous administrative problems. The lack of moisture during the winter caused the stream flows to drop drastically. A phone call was received April 19, 1999 from Greg Strong, Manager of Redlands Water and Power Company. The Redlands Canal has a 1912 water right for 570 cfs and a 1959 water right for 80 cfs. At the time they were only getting 691 cfs in the canal. Greg did not place a call, but stated he would if the flow got any lower. This river call has not been activated since August of 1989, and would have placed the entire Gunnison Basin on call. This would have a monumental impact on the system, requiring curtailment of many structures in the Gunnison Drainage.

In 1997, a fish ladder was constructed by the US Fish and Wildlife Service (USF&WS) to allow endangered fish to travel upstream around the Redlands Diversion Dam. The ladder operates in two parts; 19 cfs which flows through the ladder itself, and 50-75 cfs attracting flow which diverts water and returns it into the river at the bottom of the ladder. On April 19, there was approximately 80-90 cfs running around the Redlands Diversion Dam for the fish ladder. Administratively, this fish ladder would be the first structure that would be shut off in a river call situation. The USBR has an agreement with the USF&WS to release enough water out of storage in Blue Mesa Reservoir/Curecanti Unit to cover the out-of-priority diversion at the fish ladder. The problem is, it takes three days to get water released from Crystal Reservoir to the Redlands Canal.

After the phone call was received, the USBR was immediately contacted to start their releases out of Crystal. Fortunately, the flow in the Redlands Canal stayed steady for the next three days, and when the reservoir releases arrived, the potential for a river call was averted. With the late spring snows and rains in May, the flow did not approach the critical level again.

Another result of the low flows was the entire Surface Creek system being placed on call March

18, 1999. Many water users were concerned with the low snow pack and dry conditions and wanted to get their crops irrigated early. The early call stayed on for about a month. There is not usually a river call before the spring runoff starts in April. The irrigators also were considering ordering reservoir water in March and April. This would have created an administrative problem for this office, since the three part-time employees that turn reservoir water do not start until May 1. Fortunately, the rains and snow started and the irrigators were satisfied.

In all areas of the Gunnison Basin, there were large carry-overs of reservoir water. The spring runoff was fairly normal basin wide and the month of June was dry as usual. In the middle of July, the summer rains started and continued through the first part of September. As a result, many irrigators struggled with putting up hay and harvesting crops. In the Uncompahgre River basin, there was an abundant supply of water. The Uncompahgre Valley Water Users Association, with their Uncompahgre Project water rights, usually place a call on the river in late July and start running their reservoir water out of Ridgway Reservoir. This year, they did neither. Also, the San Miguel River system did not experience a shortage that would have necessitated a river call. The months of September, October, and November were exceptionally dry, causing an extremely poor start for the winter snow pack.

The effort to install Parshall Measuring Flumes on all ditches in the Upper Gunnison Basin was continued this year, and was successful in getting many flumes and headgates in place. These flumes have greatly assisted the Water Commissioners in obtaining accurate flow readings in the many ditches that are recorded each year. Water Commissioners Richard Rozman, Bonnie Irby, and Carl Hurst are to be commended for their perseverance in working with water users to gain their trust, respect, and cooperation in installing these structures.

Of special note was the flood event that occurred on Dallas Divide this summer. Saturday evening, July 31, the weather station 5.3 miles west of Ridgway recorded 3.1 inches of rainfall. This was after receiving 0.8 inches the day before. The weather station 7 miles southwest of Ridgway and at a higher elevation recorded 1.4 inches and 1.3 inches the day before.

The resulting wall of water cascaded down Dallas Creek, wiping out numerous bridges, obliterating the gaging station, and finally dumping into Ridgway Reservoir. The gaging station has never been found and is presumably in the bottom of the reservoir. Jerry Thrush and Jim Norfleet measured cross sections of the flooded channel and calculated the peak flow to be around 2500 cfs. An analysis of the change in lake levels conducted by the USBR showed a peak flow of 2340 cfs. The Dallas Creek flow before the July 31 rain started was 29 cfs. Ridgway Reservoir spilled for several days after the event. Leopard Creek, located on the west side of Dallas Divide, experienced similar flooding flows that also caused extensive damage. The precipitation data from this event will be incorporated into the high altitude extreme precipitation study currently underway at Colorado State University.

Personnel/Budget

On December 21, 1998, Wayne Schieldt was named as the new Division Engineer, succeeding Ken Knox, who moved to the Denver office to become Assistant State Engineer. On March 16, 1999, interviews were held for the Assistant Division Engineer position with three highly qualified candidates. The selection panel, comprised of numerous members of the Division 4 staff, selected Frank Kugel as the top candidate. Frank was formerly the Dam Safety Engineer in Divisions 3 and 7, and brings a lot of valuable knowledge and experience into the position.

District 40 deputy Water Commissioners Albert Mahannah and Chuck Stein retired in 1999. Gerald Figueroa was hired on April 5 to assume Chuck's responsibilities. Dale Parker was hired on July 5 to assume the reservoir administration on the Ward Creek and Young's Creek drainages, replacing Albert. Both employees have done a commendable job in their first year.

Division 4 again hired a student for the Youth in Natural Resources (YNR) program. Justin Mavity was a bright, enthusiastic individual who was eager to do a variety of tasks, both in the office and in the field. Luann Beasley continues to provide leadership for that program and gives an opportunity for the student to be exposed to work in the field of natural resources.

Jean Pierce, the Program Assistant in the Division 4 office, and Assistant Division Engineer Frank Kugel continue to enter payment vouchers on the COFRS system. Training was offered in September to learn the modified system, which has become more user-friendly. Although the printouts from this system need to be improved, it continues to be a good system to track operational expenses. Jean and Frank do an exceptional job entering vouchers and keeping track of the Division 4 budget.

The 1999 Water Commissioner of the Year was Carl Hurst. Carl works in the Lake City area in District 62, and has consistently performed above and beyond his normal duties. He has led the charge in this division for GPS units, buying his own and learning how to use them. He also initiated the use of topographical mapping software, and used it extensively in field inspections for water court applications, providing useful maps for the office to use on consultation reports.

The Division 4 staff is second to none, and this courteous, professional and dedicated group continues to provide the highest level of service for the water user community.

Hydrography

The hydrographic responsibilities are somewhat up and down, but stay on a charted course. Hydrographer Jerry Thrush provides maintenance and measurements that keep the discharge information flowing to the various water users, government agencies, staff members and the general public. He is assisted by Steve Tuck, who adds part-time hydrographic responsibilities to his full time Water Commissioner work. They also provide administrative measurements for Water Commissioners, which in turn allows for more accurate determination of decreed amounts and better diversion records.

In 1999, the hydrographers made numerous measurements at USGS operated gaging stations, supplementing their measurements. The USGS normally reduces their measurement schedule to once every six weeks in the summer and fall. Since that is our critical administrative period, more frequent measurements need to be made to assure accuracy of shifts. For certain gages where the information was critical to diversion records, this office also worked up the records using both agencies shifts. This has required extra time of the hydrographer.

One of the casualties of Y2K was the timely death of the VAX computer in the Denver office. This computer has been used to receive and process satellite monitoring data from gaging stations for a long time. Early indications this summer were that it would cease functioning on October 1st, when the 2000 water year started. The IT section has worked hard to get the new NT system working to process the data. The hydrographers started preparations late this summer collecting data from data loggers and backing up daily readings for each station. When the VAX quit working on October 1st, the NT system was ready to process the data. Fortunately, the IT staff was successful in restarting the VAX just to process 1999 water year records with the record development program. For gages that needed to be worked up for diversion records (November 1 through October 31), the month of October data was processed using a record development program developed by Scott Veneman in the Division 3 office. Given the difficult circumstances, Jerry and Steve have done an excellent job in processing the records, both for diversion record information and publishing.

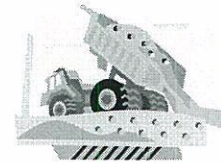
Dam Safety

Resident Dam Safety Engineer Jim Norfleet performed 75 annual safety inspections in 1999. One of these inspections resulted in the imposition of a reservoir storage restriction (see Cedar Mesa Dam, below). Jim also conducted internal outlet inspections on two dams using a remote camera sled he developed. These internal inspections can reveal serious safety problems that would otherwise go undetected and potentially cause failure of the dam.

Water Commissioners conducted dam safety observations on 39 Class III dams. The Commissioners are a tremendous asset to the Dam Safety Program in that they frequently visit many of the dams and are very familiar with the performance of these structures. Water Commissioners often are the first to report signs of dam safety problems, and they provide a great asset to dam owners by assisting in the monitoring of existing problems.

Repair work began on the Carl Smith Dam in July 1999. This Class I dam on Grand Mesa suffered a partial breach on May 2, 1998, when a structural slide occurred near the right abutment. This slide occurred when the reservoir was full, and resulted in an estimated peak flow of 3500 cfs. The Leroux Creek Water Users Association excavated a full breach of the slide area in the fall of 1998. The lack of storage in Carl Smith Reservoir was a severe burden on the Leroux Creek system. Not only does the reservoir function as the regulating storage vessel for the delivery system, but also provides an additional 800 acre-feet of storage to the system's total of nearly 4000 acre-feet.

Construction at Carl Smith was hampered by monsoonal weather patterns throughout August and September. The contractor was also at a disadvantage working at an elevation of 8200 feet, since the construction season was significantly shortened. Nevertheless, thanks to long hours and some long-overdue good weather in September and October, the major components of the dam were made functional. Only some smaller items await completion in the 2000 construction season, when at last this important irrigation feature can resume full operation.



Safety concerns reappeared at Cedar Mesa, another Class I dam on the Grand Mesa. High levels of embankment saturation had been noted in previous inspections. Modifications were made to the operating plan in 1999 in an attempt to lessen the degree of saturation. It was hoped that limiting the amount of time the reservoir was at high storage levels would result in a lower phreatic surface within the embankment. In 1999, the reservoir was not filled until late in the runoff season to allow the embankment soils to dry out as much as possible. Unfortunately, once the reservoir reached higher storage levels, the previously reported areas of saturation reappeared. It became evident that more extensive measurements were necessary to enable the reservoir to store its full capacity. The State Engineer imposed a storage level restriction to ten feet below the spillway to increase the factor of safety for the embankment. A geotechnical investigation, including the sampling of embankment soils and the installation of piezometers, was undertaken in late 1999. It is anticipated that the results of this investigation will be available in early 2000.

Groundwater

Growth in the Gunnison Basin has continued to demand the need for public service with well permits. The Well Commissioner, LuAnn Beasley, provides a high level of public service, answering questions from individuals, real estate agents, county planning personnel, and personnel from the Denver office. She again issued well permits for exempt domestic, livestock, household-use-only, late registrations, replacements, change of locations, and household and domestic/livestock wells that are incorporated within an approved plan for augmentation or substitute supply plan. In 1999, as part of a plan to further decentralize the well permitting process, LuAnn issued non-exempt well permits for areas where the river system is not over-appropriated. The only types of well permits that she doesn't issue are geothermal and large capacity wells in augmentation plans. The issuance of permits in this office continues to provide a valuable service to the public, usually granting the permits within a week's time.

LuAnn continues to use WordPerfect 5.1 to process permits. A new permit processing system was developed in 1999 and she has received training on how to use it. The IT staff in Denver is in the process of working out the remaining bugs in the program, and hopefully it will be ready soon. The Wellbrow program was also replaced with WellView, a Windows based program that has a much better format for displaying information about the well.

Records and Information

The quality and reliability of diversion records continue to be important in Division 4. Diversion records for all districts have been completed for the 1999 irrigation season. Frank Kugel, the new Assistant Division Engineer, took over the task of coordinating the diversion record project. The Water Commissioners did a fine job of adapting to yet another Assistant's way of doing things.

Division 4 staff did not enter new data or changes into the water rights tabulation during the winter of 1998-1999 in anticipation of using the new Hydrobase records system. Both the 1998 and 1999 data were entered into the tabulation in the winter of 1999-2000 using the existing Rights program.

The GIS system continued to be a very useful tool this year. The office GIS expert, Lynne Bixler, has become very proficient in the use of ArcView software. She has the capability to manipulate databases and generate topographical maps for a variety of uses. The addition of GPS data (see Special Projects, below) has proven particularly useful when generating maps showing decreed versus actual locations.

Special Projects

Fieldwork in Division IV has benefited greatly from the use of Global Positioning System technology. Division 4 purchased four additional Garmin 12XL GPS receivers in May 1999. These hand-held GPS units have become an important tool for verifying locations for new water rights as well as locating old structures. GPS receivers are particularly helpful in areas that have no surveyed section lines. In these areas, we are encouraging water court applicants to include GPS coordinate locations with any new water court filings.

One example of the value of GPS technology took place in District 40. Gerald Figueroa, our Water Commissioner for the Current Creek and Dry Creek Basins, needed to locate two old ditches. The owner's description of the ditches did not match the decrees. Gerald and the ditch owner spent a day in a rugged, remote canyon, climbing over rocks and through oak brush in an attempt to find these structures. Unable to locate the Oak Park Ditch during his first visit, Gerald returned with his Garmin 12XL. Having entered the original decreed location into the unit, he was led right to the structure. It had been altered by floods and grown over with vegetation, yet Gerald's knowledge of GPS technology enabled him to locate the structure in a matter of minutes.

Another example of the use of GPS technology took place in District 62. Carl Hurst, our Water Commissioner for the Lake Fork of the Gunnison River, needed to do a field inspection. The water court application contained filings for twelve springs. Prior to his field inspection, Carl used TOPO mapping software to determine the GPS coordinates of the locations given on the application. He then met the owner on-site and went to each spring,



taking actual location GPS readings. A comparison of the “actual” versus “application” locations revealed several significant errors. Using the TOPO software, Carl made a map showing the actual GPS locations with labels showing spring names and GPS coordinates. The Bureau of Land Management had protested that several of these structures were on their land. The lack of fence lines and survey markers would have made this determination difficult, if not for Carl’s GPS work. A meeting took place with BLM officials and the landowner, culminating in an agreement to withdraw the filings located on BLM property. Carl emailed the map created with the TOPO software, along with the amended application, to the BLM attorney, who then withdrew their statement of opposition.

Division IV is committed to the continued use of GPS technology. We have been assigned the task of evaluating low-cost mapping software to be used in conjunction with our Garmin GPS receivers. This combination has great potential for improved data accuracy and to expedite the process of evaluating water court and well permit applications.

SIGNIFICANT WATER ISSUES

Subordination Contract



In 1997 and 1998, Division 4 personnel and counsel from the Attorney General’s office met with officials from the USBR, the Colorado Water Conservation District and the Upper Gunnison River Water Conservancy District to formalize the long standing commitment to allow up to 60,000 acre-feet of in-basin depletions to occur upstream of the Aspinall Unit. In the fall of 1998, the final form of the written contract was presented to the USBR for their signature. In January of 1999, the contract was sent from the USBR regional office in Grand Junction to the Washington, DC office. Evidently, the Department of the Interior, Solicitors Office wanted to review the language of the contract for NEPA Compliance and agreement with the Endangered Species Act. In September, the Commissioners approved the contract and sent it back to the Grand Junction office to complete the final phase of its approval, consisting of the Environmental Assessment and the FONSI (Finding of No Significant Impact). When both of these phases are completed, Carol DeAngelis, Regional Manager for the USBR Grand Junction office, will execute the contract with the other parties involved. If there are no additional delays, the signing should be completed by April, 2000.

Application for changes of conditional water rights and reasonable diligence of the Upper Gunnison River Water Conservancy District.

In December 1998, the Upper Gunnison River Water Conservancy District (UGRWCD) filed an application (98CW240) for changes of conditional water rights. A subsequent case was filed in May 1999 (99CW38) for finding of reasonable diligence on the same structures. These water rights were originally decreed as part of the Upper Gunnison Basin Project, and the only part of the project built is the Aspinall Unit. In the previous diligence case, 99CW183, Judge Brown

made it very clear that UGRWCD must “significantly narrow the scope of its project to the features of the total project which are most likely to be constructed within the reasonably foreseeable future, that it will identify and make appropriate transfers of water rights, and that with respect to those features the Applicant will complete all necessary Phase I Feasibility Studies and conceptual analyses, and in addition, to the extent practical in a staged development plan, the Applicant will perform adequate site-specific work on each feature which it intends to pursue, and with respect to the feature or features to which it gives the most priority, the Applicant will make significant progress toward completion of Phase II Feasibility Studies and the Environmental Impact Statement phase of its project development.”

The State Engineers office, through the Attorney General’s Office has filed a statement of opposition to case 98CW240. Field inspections have been completed and numerous meetings have been conducted with the State Engineer’s counsel in the Attcrney General’s Office, Steve Steve Sims, and Manager of UGRWCD, Kathleen Klein, Engineer Duane Helton, and Counsel John Hill. The issues with the State Engineers Office have yet to be resolved, but should be rectified by the middle of the year 2000. There are numerous other opposers, and the case could take some time to settle.

Application for Water Rights of the Board of County Commissioners of the County of Arapahoe, in Gunnison County.

In 1998, the Board of County Commissioners of the County of Arapahoe filed an appeal to the Supreme Court of Judge Brown’s April 6, 1997 decision. In September 1999 Sims, continued this process by filing an Objectors Brief to the Supreme Court. He was one of seven who filed a brief on behalf of the objectors to the appeal. He will also be presenting oral arguments in February of 2000, as the State endeavors to get this case wrapped up.

Evaluation of Consumptive Use in the Upper Gunnison Basin

This office initiated the process to quantify the depletions in 1998 by meeting with Ray Bennett, Ross Bethel, and Tyler Martineau of the UGRWCD. It was a natural extension of the CRDSS modeling program that has already been developed. The program needed to be modified to calculate consumptive use on individual priorities of water rights. The depletion analysis program, labeled GUNNCU, was developed in January of 1998. Since then, Division 4 has spent considerable amount of time correcting and fine tuning the database to accurately reflect irrigated acreage for each diversion structure and the historic diversion records tied to each. The Colorado River Water Conservation District (CRWCD) hired Helton & Williamsen, P.C., to review the GUNNCU Program and determine its adequacy in the 10,000 acre-foot reaches between Blue Mesa Reservoir and Crystal Reservoir. The UGRWCD has also hired their former Manager, Tyler Martineau, to review the GUNNCU program in the 40,000 acre-foot reach above Blue Mesa Reservoir.

In 1999, numerous meetings were held with personnel from the UGRWCD, CRWCD, Helton & Williamsen’s office, Ray Bennett, and program developer Ross Bethel. Thorough reviews of the

program resulted in various recommendations for changes and refinements, both in data and the program itself. This office responded to the data changes by meeting with Jim Young of Helton & Williamsen, P.C., and Tyler Martineau to further refine the irrigated acreage and diversion record databases. Since the CRDSS project initially created the program, the CWCB has agreed to finance some of the changes and refinements. The River Districts will likely finance some additional changes to the program as well.

While the GUNNCU program was being reviewed, the CRDSS program used some of the principals of GUNNCU and developed a separate program called STATECU. While GUNNCU used a spreadsheet format, STATECU took the same principles and changed it to a Visual-Basic format, which is much more user-friendly. Supposedly, if the two programs used same data sets, the results would be the same. After a comprehensive review of both, the group decided to use the STATECU program and proceed towards finalizing the refinements and enhancements. This will likely be completed in the year 2000.

Once the Subordination Contract is signed, the two River Districts will investigate the viability of a basin-wide augmentation plan to cover uses when the system experiences a Gunnison Tunnel or a Redlands Canal call. The STATECU program will be used to determine the out-of-priority uses that will require augmentation. The Division 4 office has been very active in this project, and will continue to do so. It was the goal from the start that just one program be used to evaluate the consumptive uses in the Upper Gunnison Basin. By working cooperatively through the development and finalization of the STATECU program, all of the parties involved can agree on the results and use them appropriately.

INVOLVEMENT WITH THE COMMUNITY

The goal of this office is to provide superior public service to water users, our constituents, and the general public. Water is becoming an increasingly valuable commodity for a wide variety of users and uses. To meet these demands, this office must be an active leader in the water user community, and it is essential to build respectful and trusting relationships with members of the community. Members of Division 4 staff attend numerous Water Users Association and Conservancy District meetings, teach at water festivals, give presentations to Real Estate Agent conferences, and meet with County Planning officials. As new people move to western Colorado, many are ignorant of Colorado Water Laws and the Water Commissioners spend a great deal of time explaining how these laws work and are applied to their property. This office provides a public service by providing initial mediation on inner-ditch problems. Because the Water Commissioner is recognized as the water expert in the community, they are often successful in settling problems between neighbors by providing a sensible and peaceful solution. Numerous calls come into the office each week pertaining to access and easement issues. Although Water Resources has no formal jurisdiction with these issues, a comprehensive

knowledge of the law enables us to provide assistance through education.

COMING YEAR – KEY OBJECTIVES

Subordination contract and basin-wide consumptive use analysis

It is vital to the Upper Gunnison Basin that the 60,000 acre-foot Subordination Contract is signed. A recent water court case, 96CW311, was denied because of the uncertainty of the junior rights being subordinated to the Curecanti Unit's power and storage calls. This case is discussed later in this report. Finalizing the contract will end the uncertainty and assure the water users of the subordination protection. The contract requires the UGRWCD to annually report to the USBR the amount of consumptive use that occurs in the basin during each year. The STATECU program has been developed to fulfill this need, as well as give the UGRWCD and CRWCD a tool to begin planning their basin wide plan for augmentation that would cover out-of-priority uses in the case of a river call by the Gunnison Tunnel or the Redlands Canal.



Installation of Headgates and Flumes

The project to install headgates and measuring flumes on all ditches in Districts 28, 59, and 62 was started in 1995. Because of the volume of the structures involved, about 130 for each district, one-third of the orders were sent each year. All of the orders have been sent for districts 59 and 62, and the remaining structures in District 28 will get orders in March of 2000. The cooperation and compliance has been very good, with only a few failing to get the structures installed. The Water Commissioners have done a tremendous job in informing the ditch owners that orders were coming, explaining to them why we need the structures, and working with them to provide technical and location assistance to install the flume and headgate. We are endeavoring to complete this project this summer.

Selenium Task Force

The Division Engineer and Assistant Division Engineer continued their involvement with the Selenium Task Force in 1999. The task force is a group of Federal, State, County, and Local Agencies as well as local water users that want to proactively find a solution to the selenium problem before it is mandated by the Federal Government. The Task Force (TF) is studying a multitude of issues from setting up specific monitoring sites and studying non-point sources to the piping of laterals to reduce leaching and growing of crops that remove Selenium from the soil. It will probably be a lengthy process, but is important for this office to stay involved to preserve the right of water users to divert and use their water rights according to State Law.

US Forest Service Forest Management Plan

In September 1999, the US Forest Service (USFS) submitted a “notice of intent to prepare an environmental impact statement (EIS) in conjunction with revision of the land resource management plan for the Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG)”.

It is anticipated that this process will be very similar to the one now being conducted in the White River National Forest. The Division 4 Office, in conjunction with the State Engineers Office and the Executive Directors Office, will be providing comments and feedback to the USFS in this process. The following three items will be addressed:

1. This office must protect the ability of water right owners to exercise and utilize their water rights as dictated under Colorado State Statutes. Many of these rights were established prior to the establishment of the Forest Service and should not be subject to special use permits, or any other restrictions on their water rights. Others are protected by the ‘Ditch Bill’, a legislative document which the USFS seems to be ignoring at this juncture
2. The State Engineers Office is charged with the determination of safe storage level in reservoirs. The Dam Safety Engineer must have reasonable access to all reservoirs in the GMUG forests for periodic inspections. Dams are subject to a continual degradation from natural forces and require occasional maintenance and repair. It is essential that they be allowed to access and work on the dam without burdensome special use permit issues on the area surrounding the dam and access roads into the reservoir. The users must also be able to construct and maintain the measuring devices below the dam that we require them to install. Additional, Class I and Class II dams must have immediate access in case of an emergency situation with the embankment, when water must be evacuated and the dam continually monitored.
3. Water Commissioners must have free and unlimited travel access to the dams to properly administer the reservoir releases and read measuring devices. They have a system of roads and trails that are used for efficient travel between structures and these must be preserved.

A group of water users on the Grand Mesa have formed an alliance to present their concerns to the USFS. The Division 4 Engineer has committed to involvement in the group while addressing the issues listed above. Being involved in this process is likely to be time intensive, but is critical to this division and its customers. Working on this project with the water rights owners on the Grand Mesa will develop good working relationships, something that will reap rewards for some time to come.

INFLUENTIAL CASE LAW, STATUTES, AND PROJECTS

Quantification of United States Park Service Water Rights in Black Canyon National Park

In 1999, Black Canyon National Monument became Black Canyon National Park. This culminated the long and intensive effort by several Colorado Legislators. Park officials have assured the water users in the Gunnison Basin that the change in status will not change the water rights whatsoever.

On December 15 and 16, 1998, the United States Park Service (USPS) presented its plan to quantify their Gunnison River water rights in the Black Canyon National Park. These water rights were filed in the Water Court in 1971, but the case was not settled until 1978. The subsequent Colorado Supreme Court Case, U.S. v. Denver, was finally determined in 1983. The rights were decreed as Federal Reserve (original) Water Rights, and the amounts have remained undefined until now.

The USPS seeks to restore somewhat of a natural hydrograph and has summarized their flow needs in the Black Canyon National Park as follows:

- Variability, based on the availability of water in the given year,
- Minimum base flow of 300 cfs or more--this ensures survival of aquatic life in the canyon,
- Annual peak between May 1-June 30, three to fourteen days in duration, 3,500-12,000+ cfs flow and ramping rates of 250-500 cfs/day or ten percent/day.
- Shoulder flows on each side of the peak

Given these flow needs, the USPS has formalized their proposal as follows:

1. All flow unappropriated as of March 2, 1933,
2. Subordinated to water rights prior to November 13, 1957 (co-equal with the Aspinall water rights),
3. Adopt the same subordination to future depletions in-basin, upstream from Crystal Dam as the Aspinall water right (i.e. 60,000 AF/yr.)

Undoubtedly, the proposal of "all flow unappropriated as of March 2, 1933" has this office concerned. On January 17, 1999, a meeting was held with various water users in the Gunnison basin to facilitate discussion on reaction to the USPS proposal. Since then, these users have submitted comments to the proposal. The process seems to have been put on hold until the US Fish and Wildlife Service completes their synthesis report on the needs of the endangered fish in the Gunnison River. Perhaps the largest struggle will be within the Federal family (USBR, WAPA, USPS, USFWS, and BLM). Indications are this will be a lengthy and difficult process, one this office will watch carefully.

Determination by Judge Steven Patrick on application by the Mount Emmons Mining Company



In case 96CW311, The Mount Emmons Mining Company filed for numerous reservoirs, ponds

and intake structures on the Slate River and Carbon Creek for mining and milling purposes. This application faced stiff opposition from the residents in the area, and the trial was set for July 19 through August 6, 1999. Assistant State Engineer Ken Knox testified on July 28, 1999 and was assisted by Steve Sims of the Attorney General's office. Two very interesting conclusions came out of Judge Patrick's ruling on September 1, 1999:

1. Environmental groups have fought for years to gain entry to water court trials of this magnitude. The Judge stated in pretrial rulings:

"Finally, in the Order entered at the trial management conference, the Court ruled that the "environmental groups" had standing to participate at trial since their statements of opposition were based on legally recognized grounds, despite not owning water rights subject to any "injury" by Applicants proposed use of water."

This ruling directly contradicted Supreme Court Case No. 92SA68, In re Matter of Board of County Commissioners of Arapahoe County, 891 P.2d 952 Colo. (1995). That ruling from the Supreme Court stated:

"A cross appeal was filed by a local homeowners association (cross-appellant) and local state, and national environmental groups. The cross-appellants contend that the water court erred in not considering the alleged impact the Union Park Project would have on the natural and man-made environment in the Gunnison River Basin... The cross-appellants content the first prong of this inquiry requires the evaluation of environmental factors because an applicant must prove "beneficial use." The cross-appellants assert that this phrase inherently encompasses a broad public policy of protecting the natural and man-made environment. We disagree. The general assembly has defined "beneficial use".... 37-92-103(4), 15 C.R.S. (1990). In enacting this definition, the General Assembly referenced the mechanism it established to address protection of the environment—instream flow legislation. In enacting instream flow legislation, the General Assembly granted the CWCB "exclusive authority" to appropriate minimum stream flows in natural streams and minimum levels for natural lakes. This legislation recognizes the need to protect the environment... Thus, the General Assembly has established a statutory mechanism whereby the state can protect the interests that concern the cross-appellants."

This specific matter will undoubtedly be looked at closely during the appeal process before the Colorado Supreme Court.

2. The water availability for this application hinged on the USBR subordination contract, which has not been signed yet. Judge Patrick ruled:

"The Court recognizes that the history within this district has been to honor the subordination (depletion) policy committed to by the United States at the time of the establishment of the Aspinnall Unit without formal recordation or documentation of a contract. By the same token,

however, as Judge Brown detailed, the Bureau of Reclamation may only authorize such subordination (depletion) or sale of water by contract, ...Mr. Knox confirmed that the State and Division Engineer now adhere to Judge Brown's Order. Based on that, and the admission by Thompson as well as the testimony of Helton, that without reliance on the subordination by the Bureau of Reclamation, there was not sufficient water available for the Mt. Emmons Project, the Court must deny this application."

The Judge ruled favorably in all matters of the case except water availability, which was the only issue that justified denial of the application. This ruling seems to indicate that without the subordination contract agreement in place, there is no water available for junior appropriators. Contrary to that is the fact that Judge Brown continues to sign decrees for junior water rights in the Gunnison Basin. This ruling has emphasized once again the need for the subordination contract for the water users in the Upper Gunnison River Basin. Once the subordination contract is signed, then Judge Patrick should remand the decision and issue approval for this application.

GREATER EFFICIENCY IN DIVISION 4

Division 4 strives to do our jobs more efficiently. On one hand, Water Commissioners continue to administer water rights the same as they have for 75 years, traveling up and down the creeks to check each ditch and ensure they have the correct amount of water. On the other hand, the world of technology is moving faster than most of us can keep up with. The key is finding the technology that will help us in our daily duties, apply it to our individual circumstances, get the appropriate training, and convince our people that it will help them do their job better. Change is sometimes hard for employees to accept, but is vital for utilizing technology to its fullest.

One key area we have identified is in the use of Global Positioning System technology. A long-term goal is to fully utilize the benefits of this technology to obtain GPS-verified locations for *all* active structures in Division 4. We would then reproduce USGS quad maps containing the actual location of these structures. In order to accomplish this goal, we must provide a GPS receiver and mapping software to each of our 22 Water Commissioners. Since each receiver package costs \$400 (receiver, power/data cable, remote antenna and software), we will need several years, or a new source of funding, to obtain the necessary tools. Once these tools are in place, we will have the capability to refine the Hydrobase data to reflect the most accurate information available.

Another key area for increasing efficiency is the utilization of mapping software for the entire staff. The ArcView software program is very powerful, but is too costly and complicated for use by most of the staff, especially those not in the office. We have begun the test of TOPO software for common applications in identifying locations of structures. This should decrease hand plotting of points and make them more accurate as well. It should provide a valuable map of

structures and show the relationship to nearby structures that might be affected.

Our goal is to provide the staff with the tools and provide the training so they can apply the equipment and technology to do their job as thoroughly and efficiently as possible.

A. TRANSMOUNTAIN DIVERSION SUMMARY--INFLOWS

RECIPIENT								SOURCE		
				10-YR AVERAGE		CURRENT YR				
WD	ID	NAME	STREAM	AF	DAYS	AF	DAYS	WD	ID	STREAM
68	N/A	Carbon Lake D	Uncompahgre	371	* 97	819	131	30	4665	Animas R.
68	N/A	Mineral Pt D	Uncompahgre	***190	* 61	151	75	30	4661	Animas R.
68	N/A	Red Mountain	Uncompahgre	75	* 61	32.6	78	30	4662	Animas R.
40	N/A	Leon Lk Tunl	Surface Cr	1349	* 59	1030	71	72	4520	Leon Cr.

B. TRANSMOUNTAIN DIVERSION SUMMARY--OUTFLOWS

17	N/A	Larkspur D	Arkansas R	119	78	5.61	32	28	4655	Tomichi C
26	N/A	Tarbell D	Saguache Cr	446	57	1703	91	28	4656	Cochetopa
20	N/A	Tabor D	Clear Cr	940	149	1426	84	62	774	Cebolla C
45	577	Divide C Hi	Divide Cr	1137	*47	1585	82	40	4657	Cl Fk Mud
72	N/A	City Pipeline	Colorado R	2127	*352	876	348	42	4710	Kannah Cr
72	N/A	Hollenbeck R	Colorado R	4735	*365	5300	349	42	3618	Kannah Cr
72	N/A	Redlands Can	Colorado R	537888	**352	551663	349	42	4713	Gunnison
72	N/A	Fruita Pl	Colorado R	****				73	4712	East Cr

*7 year average, ** 8 year average, ***9 year average, ****Water taken, no data available

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE									
					MINIMUM	MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
28	3590	Hot Sprgs R	Hot Springs Cr	119.80	11/01/98	603.00	06/01/99	171.10	
28	3591	McDonough #1	Los Pinos Cr	522.30	10/31/99	805.20	10/01/99	522.30	
28	3592	McDonough #2	Los Pinos Cr	41.30	04/01/99	887.00	10/31/99	283.20	
28	3593	Needle Creek	Needle Cr	535.60	08/01/99	848.60	05/01/99	595.20	
28	3594	Upper Dome R	Cochetopa Cr	736.25	07/01/99	880.20	10/31/99	880.20	
28	3595	Vouga Res	Razor Cr	685.00	10/31/99	910.00	09/01/99	685.00	
40	3412	Ault Res	Muddy Cr	0.00	11/01/98	75.00	06/01/99	75.00	
40	3414	East Beckwith	Anthracite	170.90	11/01/98	568.00	06/21/99	568.00	
40	3413	Bruce Park Res	Hubbard Cr	29.50	10/31/99	556.00	05/25/99	0.00	
40	3399	Overland Res 1	Muddy Cr	0.00	11/01/98	6135.00	06/14/99	370.00	
40	3416	Paonia Res	Muddy Cr	1705.0	11/01/98	17461.0	04/25/99	3765.00	
40	3417	Spatafora Res	Muddy Cr	0.00	11/01/98	50.00	06/01/99	0.00	
40	3418	Tomahawk Res	Muddy Cr	0.00	11/01/98	87.30	10/31/99	87.30	
40	3419	Williams Cr R	Muddy Cr	100.00	10/31/99	100.00	11/01/99	90.00	
40	3391	Bald Mt Res	Crystal Cr	5.00	09/30/99	120.00	07/30/99	0.00	
40	3394	Don Meek 1	Crystal Cr	0.00	11/01/98	45.00	06/28/99	0.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
MINIMUM					MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3395	Fruitland Res	Crystal Cr	0.00	07/31/99	6785.00	05/26/99	0.00
40	3392	Bottle Stomp R	Iron Cr	0.00	11/01/98	17.00	05/14/99	0.00
40	3553	Crawford Res	Iron Cr	4254.0	10/29/99	12788.0	05/26/99	4654.00
40	3397	Meek Res	Iron Cr	0.00	08/30/99	5.00	11/01/98	0.00
40	3401	Rockwell 1 R	Iron Cr	40.00	09/27/99	119.00	05/25/99	60.00
40	3403	Tyler Res	Iron Cr	80.00	11/01/98	169.30	06/28/99	90.00
40	3400	Poison Spr Res	Gunnison R	60.00	11/01/98	123.00	05/28/99	60.00
40	3402	Todd Res	McDonald Cr	7.00	05/19/99	39.00	11/01/98	7.50
40	3420	Bailey Res	Leroux Cr	0.00	10/19/98	423.00	01/20/99	25.00
40	3421	Brockman 1 R	Leroux Cr	0.00	11/01/98	16.00	05/11/99	0.00
40	3422	Brockman 2 R	Leroux Cr	0.00	11/01/98	41.00	05/11/99	0.00
40	3423	Carl Smith R	Leroux Cr	0.00		0.00		0.00
40	3424	Dog Fish Res	Leroux Cr	0.00	11/01/98	243.00	05/26/99	0.00
40	3425	Dowdy Res	Leroux Cr	0.00	02/19/99	264.00	05/14/99	73.00
40	3426	Ella Res	Leroux Cr	0.00	11/01/98	15.00	05/26/99	0.00
40	3427	Elk Wallows R	Leroux Cr	0.00	11/01/98	218.00	05/14/99	101.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE									
					MINIMUM		MAXIMUM		
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
40	3428	Ellington Cook	Leroux Cr	0.00	11/01/98	24.50	05/26/99	0.00	
40	3429	Fairmont Park	Leroux Cr	0.00	11/01/98	30.00	05/14/99	21.00	
40	3430	Fairmont Res	Leroux Cr	0.00	11/01/98	78.00	05/26/99	0.00	
40	3431	Fisher Res	Leroux Cr	0.00	11/01/98	10.00	05/26/99	0.00	
40	3432	Goodenough Res	Leroux Cr	78.00	11/01/98	447.00	05/26/99	255.00	
40	3433	Gray Res	Leroux Cr	45.00	11/01/98	424.00	05/14/99	74.00	
40	3435	Hanson 2 Res	Leroux Cr	0.00	11/01/98	225.00	05/26/99	0.00	
40	3437	Hunt Res	Leroux Cr	10.00	11/01/98	124.00	07/01/99	10.00	
40	3438	Lucky Find Res	Leroux Cr	0.00	11/01/98	66.00	05/26/99	0.00	
40	3439	Miller Res	Leroux Cr	0.00	11/01/98	20.40	05/26/99	0.00	
40	3440	Owens Res	Leroux Cr	0.00	11/01/98	92.00	05/14/99	0.00	
40	3441	Patterson Res	Leroux Cr	0.00	11/01/98	78.00	05/10/99	0.00	
40	3442	Patterson 2 R	Leroux Cr	151.00	11/01/98	151.00	05/10/99	151.00	
40	3443	Pine Cone Res	Leroux Cr	0.00	11/01/98	37.00	05/26/99	0.00	
40	3444	Reynolds Res	Leroux Cr	47.00	09/23/99	176.00	05/14/99	99.00	
40	3446	Skim Milk	Leroux Cr	0.00	11/01/98	90.00	05/26/99	0.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3447	Wash Tub Res	Leroux Cr	0.00	11/01/98	33.00	05/14/99	0.00
40	3448	Water Bug R	Leroux Cr	0.00	11/01/98	40.00	05/14/99	0.00
40	3449	Willow Res	Leroux Cr	38.00	11/01/98	128.00	05/14/99	65.00
40	3406	Beaver Res	Minn Cr	16600	11/01/98	1527.00	06/24/99	28.00
40	3407	Lone Cabin R	Minn Cr	0.00	11/01/98	163.00	05/27/99	0.00
40	3408	Monument Res	Minn Cr	0.00	11/01/98	405.00	06/22/99	0.00
40	3410	Roeber 2 Res	Minn Cr	0.00	11/01/98	44.00	07/01/99	0.00
40	3411	West Res	Jay Cr	0.00	11/01/98	369.00	07/09/99	0.00
40	3714	Lucas Cline R	North Fork R	0.00	11/01/98	9.00	07/01/99	0.00
40	3409	Reynolds Res	Reynolds Cr	10.00	08/15/99	100.00	06/01/99	15.00
40	3436	Holy Terror R	Terror Cr	0.00	11/01/98	146.00	05/26/99	0.00
40	3445	Rex Res	Terror Cr	0.00	11/01/98	24.00	05/26/99	0.00
40	3300	Alexander Lake	Ward Creek	157.00	11/01/98	157.00	11/01/98	157.00
40	3302	Barren Lake	Kiser Cr	268.30	11/01/98	800.00	06/14/99	344.36
40	3450	Basin #1	Dirty George C	0.00	11/01/98	184.55	06/18/99	0.00
40	3451	Basin #2	Dirty George C	0.00	11/01/98	16.55	06/01/99	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3452	Battlement 1	Dirty George C	60.01	05/01/99	87.40	06/01/99	87.40
40	3453	Battlement 2	Dirty George C	0.00	11/01/98	0.00	11/01/98	0.00
40	3341	Bonita	Surface Cr	117.25	11/01/98	277.92	06/15/99	275.30
40	3304	Bull Finch 1	Kiser Cr	0.00	11/01/98	72.42	07/12/99	0.00
40	3305	Bull Finch 2	Kiser Cr	0.00	08/12/99	39.24	06/01/99	0.00
40	3303	Boulder Lake 1	Ward Cr	0.00	11/01/98	0.00	11/01/98	0.00
40	3342	Cabin Lake	Surface Cr	0.00	11/01/98	27.05	06/01/99	0.00
40	3378	Calumet	Surface Cr	0.00	11/01/98	16.84	05/05/99	0.00
40	3366	Carbonate Cmp 3	Surface Cr	0.00	11/01/98	9.02	06/15/99	0.00
40	3306	Carbonate Cmp 6	Youngs Cr	0.00	11/01/98	112.71	06/1/998	86.38
40	3307	Carbonate Cmp 7	Youngs Cr	0.00	11/01/98	107.58	07/12/99	0.00
40	3343	Cedar Mesa	Surface Cr	12.32	11/01/98	919.00	06/15/99	212.65
40	3379	Cole 1	Surface Cr	0.00	11/01/98	73.00	06/01/99	0.00
40	3380	Cole 2	Surface Cr	0.00	11/01/98	32.57	06/16/99	0.00
40	3381	Cole 3 (Chy Ln)	Surface Cr	0.00	11/01/98	46.96	06/23/99	0.00
40	3344	Cole 4	Surface Cr	0.00	11/01/98	23.80	05/01/99	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3345	Cole 5	Surface Cr	0.00	11/01/98	116.80	06/01/99	4.56
40	3308	Daniels Sl	Kiser Cr	0.00	11/01/98	186.50	07/01/99	23.04
40	3309	Deep Slough	Ward Cr	0.00	11/01/98	498.40	05/25/99	0.00
40	3310	Deep Ward	Ward Cr	836.00	11/01/98	1592.00	10/31/99	1592.00
40	3346	Deserted Park	Surface Cr	0.00	11/01/98	38.82	06/01/99	0.00
40	3311	Donnelly Sl	Kiser Cr	0.00	10/31/98	276.95	03/30/99	0.00
40	3382	Doughty 1	Surface Cr	0.00	11/01/98	48.23	06/10/99	0.00
40	3383	Doughty 2	Surface Cr	0.00	11/01/98	17.66	06/23/99	0.00
40	3347	Dreyfus	Surface Cr	0.00	11/01/98	42.50	06/01/99	0.00
40	3312	Eggleston Lake	Kiser Cr	864.40	11/01/98	2617.43	08/02/99	2242.13
40	3348	Elk Park	Surface Cr	6.71	11/01/98	96.83	05/01/99	96.83
40	3549	Eureka 1	Youngs Cr	0.00	11/01/98	27.10	06/01/99	0.00
40	3349	Eureka 2	Youngs Cr	0.00	11/01/98	53.47	06/01/99	0.00
40	3350	Fish Lake	Surface Cr	0.00	11/01/98	76.93	06/01/99	0.00
40	3313	Forrest	Ward Cr	0.00	11/01/98	47.40	07/11/99	0.00
40	3314	Goodenough	Kiser Cr	50.72	11/01/98	150.42	07/04/99	150.42

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3455	Granby 6	Dirty George C	40.72	11/01/98	45.98	05/01/99	45.98
40	3456	Granby 7	Dirty George C	41.27	08/01/98	76.08	05/01/99	41.27
40	3457	Granby 8	Dirty George C	0.00	11/01/98	13.31	06/01/99	0.00
40	3458	Granby 9	Dirty George C	68.51	11/01/98	71.97	05/01/99	71.97
40	3454	Granby 5-11	Dirty George C	474.00	10/31/99	775.00	07/01/99	474.60
40	3459	Granby 12	Dirty George C	350.78	10/23/99	533.02	06/01/99	350.78
40	3351	Greenwood	Surface Cr	0.00	11/01/98	0.00	11/01/98	0.00
40	3384	Hale	Surface Cr	0.00	11/01/98	29.67	06/28/99	0.00
40	3315	Hotel Twin L	Ward Creek	393.20	10/27/99	548.70	05/28/99	393.20
40	3316	Howard	Kiser Cr	64.90	05/06/99	72.10	05/31/99	72.10
40	3317	Island Lake	Ward Cr	977.0	10/31/99	1426.4	05/03/97	977.00
40	3352	Kehmeier	Surface Cr	61.66	11/01/98	316.93	06/01/99	98.50
40	3319	Kiser Slough	Surface Cr	2.48	10/31/99	512.00	05/28/99	2.48
40	3318	Kennicott Sl	Kiser Cr	0.00	11/01/98	335.48	06/28/99	0.00
40	3353	Knox	Surface Cr	40.98	11/01/98	213.13	06/04/99	58.45
40	4520	Leon Lake	Leon Cr	937.1	10/01/99	1789.2	07/26/99	979.55

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
MINIMUM					MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3385	Leon Park	Surface Cr	0.00	11/01/98	133.95	07/01/99	0.00
40	3320	Lilly Pad	Youngs Cr	0.00	11/01/98	35.83	07/01/99	0.00
40	3386	Little Giant 1	Surface Cr	0.00	11/01/98	0.00	11/01/98	0.00
40	3387	Little Giant 2	Surface Cr	0.00	11/01/98	12.00	06/16/99	0.00
40	3322	Little Grouse	Youngs Cr	52.50	11/01/98	52.50	11/01/98	52.50
40	3321	Little Gem	Ward Cr	70.70	10/28/99	219.00	05/06/99	70.70
40	3388	Marcott	Surface Cr	0.00	11/01/98	427.05	05/26/99	28.51
40	3323	McKoon	Youngs Cr	147.86	11/01/98	147.86	11/01/98	147.86
40	3354	Military	Surface Cr	0.00	11/01/98	236.60	06/01/99	86.80
40	3355	Park	Surface Cr	1081.4	11/01/98	3383.40	06/01/99	1113.52
40	3324	P C & G 1	Kiser Cr	0.00	08/05/99	19.44	11/01/98	0.00
40	3325	Pedro	Youngs Cr	52.34	11/01/98	177.81	07/07/99	120.97
40	3326	Pine	Youngs Cr	0.00	11/01/98	12.80	07/01/99	0.00
40	3327	Prebble	Youngs Cr	111.65	11/01/98	193.05	06/01/99	131.20
40	3328	Rim Rock Lake	Ward Cr	107.90	11/01/98	107.90	11/01/98	107.90
40	3329	Rockland	Ward Cr	0.00	11/01/98	0.00	11/01/98	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3356	Round Lake	Surface Cr	0.00	11/01/98	15.70	06/01/99	0.00
40	3330	Ryan	Youngs Cr	0.00	07/12/99	40.27	11/01/98	66.00
40	3357	Sackett	Surface Cr	53.12	11/01/98	108.00	05/01/99	0.00
40	3331	Safety 1 & 2	Cottonwood Cr	0.00	11/01/98	15.00	05/31/99	0.00
40	3332	Scotland Peak	Ward Cr	0.00	11/01/98	81.20	07/08/99	0.00
40	3333	Sheep Lake	Ward Cr	0.00	10/01/99	154.00	01/31/98	0.00
40	3358	Stell	Surface Cr	23.00	11/01/98	65.00	06/10/99	65.00
40	3389	Trickle	Surface Cr	0.00	11/01/98	38.11	06/09/99	0.00
40	3359	Trio	Surface Cr	46.30	11/01/98	164.30	06/01/99	57.04
40	3360	Twin Lake 1	Surface Cr	0.00	11/01/98	57.31	07/01/99	32.93
40	3361	Twin Lake 2	Surface Cr	57.17	09/01/99	120.75	07/01/99	57.17
40	3334	Upper Hotel L	Ward Cr	82.44	09/01/99	160.84	06/26/99	82.44
40	3362	Vela	Surface Cr	88.55	11/01/98	436.62	05/01/99	205.94
40	3335	Ward Cr	Ward Cr	106.73	11/01/98	284.42	04/22/99	106.73
40	3363	Weir/Johnson 2	Surface Cr	208.13	11/01/98	589.34	07/22/99	366.70
40	3364	Weir Park	Surface Cr	0.00	11/01/98	40.73	06/01/99	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE									
					MINIMUM	MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
40	3336	Womack 1	Ward Cr	0.00	11/01/98	202.40	06/01/99	67.94	
40	3337	Womack 2 & 3	Cottonwood Cr	0.00	11/01/98	101.50	05/25/99	101.51	
40	3340	Womack 5	Cottonwood Cr	0.00	11/01/98	14.90	07/20/98	0.00	
40	3338	Young Cr 1 & 2	Youngs Cr	68.07	11/01/98	688.48	07/01/99	267.48	
40	3339	Youngs Cr 3	Youngs Cr	94.42	08/03/99	200.62	11/01/98	94.42	
40	3390	Y & S	Surface Cr	53.78	11/01/98	188.63	06/14/99	78.13	
40	3365	Fruitgrowers	Alfallfa Run	1408.1	10/31/99	4698.7	04/30/99	1408.11	
40	3368	Beaver Dam	Escalante Cr	0.00	11/01/98	396.50	07/28/99	272.21	
40	3370	Clark Res	Oak Cr	2.45	11/01/98	50.75	05/20/99	6.64	
40	3373	Dugger Res	Oak Cr	195.00	11/01/98	212.00	05/27/99	212.00	
40	3374	Morris 2	Oak Cr	16.33	11/01/98	16.33	11/01/98	16.33	
40	3375	Pitcarin Res	Doughspoon Cr	35.98	11/01/98	75.95	05/27/99	43.20	
40	3376	Porter 1	Oak Cr	113.85	11/01/98	214.77	05/20/99	149.53	
40	3377	Porter 4	Oak Cr	38.00	11/01/98	38.00	11/01/98	38.00	
40	2301	Arch Slough	Ward Cr	07.8	11/01/98	64.20	07/06/99	26.70	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE									
					MINIMUM		MAXIMUM		
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
42	3600	Anderson R 1	Kannah Cr	327.00	11/01/98	506.00	08/02/99	70.00	
42	3601	Anderson R 2	Kannah Cr	97.00	11/01/98	522.00	08/02/99	385.00	
42	3630	Anderson R 6	Kannah Cr	0.00	11/01/98	46.00	06/01/99	0.00	
42	3602	Bolen AJ R	Kannah Cr	0.00	11/01/98	240.00	06/01/99	0.00	
42	3603	Bolen Res	Kannah Cr	0.00	11/01/98	262.00	06/30/99	22.00	
42	3604	Carson Lake	Kannah Cr	637.00	11/01/98	637.00	06/01/99	637.00	
42	3606	Deep Cr R 2	Kannah Cr	0.00	11/01/98	328.00	06/30/99	0.00	
42	3607	Dry Cr R Sup	Kannah Cr	0.00	11/01/98	220.00	06/01/99	0.00	
42	3608	Flowing Pk R	Kannah Cr	309.00	10/31/99	778.00	06/01/99	309.00	
42	3609	Fruita Res 1	East Cr	53.15	11/01/98	102.30	05/31/99	51.44	
42	3610	Fruita Res 2	East Cr	39.98	11/01/98	154.00	05/31/99	25.00	
42	3614	Grand Mesa R 1	Kannah Cr	102.00	11/01/98	348.00	06/30/99	170.00	
42	3615	Grand Mesa R 6	Kannah Cr	0.00	11/01/98	172.00	06/15/99	0.00	
42	3616	Grand Mesa R 8	Kannah Cr	0.00	11/01/98	379.00	06/15/99	249.00	
42	3617	Grand Mesa R 9	Kannah Cr	20.00	10/01/99	153.00	06/15/99	97.00	
42	3618	Hallenbeck R 1	Kannah Cr	234.00	09/01/99	704.00	03/31/99	672.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE									
					MINIMUM	MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
42	3619	Hallenbeck R 2	Kannah Cr	0.00	12/01/98	459.00	08/01/99	128.00	
42	3620	Juniata Res	Kannah Cr	5201.0	10/31/99	6803.00	03/01/99	5201.00	
42	3623	Scales Res 1	Kannah CR	0.00	11/01/98	0.00	10/31/99	0.00	
42	3624	Scales Res 3	Kannah Cr	0.00	11/01/98	0.00	10/31/99	0.00	
42	3625	Somerville R 1	Whitewater Cr	0.00	11/01/98	865.00	06/30/99	0.00	
59	3665	Spring Creek	Taylor River	1200.0	10/04/99	1631.00	06/15/99	1200.00	
59	3666	Taylor Park	Taylor River	72173.	05/01/98	91027.	07/01/98	66882.00	
59	3684	Lake Grant	Slate River	256.00	11/01/98	256.00	12/31/99	256.00	
59	2689	Meridian Lk Pk	Slate River	80.00	09/27/99	123.00	05/27/99	100.00	
60	3507	Gurley R	Beaver Cr	3635.0	11/01/98	9972.00	06/30/99	5205.00	
60	3511	Lone Cone R	Bennet Cr	440.00	10/31/98	1840.00	05/17/99	440.00	
60	3510	Lilylands	Naturita Cr	40.00	11/01/98	494.00	06/10/99	40.00	
60	3512	Miramonte	W Naturita Cr	5680.0	11/01/98	7701.00	06/01/99	7701.00	
60	3519	Paxton Res	Horsefly Cr	643.88	11/01/98	898.37	06/01/99	643.88	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1999

AMOUNT OF STORAGE								
					MINIMUM		MAXIMUM	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
60	3509	Lake Hope Res	Lake Fork	347.00	05/30/99	2310.0	09/30/99	2310.00
60	3527	Trout Lake Res	Lake Fork	1512.0	05/18/99	3314.0	07/02/99	2142.00
60	3556	Hofmann Res #12	Horsefly Cr	48.00	11/01/98	48.00	06/01/99	48.00
61	3541	Buckeye R	W Paradox Cr	1096.0	09/09/98	2483.0	05/26/98	1148.00
62	3552	Blue Mesa	Gunnison R	535397	04/29/99	828043	07/31/99	666286.00
62	3578	Crystal	Gunnison R	4937.0	09/17/99	18578.	05/28/99	15673.00
62	3545	Morrow Pt	Gunnison R	104729	09/19/99	118663	06/12/99	110386.00
62	3548	Silverjack	Big Cimarron	2894.0	11/01/98	13407.	06/17/99	6865.00
63	3640	Craig Res 2	West Cr	103.80	11/01/98	544.00	05/31/99	313.90
63	3641	Burg Res	West Cr	0.00	11/01/98	0.00	05/31/99	0.00
63	3642	Casement Res	West Cr	120.07	11/01/98	155.00	05/31/99	33.90
63	3643	Casto Res	West Cr	126.80	11/01/98	568.30	05/31/99	0.00
63	3644	Craig Res 1	West Cr	100.20	11/01/98	373.00	05/31/99	75.00
68	3675	Ridgway	Uncompahgre R	56952.	05/26/98	83826.	07/12/98	72208.00
73	3612	Duval Res	Chiquito Dol.	0.00	11/01/98	74.38	05/31/99	0.00
73	3621	Fruita Res 3	Chiquito Dol.	26.70	11/01/98	45.90	05/31/99	9.80

WATER DIVERSION SUMMARIES

WD	STRUCTURES REPORTING			ALL OTHER STRUCTURES		Estimate # Visits Structure	Total Diversions, AF	Total Diversions to Storage, AF	TO IRRIGATION		
	With Record (1)	No Water Avail. (2)	No Water Taken (3)	No Info Avail. (4)	No Record (5)				Total Diversions, AF	Number of Acres Irrigated	Average AF Per Acre
28	160	0	21	48	534	1,326	209,799	0	206,676	23,710	8.72
40	813	2	183	327	1179	13,556	600,273	75,975	496,847	109,005	4.56
41	57	1	21	33	460	3,064	882,870	0	522,210	71,294	7.32
42	65	1	37	150	254	3,081	596,981	11,706	26,466	5,517	4.80
59	220	0	10	161	1078	2,948	551,540	45,999	345,674	31,527	11.0
60	271	4	86	110	973	1,385	164,643	16,911	118,748	30,774	3.86
61	41	2	19	9	25	1,994	18,775	8,340	9,162	3,383	2.71
62	156	1	61	81	925	4,560	4,508,661	830,051	148,390	12,512	11.9
63	66	4	34	122	152	1,584	21,691	1,305	18,902	2,590	7.30
68	158	0	30	66	665	3,840	132,118	23,435	97,003	15,808	6.14
73	28	0	21	100	98	327	5,087	93	4,797	3,048	1.57
TOT	2035	15	523	1,207	6,343	37,665	7,692,438	1,013,815	1,994,875	309,168	

Definitions: (1) Count of structures with CIU=A and NUC=blank
 (3) Count of structures with CIU=A and NUC=(A,C,D)
 (5) Count of structures with CIU=U

(2) Count of structures with CIU=A and NUC=B
 (4) Count of structures with CIU=A and NUC=(E,F)

WATER DIVERSION SUMMARIES TO VARIOUS USES

WD	TRANS MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC/ HOUSE HOLD	STOCK
28	1,703	0	0	0	0	0	0	0	1,420
40	777	0	4,805	0	587	0	11,355	896	8,366
41	0	0	0	0	0	0	0	0	387
42	557,839	271	0	0	603	0	0	48	0
59	0	0	2,119	0	0	0	152,894	0	1,954
60	0	0	581	1,747	0	154	777	282	199
61	0	0	50	0	0	0	0	33	700
62	1,426	368,760	268	0	0	0	8,359	0	0
63	0	0	0	0	0	0	0	13	1,272
68	0	0	2,332	0	0	0	0	0	3,486
73	0	0	0	0	0	0	0	0	8
TOT	561,745	369,031	10,155	1,747	1,190	154	173,385	1,272	17,792

WATER DIVERSION SUMMARIES TO VARIOUS USES, continued

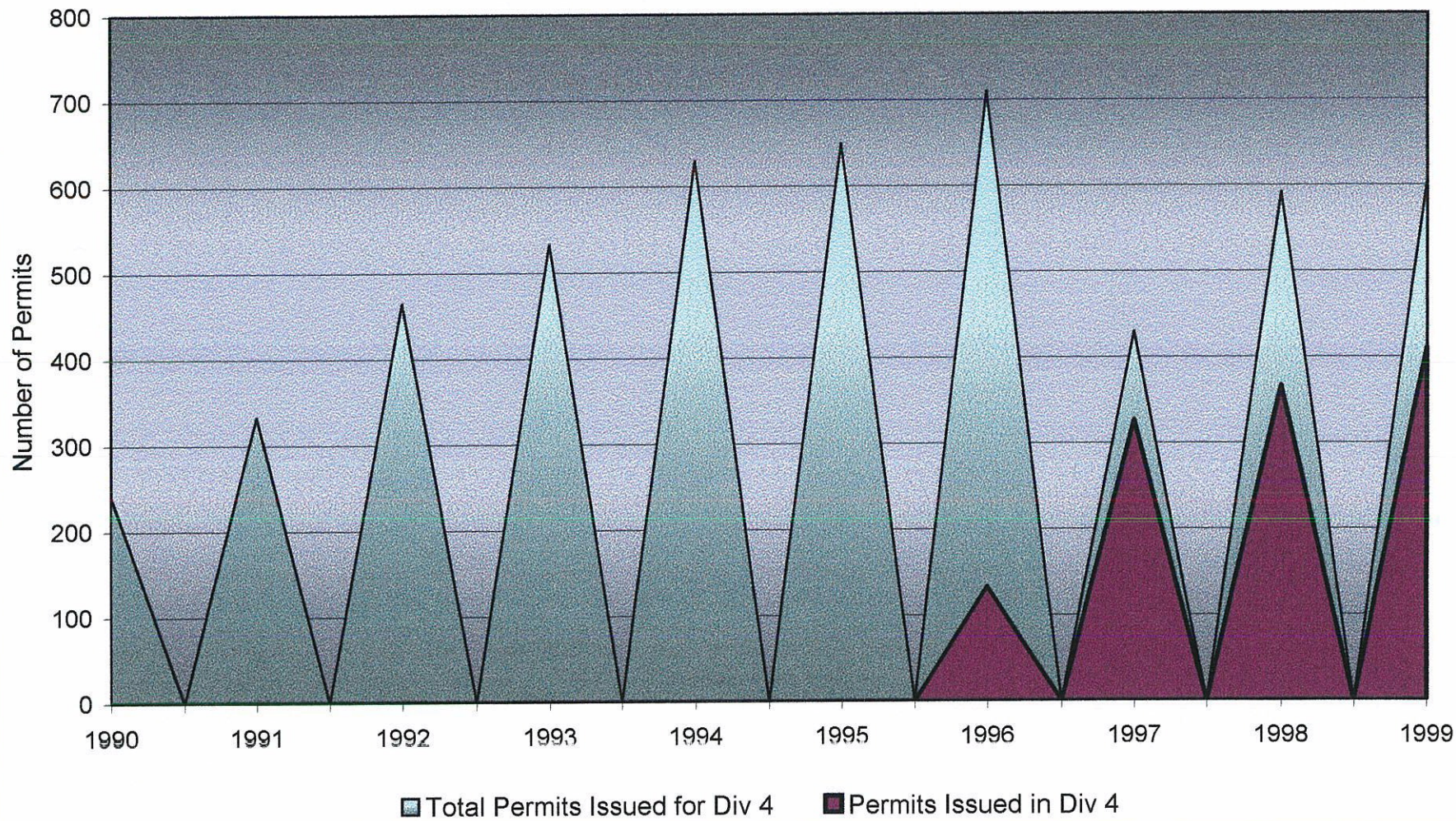
WD	AUGMEN- TATION	EVAPO- RATION	GEO- THERMAL	SNOW MAKING	MIN STREAM FLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER
28	0	0	0	0	0	0	0	0	0
40	24	743	0	0	0	0	0	0	844
41	0	0	0	0	0	0	0	0	281,445
42	0	48	0	0	0	0	0	0	0
59	0	2,724	0	176	0	0	0	0	0
60	0	0	0	0	0	25,244	0	0	0
61	0	0	0	0	0	0	0	490	0
62	0	55,791	0	0	217,193	2,878,423	0	0	0
63	0	165	0	0	0	34	0	0	0
68	85	1,655	0	0	0	0	0	0	4,122
73	0	7	0	0	0	0	0	0	182
TOT	109	61,133	0	176	217,193	2,903,701	0	490	286,593

1999
WATER COURT ACTIVITIES

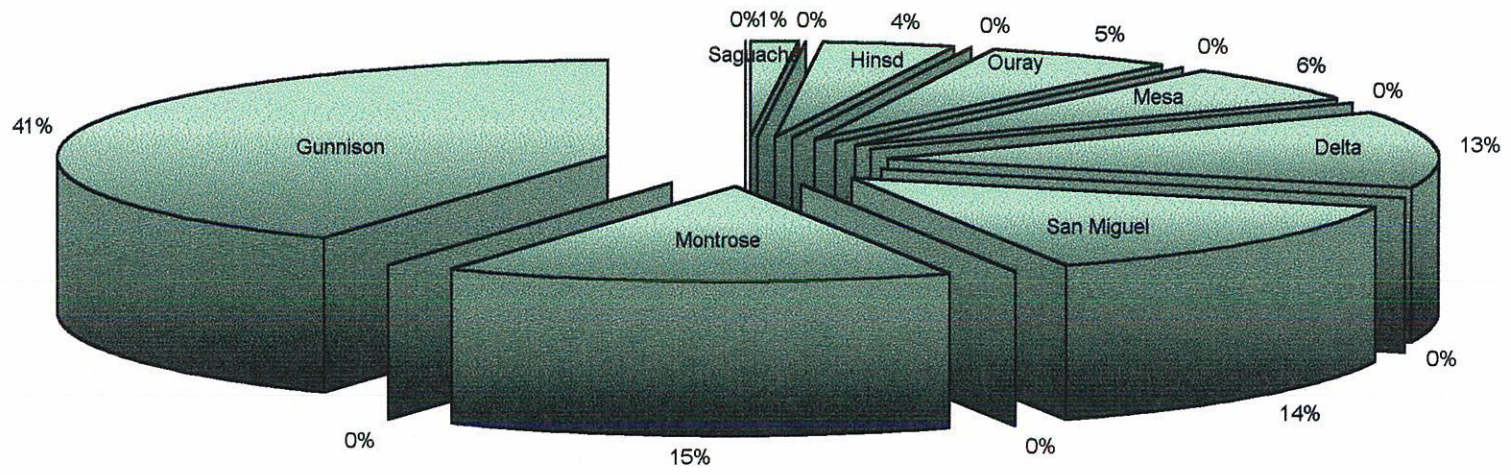
Applications for Decrees	282
Consultations with Referee	186
Decrees Issued by Water Court	211
Dismissals	1
Complaints	0

	<u>Struc.</u>	<u>Cases</u>
New Conditional Water Rights		71
Diligence on Conditional Rights		23
Cancellations of Conditional Rights		10
Conditional Rights Made Absolute		7
Underground Water Rights Adjudicated	58	29
Surface Water Rights Adjudicated	303	182
Water Storage Rights Adjudicated	107	54
Plans for Augmentation Adjudicated		22
Change of Water Rights/Location		8
Change of Water Rights/Use Adjudicated		2
Instream Flow Rights Adjudicated		<u>0</u>
Total		408

Division 4 Well Permits



Division 4 Wells by County



APPENDIX E
 DIVISION IV
1999 RIVER CALLS
Water District 28

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON/ CALLING</u>
Razor Cr.	Hirdman #1	10743.00000	4/21/99	10/31/99	Greg Peterson
Razor Cr.	Hirdman #2	10743.00000	4/21/99	10/31/99	Greg Peterson
Razor Cr.	Hirdman #3	10743.00000	4/21/99	10/31/99	Greg Peterson
Razor Cr.	Kennedy #1	10301.00000	4/21/99	10/31/99	Greg Peterson
Razor Cr.	Kennedy #2	10291.00000	4/21/99	10/31/99	Greg Peterson
Razor Cr.	Razor Creek D.	10737.00000	4/21/99	10/31/99	Greg Peterson

Water District 40

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON/ CALLING</u>
Bell Creek	North Fork Orchard	14413.13758	6/28/99	Season	Grant Farnsworth
Crystal Creek	CCIS Ditch	12350.00000	6/25/99	11/1/99	LeRoy McLaughlin
Crystal Creek	CCIS Ditch	12350.00000	7/2/99	11/1/99	LeRoy McLaughlin
Dirty George	Arthur Stewart	53489.00000	3/18/99	Season	Stanton Green
Dirty George	Blake Ditch	20501.13605	3/22/99	Season	Nate Hawkins
Dirty George	Bourn Ditch	29260.19448	3/24/99	Season	Stanton Green
Dirty George	Cedar Park D.	13566.00000	3/20/99	Season	Lynn Sanburg
Dirty George	Eagle Ditch	31924.21341	3/24/99	Season	Stanton Green
Dirty George	Granby Ditch	20501.16192	4/1/99	Season	Paul Thompson
Dirty George	Granby Pickup D	31924.15950	4/1/99	Season	Paul Thompson

Dirty George	Obert Ditch	21263.16102	3/20/99	Season	Nate Hawkins
Dirty George	Perkins Ditch	21263.19311	3/20/99	Season	Nate Hawkins

Water District 40 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE OF</u> <u>CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON/</u> <u>CALLING</u>
Dirty George	Valley Ditch	36007.00000	3/18/99	Season	Stanton Green
Dirty George	West Ditch	20501.14413	3/26/99	Season	Rolf Sanburg
Dry Creek	New Burt D.	21089.17956	7/24/99	Two days	Luce Pipher
Dry Creek	Welch Ditch	21089.12205	7/6/99	Season	Bud Burgess
Hamilton Draw	McMurry Ditch	21263.16679	4/4/99	Season	Elmer Ferganchick
Kiser Creek	Roseberry D.	20501.13301	9/18/99	Season	C. Fogg
Leroux Creek	Currant Cr.	12269.00000	3/30/99	4/16/99	Roy Wolf
Leroux Creek	Highline Ditch	14413.13606	6/29/99	Season	Robert White
Leroux Creek	Highline Ditch	13606.00000	6/24/99	Season	Robert White
Leroux Creek	Leroux Creek D	12285.00000	7/2/99	Season	Tom Alvey
Leroux Creek	Stull Ditch	21089.15502	4/9/99	5/17/99	John Burritt
Minnesota Cr	Minnesota Ditch	14413.13758	6/28/99	Season	Grant Farnsworth
Muddy Creek	Larson Ditch	29260.21350	6/30/99	Four Mos.	Peter Blake
Oak Creek	Sanburg Ditch	31924.22044	5/26/99	7/6/99	Lynn Sanburg
Oak Creek	Sanburg Ditch	31924.22044	8/31/99	9/17/99	Lynn Sanburg
Sand Creek	Obert Stub Ditch	31924.16102	3/22/99	3/22/99	Nate Hawkins
Sand Creek	Sandstone Bluff	20501.14737	4/4/99	Season	Gary Buchheim
Smith Fork	Clipper Ditch	19413.18353	6/8/99	11/1/99	Bill Linman/Needle Rk.
Smith Fork	Clipper Ditch	19413.18353	6/29/99	11/1/99	Bill Linman/Wilson D.
Smith Fork	Clipper Ditch	19413.18353	6/29/99	11/1/99	Bill Linman/Lone Rock D.
Smith Fork	Clipper Ditch	19413.12519	6/29/99	11/1/99	Bill Linman/Virginia D.
Smith Fork	Grandview Ditch	21263.16523	6/8/99	11/1/99	Mark LeValley
Surface Cr	Alfalfa Ditch	11674.00000	4/1/99	Flow change	Russ England
Surface Cr.	Bonita Ditch	13514.00000	4/7/99	Flow change	John Waggoner

Surface Cr.	Bonita Ditch	13514.00000	4/14/99	Flow change	John Waggner
Surface Cr.	Bonita Ditch	13514.00000	6/30/99	Flow change	Elmer Ferganchick
Surface Cr.	Butte Ditch	13112.00000	7/1/99	Flow change	Mel Schroeder
Surface Cr.	Cedar Mesa	20501.16329	5/15/99	Flow change	Jerry Figueroa
Surface Cr.	Cedar Mesa	20501.16329	5/18/99	Flow change	Jerry Figueroa

Water District 40 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE OF</u> <u>CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON/</u> <u>CALLING</u>
Surface Cr.	Cedar Mesa D.	20501.16329	6/14/99	Flow change	Jerry Figueroa
Surface Cr.	Cedar Mesa D.	20501.16329	6/23/99	Flow change	Jerry Figueroa
Surface Creek	Coldwater D.	20501.14750	6/26/99	Flow change	Wayne McPherson
Surface Cr.	Cook Ditch	11748.00000	4/5/99	Flow change	Town of Cedaredge
Surface Cr.	Fogg Ditch	12876.00000	4/22/99	Flow change	Mel Schroeder
Surface Cr.	Gurney Ditch	20501.15432	4/24/99	Flow change	Arlo Hanson
Surface Cr.	Gurney Ditch	20501.15432	5/8/99	Flow change	Arlo Hanson
Surface Cr.	Gurney Ditch	20501.15432	5/17/99	Flow change	Arlo Hanson
Surface Cr.	Lone Pine Ditch	20501.17790	3/18/99	Flow change	Dick Jones
Surface Cr.	Lone Pine Ditch	20501.177990	5/10/99	Flow change	Dick Jones
Surface Cr.	Lone Pine Ditch	20501.17790	5/19/99	Flow change	Dick Jones
Surface Cr.	Lone PineDitch	20501.17790	6/18/99	Flow change	Dick Jones
Surface Cr.	Orchard Ranch	12182.00000	4/8/99	Flow change	James Latta
Surface Cr.	Orchard Ranch	12182.00000	7/27/99	Flow change	Norm Kehmeier
Surface Cr.	Paradise	20501.13331	6/28/99	Flow change	Bill Kissner
Surface Cr.	Settle Ditch	12503.00000	4/13/99	Flow change	Bud Hawkins
Surface Cr.	Settle Ditch	12503.00000	7/8/99	Flow change	Bud Hawkins
Surface Cr.	Settle Ditch	12503.00000	7/13/99	Flow change	Bud Hawkins
Surface Cr.	Shepard Ditch	12717.00000	7/4/99	Flow change	Bud Hawkins

Surface Cr.	Shepard Ditch	12717.00000	7/9/99	Flow change	Bud Hawkins
Surface Cr.	Trickle Ditch	20501.13574	5/11/99	Flow change	Mel Smith
Surface Cr.	Trickle Ditch	20501.13574	5/13/99	Flow change	Mel Smith
Surface Cr.	Trickle Ditch	20501.13574	6/27/99	Flow change	Mel Smith
Surface Cr.	Weir & Johnson	20501.13223	5/12/99	Flow change	Jim Vela
Surface Cr.	Zanola Pelezini	20501.15432	5/9/99	Flow change	Bud Hawkins
Surface Cr.	Zonola Pelezini	20501.15432	6/25/99	Flow change	Bud Hawkins
Terror Creek	Terror Ditch	12370.00000	7/3/99	11/1/99	Bill Linman

Water District 40 cont'd.

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON/ CALLING</u>
Ward Creek	Carbon Ditch	13685.00000	4/2/99	Season	Eldon Rusch
Ward Creek	Granby Ditch	20501.16192	4/1/99	Season	Paul Thompson
Ward Creek	Gabriel Ditch	49308.49175	4/4/99	Season	Beryl Himes
Ward Creek	Parker Ditch	29260.18361	4/4/99	Season	Norman Wagner
Ward Creek	Sandstone Bluff	13437.00000	4/4/99	Season	Gary Buchheim
Ward Creek	Sessions Ditch	13269.00000	4/1/99	Season	Curtis Adams
Ward Creek	Stillwagon Ditch	29260.21701	4/4/99	Season	Gary Buchheim
Ward Creek	Sunrise Ditch	20501.18185	4/4/99	Season	Jack Arney
Ward Creek	Todd Ditch	20501.15066	4/2/99	Season	Mary Parker
Williams Cr	Williams #2 D.	20501.12540	4/2/99	Season	Linda Frick
Youngs Creek	Broncho Ditch	13254.00000	10/2/99	Season	D. Frost
Youngs Creek	Cherokee Ditch	20501.16893	6/4/99	Season	T. Betz

Water District 41

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON PLACING CALL</u>
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Horsefly	Albush Ditch	24221.22524	4/14/99	Season	Mardell Sanders
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Water District 42

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON PLACING CALL</u>
East Creek	Lurvey D #1	22848.21258	4/09/99	Season	Ron Tipping
Kannah Cr.	Bales,Wm,Morrison	12724.00000	4/19/99	4/21/99	John Carelli

Water District 42

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON PLACING CALL</u>
Kannah Cr.	Bales,Wm,Morrison	12724.00000	4/23/99	4/21/99	John Carelli
Kannah Cr.	Bales,Wm,Morrison	13902.00000	5/10/99	5/12/99	John Carelli
Kannah Cr.	Bales,Wm,Morrison	13902.00000	6/29/99	7/1/99	John Carelli
Kannah Cr.	Bales,Wm,Morrison	13902.00000	7/21/99	7/22/99	John Carelli
Kannah Cr.	Bales,Wm,Morrison	13902.00000	8/25/99	8/26/99	John Carelli
Kannah Cr.	Bowen Private	13121.00000	4/28/99	5/1/99	Steve Bonnell
Kannah Cr.	Bowen Private	13121.00000	5/12/99	5/17/99	Steve Bonnell
Kannah Cr.	Bowen Private	13121.00000	7/2/99	7/6/99	Steve Bonnell
Kannah Cr.	Bowen Private	13121.00000	9/8/99	9/13/99	Steve Bonnell
Kannah Cr.	Brown & Campion	12724.00000	4/12/99	4/13/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	4/13/99	4/19/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	12724.00000	4/19/99	4/21/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	4/21/99	4/23/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	12724.00000	4/23/99	4/27/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	4/27/99	4/28/99	Bill Blair Jr.

Kannah Cr.	Brown & Campion	13102.00000	7/6/99	7/15/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	7/23/99	8/12/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	8/27/99	8/31/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	9/13/99	9/28/99	Bill Blair Jr.
Kannah Cr.	Brown & Campion	13102.00000	10/5/99	10/21/99	Bill Blair Jr.
Kannah Cr.	Highline Ditch	13904.0000	5/17/99	5/20/99	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	12724.00000	4/8/99	4/12/99	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	12724.00000	4/19/99	4/21/99	Ed Gardner
Kannah Cr.	Juniata D. 1st Enl	12724.00000	4/23/99	4/27/99	Ed Gardner
Kannah Cr.	Juniata D. 1 st Enl	32750.00000	6/14/99	6/15/99	Danny Vanover
Kannah Cr.	Kannah Cr.Ext.D.	12724.00000	4/19/99	4/21/99	Ed Gardner
Kannah Cr.	Kannah Cr.Ext.D.	12724.00000	4/23/99	4/27/99	Ed Gardner

Water District 42

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Kannah Cr.	K.C. Highline	13904.00000	5/1/99	5/10/99	Randy Cucuiat
Kannah Cr.	K.C. Highline	13904.00000	7/16/99	7/21/99	Randy Cucuiat
Kannah Cr.	K.C. Highline	13904.00000	8/12/99	8/25/99	Danny Vanover
Kannah Cr.	K.C. Highline	22848.221251	6/16/99	6/23/99	Danny Vanover
Kannah Cr.	K.C. Highline	13904.00000	8/31/99	9/8/99	Danny Vanover
Kannah Cr.	Raber Coal Cr.	31791.00000	6/15/99	6/15/99	Nina Brouse
Kannah Cr.	Smith Ditch	12724.00000	4/23/99	4/27/99	Bud Bradbury
Kannah Cr.	Smith Ditch	13234.00000	7/2/99	7/2/99	Bud Bradbury
Kannah Cr.	Smith Ditch	13233.00000	7/15/99	7/16/99	Bud Bradbury/Dan Brown
Kannah Cr.	Smith Ditch	13007.00000	9/28/99	10/5/99	Bud Bradbury

Kannah Cr.	Washburn Downing	13900.00000	7/1/99	7/2/99	John Whiting
Kannah Cr.	Washburn Downing	13900.00000	8/26/99	8/27/99	Steve Whiting

Water District 59

No calls

Water District 60

No Calls

Water District 61

No Calls

Water District 62

No calls

Water District 63

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
West Creek	Bartholomew/Hatch	30079.18294	4/9/99	Season	Ron Tipping

Water District 68

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Horsefly	Albush	24221.22524	4/19/99	Two days	M. Sanders

Horsefly Albush 24221.22524 5/21/99 Season M. Sanders

Water District 73

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Coates Cr.	Mooreland Ditch	22848.22088	5/28/99	Season	Jay Vanloan
Chiquita Dol.	Upper Saxbury D.	22848.17806	6/7/99	Season	Mtn. Island Ranch

OFFICE ADMINISTRATION AND WORKLOAD MEASURES

ACTIVITY SUMMARY

WATER DIVISION NO. IV

1999 CALENDAR YEAR

ACTIVITY SUMMARY

<u>ACTIVITY</u>	<u>TOTALS</u>
Professional and Technical Staff	3
Clerical Staff	1
Water Commissioners FTE (Full/Part-Time)	24
1999 Decreed Surface Rights	303
Surface Rights Administered (visits)	30,782
Storage Rights Administered (visits)	7,738
1999 Decreed Wells	58
1999 Decreed Plans of Augmentation	22
Consultations with Referee	186
Water Court Appearances	32
Meetings with Water Users	132
Contacts to Give Public Assistance	*18,893
*Includes Water Commissioner Contacts	

TABLE OF ORGANIZATION - PERSONNEL
IRRIGATION DIVISION NO. IV

Division Engineer - Wayne I. Schieldt
Assistant Division Engineer - Frank Kugel
Program Assistant I - Jean Pierce
Well Commissioner - LuAnn Beasley
Dam Safety Engineer - James Norfleet
Hydrographer - Jerry Thrush

Water District 28

WATER COMMISSIONER
Bonnie Irby

Water District 40

PR. WATER COMMISSIONER
Jimmie Boyd

Water District 41

SR. WATER COMMISSIONER
C. Crandall Howard

PR. WATER COMMISSIONER
Robert Starr

Water District 42

WATER COMMISSIONER
Lynne Bixler

WATER COMMISSIONER
Richard Belden

Cliff Davis
Merritt Denison
Gerald Figueroa
James Holiman
Henry LeValley
Kenneth Mahannah
Jack McHugh
Dale Parker
Gregg Scott
Stephen Tuck

Water District 59

WATER COMMISSIONER
Richard Rozman

Water District 60

SR. WATER COMMISSIONER
Lyman Campbell
WATER COMMISSIONER
Aaron Todd

Water District 61

WATER COMMISSIONER
Clinton Oliver

Water District 62

SR. WATER COMMISSIONER
C. Crandall Howard
WATER COMMISSIONER
Carl Hurst

Water District 63

WATER COMMISSIONER
Richard Belden

Water District 68

WATER COMMISSIONER
Eric Weig

Water District 73

WATER COMMISSIONER
Richard Belden