

State of Colorado
Division of Water Resources

Division 2

2002 Annual Report



Hicklin Ditch
Water District 15
May 1859 Water Right
(Oldest Water Right in Division 2)

**DIVISION ENGINEER'S
ANNUAL REPORT**

Water Division 2

2002

March 14, 2003

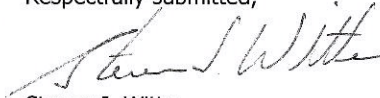
Mr. Hal Simpson
State Engineer
Division of Water Resources
1313 Sherman Street, Room 818
Denver, CO 80203

Dear Hal,

I submit to you the Division 2 Annual Report summarizing Division 2's activities for Water Year 2002.

Also, I express my genuine appreciation to the Division 2 employees for their work and efforts this past year and to you and your staff for providing the support that has allowed us to effectively accomplish our responsibilities and duties.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Steven J. Witte".

Steven J. Witte
Division Engineer, Division 2

TABLE OF CONTENTS

Page

I. ACTIVITIES & ACCOMPLISHMENTS DURING 2002 WATER YEAR

A. Surface Water Administration	1
1. Drought Administration	1
2. Ad hoc Diversion Record Committee.....	4
3. Beaver Dams.....	5
4. Arkansas River Water Banking Pilot Project.....	7
B. Ground Water Administration.....	8
1. Well Permits	8
2. Administration of Ground Water Use and Measurement Rules	8
C. Arkansas River Compact.....	14
1. Arkansas River Compact Administration	14
2. Developments in Kansas vs. Colorado.....	15
D. Legal and Litigation	16
1. Water Court Activity	16
2. Empire Lodge	17
3. Recreational In-Channel Diversion case and hearings	18
E. Tabulation and Abandonment.....	19
F. Safety of Dams	19
G. Hydrography	20
H. Information Technology Highlights for 2002.....	22

I. Organization/Personnel/Workload Issues	23
1. Budgetary Restriction and the Effect on Operations.....	23
2. Personnel	25
Organization Chart.....	26
3. Training.....	27
4. Pay for Performance.....	27
5. Innovative Administration Processes.....	27
6. Agency Meetings.....	29
7. Employee Recognition	29
8. Employee Council.....	29
J. Involvement in the Water Community.....	30

II. Objectives for 2003

A. Diversion Record Quality and Hydrobase System Conversion	32
B. Strive to Protect Personnel, Positions, and Improve Working Conditions.....	32
C. Improve Relations with Supervision of Field Personnel	32
D. Resolve Chronic Surface Water Administration Issues	33
E. Effectively Administer and Enforce Ground Water Use Rules in Drought.....	33
G. Content Manager.....	33
H. GIS Projects	33
I. Assist Development of Drought Contingency Policies and Water Management Proposals	34

III. Appendixes

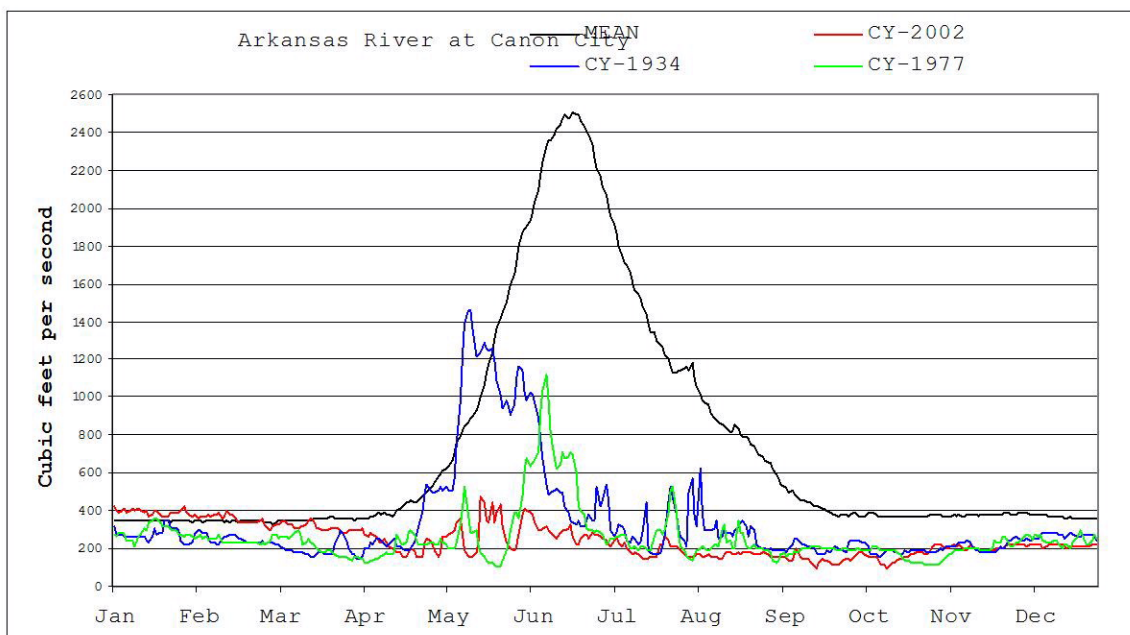
Appendix A	Transmountain Diversion Summary	35
Appendix B	Water Diversion Summary	36
Appendix C	Arkansas River Calls.....	37
Appendix D	Water Court Activity.....	46

I. ACTIVITIES and ACCOMPLISHMENTS--2002 WATER YEAR

A. Surface Water Administration

1. Drought Administration

Colorado's drought made its impact felt in the Arkansas River basin in 2002. Some of the more obvious effects were the dry streambeds and the low reservoir levels. Less obvious, however, was the increased water administration efforts required to manage our priority system, interstate water compacts and our conjunctive water and groundwater use.



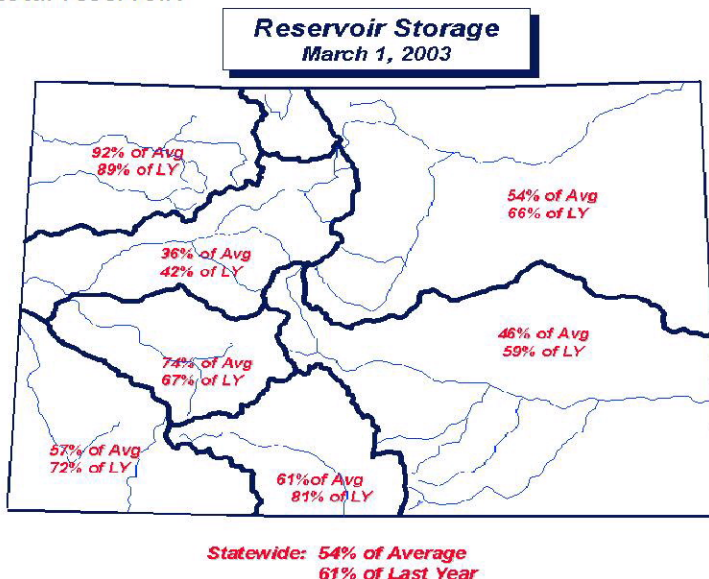
The chart above dramatically illustrates the severity of the drought of 2002 in comparison to other notable years of drought such as 1934 and 1977, based on the record of daily stream flow of the Arkansas River as measured at Canon City Colorado.

Some of the Arkansas Valley's largest irrigation ditches were either completely dry or received only a portion of their direct flow priority for most of the season. For example, the Amity and Ft. Lyon ditches were dry since early July and such a fine balance was created between upstream junior and downstream senior ditches along the main stem Arkansas that timing for diversion of hourly stream flow fluctuations and the distribution of short duration storm peaks became critical. As a result, increased administration was needed to manage supplemental reservoir releases, travel times, transit losses, and ditch maintenance activities.

Even sophisticated municipal water supply providers were surprised by the severity of the drought. In the spring, Pueblo Cheiftain headlines proudly boasted, "Dry Weather No Threat to Pueblo Water", but when the Pueblo Board of Water Works' 1874 direct flow water right was later curtailed, Pueblo and other municipalities moved to water restrictions prompting the cancellation of surplus supply leases with augmentation groups. Drought conditions caused the loss of exchange opportunities for City of Pueblo and Colorado Springs utilities as well as the Aurora exchange into Pueblo Reservoir. Pueblo Board of Water Works stepped up installation of a large delivery pipeline from Pueblo Reservoir to their water treatment facility to allow them to better manage short water supplies. Colorado Springs began engineering work for a new pipeline to allow pumped water to be delivered from Pueblo Reservoir to the Colorado Springs area to address physical limitations with the existing Fountain Valley Authority pipeline.

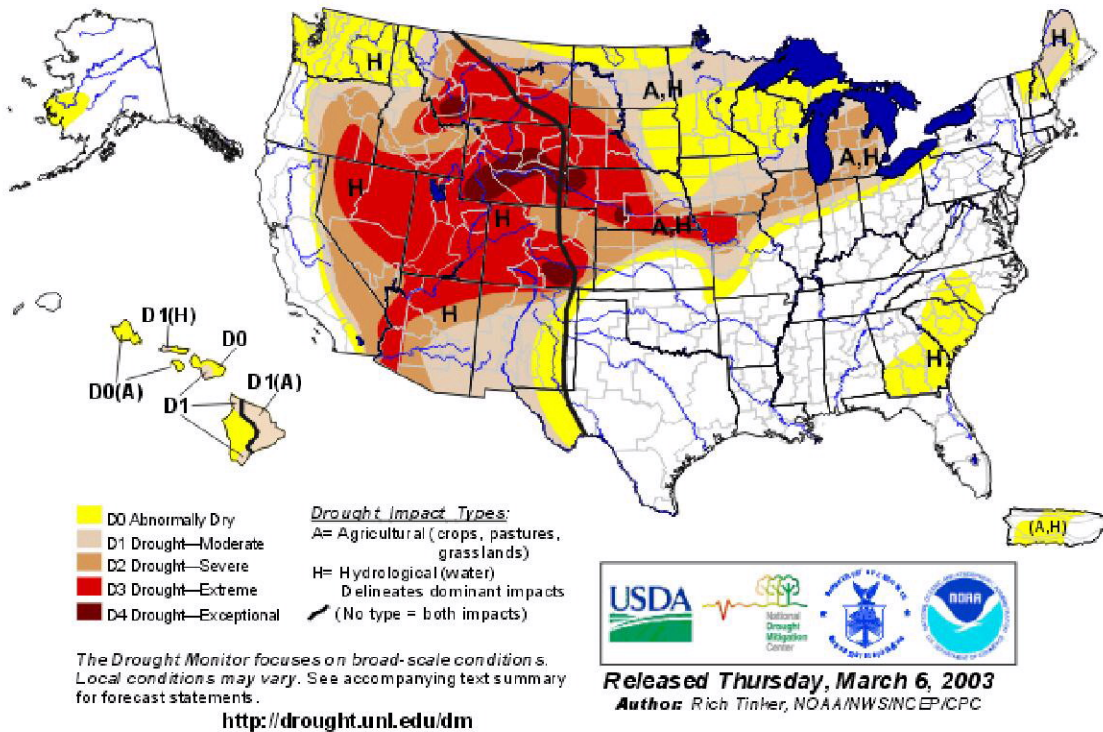
A number of small municipalities experienced extreme problems with municipal water supplies. Beulah lost almost all ability to divert their normal supply and resorted to hauling much of their emergency water supply from Pueblo. Walsenburg and Colorado City were also examples of small municipalities with normally secure water supplies based on very senior water rights that suffered through a difficult year with unprecedented watering restrictions in order to manage a very limited supply due to historically low or non-existent stream flows.

Reservoirs in the basin experienced significant drops in storage amounts. Pueblo Reservoir fell approximately 25 feet (68,500 acre feet) between winter water storage seasons and John Martin Reservoir dropped over 19 feet (68,500 acre feet). Trinidad Reservoir's largest water holder is the permanent fishery pool, which accounts for approximately 96% of the total reservoir.



Although the 2002-2003 began with great promise, below average precipitation throughout Colorado, but particularly in the Southern half of Colorado has caused the threat of continued exceptional drought to persist.

U.S. Drought Monitor March 4, 2003 Valid 7 a.m. EST



As the effects of the drought wore on throughout the summer of 2002 and into 2003, the importance of more exacting administration became increasingly apparent as competing water users demanded that plans for augmentation be demonstrated to be operated in strict adherence to the requirements of court decrees and to be effective in preventing injury to senior water right holders. Particular efforts were made to improve oversight of administratively approved replacement plans and decreed plans for augmentation in Water District 13.

Also, some municipal water suppliers, such as Aurora attempted to secure supplemental sources of water not yet decreed for changed usage by invoking emergency administrative remedies as a contingency against continued drought in 2003. New concepts such as interruptible supplies are being explored. Colorado's traditional doctrine prior appropriation is being tested once again as to whether it is flexible enough to meet the needs of her citizens under such circumstances.

2. Ad hoc Diversion Record Committee

Faced with the requirement to deliver completed records to the Records Section in Denver at an earlier date and with increased demand from water users for earlier access to diversion records from the previous irrigation season, Division 2 set out to investigate opportunities to improve development of diversion records to allow deadlines to be met and to facilitate improvement to record creation.

A committee consisting of five senior water commissioners and various Division 2 Office staff was formed. The goal of the committee was to recommend improvements and changes in the diversion records process that would improve quality while meeting timely completion dates. The committee met a number of times in March and April 2002.

The Committee discussed methods for collecting diversion record data and opportunities for standardizing data collection methods. The importance of diversion records in legal proceedings was also discussed.

The recommendations made by the committee included the following:

- Present various methods for data collection used by individual water commissioners at the Spring Meeting, but continue to allow flexibility in the method of data collection rather than standardizing techniques. Through the committee an offer was made to support entry of diversion records into the database system from the Division Office to encourage records to be maintained quarterly, but this offer was declined by all Division 2 water commissioners during 2002.
- Maintain a set deadline of January 15th for records to be completed by each water commissioner to allow reasonable time for feedback and quality control work to be accomplished prior to the April 1st deadline for records submission to Denver.
- Provide Office support to assist with mailings associated with acquiring timely data from entities producing user supplied data or from water user accounting programs. Provide better enforcement support for instances where records were not delivered to water commissioners in a timely manner or where measuring devices or accounting procedures had not been properly put in place by water users.
- Assist with computer support and technical help to water commissioners by working with entities capable of providing diversion data and augmentation data electronically to get records generated in a format easily importable to the diversion record database structure to eliminate manual entry. Work to encourage water users to provide data loggers in lieu of charts wherever possible to reduce data collection and data processing difficulties.

- Develop a more streamlined system for water commissioners and the Augmentation Coordinator to work together with engineers reviewing court decrees, augmentation plans and temporary replacement plans to ensure that proper measuring devices, accounting schemes and water user contact personnel are addressed during the development of a plan and to set out the implementation procedures to ensure that a complete diversion record can be maintained from the outset of the plan or change in water right.
- Develop a consistent approach to maintaining backup for diversion records that provides a means for a water commissioner to know what supporting information to keep, for how long, and where the information that should be retained permanently should be archived.

Although relatively few of the recommendations above have been employed to any great extent to date, the Division will continue to pursue opportunities to improve record production in upcoming years utilizing the recommendations of the committee as a basis for improvement.

3. Beaver Dams

In the Spring of 2002, motivated by the prevailing drought concerns, water right owners on North and South Colony Creeks requested relief from the Division Engineer, because they believed that beaver dams located on land owned by upstream landowners were obstructing stream flow and impeding water delivery to them.

Upon inspection last summer many beaver dams and ponds were observed. The downstream water right owners claimed that the landowners have benefited from the action of the beavers by spreading water upon the lands that were historically served by now apparently abandoned ditches. This claim does not appear to have any merit. Also noted was the effect these dams had in rerouting streamflows between both the North and South Branches of Colony Creek where previously there was no interchange of these waters. As water rights exist on, and are decreed to, the specific branches of these streams it was this rerouting of streamflows, which was seen as the main injurious effect of the beavers and the intent was to correct this situation. The storage of water in beaver ponds was of a lesser concern.

The Division of Water Resources made a substantial effort, to develop a cooperative solution to the problem through joint efforts and sharing of expenses among both upstream landowners and downstream water right owners. Ultimately these efforts were not successful.

As a result, on July 20, the Division Engineer sent orders to two upstream landowners to remove the beaver dams that impede flows on North and South Colony Creeks and to maintain these stream segments in a condition free of such obstructions in the future. The authority to issue

such orders is found in § 37-92-502(7) which pertains to orders "so that the streams of the state may be kept clear of unnecessary dams or other obstructions that may restrict or impede the flow of water to the water users of the state."

Both landowners complied with these orders by removing the dams from their property. However, on July 26, one party responded that although he would remove the dams, he believed this to be a taking of private property without just compensation.

On August 20, that landowner sent State Engineer, Hal Simpson a request to appeal the Division Engineer's order. He claims that § 37-92-502(7) does not authorize the DEO to force him to incur personal expense and to damage his property. Further, the ongoing nature of the order places a continued burden on him in the future.

Subsequently, the same water right owners notified Division 2 that the dams had been re-built and requested that the dams be removed once again.

Both landowners have submitted notices of injury and damage pursuant to § 24-10-109 (the Governmental Immunity Act) and claiming that the July 20 order is illegal and unconstitutional, because the order resulted in taking without compensation. There were also claims of damages in the total amount of \$2,754,125, which includes damage to wildlife and for removal of the dams, trespass and diminished property value.

The Notice was forwarded to the Tort Litigation Unit of the Attorney General's Office and to Risk Management to assess the claim. Either ninety days after the filing of the notice or once the claim is denied, whichever is sooner, the claimants may proceed with filing an action in court. After the action is commenced, the Tort Litigation section would defend against the claim, with input from the Water Rights Unit.

The Division of Wildlife is concerned about the potential impacts to beavers that may result from these orders, and believes that the continued issuance of such orders could result in a conflict between the State Engineer's Office and the Division of Wildlife based on their differing missions. Potential ways of addressing these situations that have been discussed include notification of Division of Wildlife staff by the Division Engineer prior to issuing such orders to enable work with landowners to both alleviate the problem and protect the beavers and, if possible, fishery habitat.

Obviously the authority and duty conferred by § 37-92-502(7) is one that is taken very seriously and is worthy of being defended. But, it is also very contentious and must be exercised with a great deal of sensitivity to a variety of concerns.

4. Arkansas River Water Banking Pilot Program

As of January 21st, 2003 the first legislatively approved Water Bank in Colorado became a reality pursuant to a law signed by Governor Owens on June 6, 2001. Under HB-1354 co-sponsored by Representative Dianne Hoppe, R-Sterling, and Senator Lewis Entz, R-Hooper, the Arkansas River basin has been designated to demonstrate the feasibility of water banking through a four year pilot program.

Water banking is a concept whereby water right owners commit to forego use of water to which they are entitled for a period of time, in effect placing it on deposit and potentially available for "loan" to a borrower. For the concept to work, borrowers must be willing to pay enough to make it worthwhile to the depositor and to cover the expenses of the transaction....and, as is always the case when Colorado water rights are involved, there must not be any injury to the interests of other water right owners. The thing that is revolutionary is that the legislation provides that the temporary water right changes that occur in connection with a water bank transaction do not have to be adjudicated. The rules promulgated by the State Engineer, which define how the proposal can operate while protecting the interests of others, were formulated only after receiving public input.

One key reason that the Arkansas Basin was selected for the pilot program is that effective well use regulations have been established there. Without such controls it is likely that water right owners might simply expand the use of their ground water rights while leasing their storage rights to others. Perhaps the chief reason, however, is to explore options to stem the tide of trans-basin exports that have resulted in the reduction of irrigated agriculture in the region. The authorizing legislation stipulates that "...water available in the bank (is) to be made available for use within the Basin of the Arkansas River prior to making such water available for use in other river basins in Colorado."

The Southeastern Colorado Water Activity Enterprise has accepted the State Engineer's delegation of authority to operate the Colorado Water Bank. The primary presence of the Colorado Water Bank is through a website established by the Enterprise: www.coloradowaterbank.org. This site contains descriptive information, resources that can be downloaded, it allows monitoring of the market as well as on-line bidding by qualified participants.

Near the end of the pilot program in 2005 the State Engineer is required to report on the program's successes as well as those factors that served as impediments to successful implementation. The authorizing legislation for the Arkansas River Pilot Water Banking Program will be repealed effective July 1, 2007, unless it is extended by future legislation.

B. Ground Water Administration

1. Well Permits

The drought had a major impact on groundwater levels and on the demand for replacement permits. The number of replacement permits in 2002 was 88% greater than the average for the prior 5 years. The number of replacement permits by year is as follows:

1997	154
1998	179
1999	204
2000	185
2001	242
2002	364

2. Administration of Ground Water Use and Measurement Rules

Wells in the Arkansas River Basin are subject to the Amended Measurement Rules and Amended Use Rules. Wells subject to the Use Rules may only divert water pursuant to a qualifying plan to replace stream depletions. Most irrigation wells and many wells for other uses participate in plans developed in accordance with Rule 14 of those Use Rules. Those plans are approved for a period of from April 1 to March 31 of the succeeding year.

In December 2001, Division 2 began meeting with ground water associations to discuss strategies to deal with a drought year. Snowpack as of December 31, 2001 was 56 % of average, and reservoir storage was only 70 to 78 % of normal for upstream reservoirs. Winter drought planning led to public meetings on March 1 and 2 in La Junta and Pueblo to inform water users of the situation. The meetings were a cooperative effort of AGUA, CWPDA, and Division 2.

As March 2002 approached, dry conditions continued, soil moisture was extremely low, and many water users were looking to wells to supply early season water needs. Water users sought to pump water that had not used during the summer of 2001 under the 2001 replacement plans. Division 2 became concerned about the integrity of the replacement plans if a large amount of pumping occurred in March. The anticipated large amount of pumping in March had not been modeled in the replacement plan development, and it was not clear that adequate replacement water would be available at the appropriate time. Fortunately, this ultimately was not as large of a problem as anticipated. However, because of this concern, seasonal limits were set for the 2002 plans. Those limits in the 2002 plans restricted use in the April-October period and

November-March to the amount of pumping which had been estimated for those periods for each well or farm unit.

An additional concern arose among water users who used the Power Conversion Coefficient method of water measurement. While the 2001 plan year ran from April 1, 2001 through March 31, 2002, the effective year for those whose pumping was calculated from monthly readings of electric meters made by their power company ran from their March meter reading in 2001 till their March meter reading in 2002. For this reason, many well users did not have the entirety of March to pump against their remaining 2001 pumping allocation.

Fortunately, a considerable amount of assignable return flow from Fry-Ark deliveries remained in the groundwater and would return to the system during the 2002 plan year to offset depletions. In addition, some other sources of supply such as reservoir water also remained available. While the Ground Water Associations found it necessary to limit allocations to wells to about 70% of the average purchase over prior years, the actual amount pumped during the summer of 2002 was nearly equal to the average amount pumped for the period 1998 – 2002, due to a higher percentage of utilization.

Unfortunately, the allowable pumping for wells in 2002 was insufficient to compensate for the record low growing season precipitation and the record low yield of surface water rights. Because of the record drought, many irrigators suffered losses due to inability to meet water demands of the crops that had been planted.

Rule 14 Plans:

Fifteen Rule 14 plans were submitted and approved for Plan Year 2002. The number of plans was two less than in 2001. Vineland Well Users merged into CWPDA and Walsenburg Sand & Gravel converted to a SWSP.

Characteristics of Major Plans:

AGUA

- Replacement Water Sources: Approximately 8,600 AF of replacement water was originally proposed for the AGUA Plan. Drought conditions forced Pueblo Board of Water Works to cancel a contract for trans-mountain water. The final available replacement water was 6,700 AF, approximately 80% of the original proposal. The following table categorizes the various sources of water in acre-feet.

Stored Water:	Initial =	3,795.96	Final =	383.61
Return Flows:.....	Initial =	4,927.45	Final =	6,422.01
Ditch Shares:	Initial =	858.52	Final =	160.80
- Plan Performance:

Overall, the AGUA plan performed well given the drastic decrease in available replacement water. AGUA vigorously pursued other sources to

make up for the loss of the PBWW contract, and was successful in acquiring re-usable municipal return flows, which became available because they could not be exchanged upstream due to insufficient exchange capacity in the drought stricken river through Pueblo. A number of water transfers were needed to avoid "tagging" well users who use their Non-Exempt wells for domestic purposes and to avoid cutting-off water in the latter part of the growing season. One significant problem remained in the overall operation of AGUA's Plan: The late reporting of monthly water use data. Steps are being taken to improve performance for this forthcoming year.

CWPDA

- Replacement Water Sources: Approximately 18,600 AF of replacement water was originally proposed for the CWPDA Plan. CWPDA also lost some of their planned PBWW water due to the drought but the impact on that Plan was not as drastic as it was on the AGUA Plan because CWPDA had a greater variety of sources. CWPDA experienced a 3% decrease overall, whereas AGUA had a 20% decrease. Sources of replacement water for the CWPDA plan, in acre-feet were:
 Stored Water:Initial =6,296.88 Final =..... 5,863.60
 Return Flows:.....Initial =11,434.34 Final =..... 11,383.70
 Ditch Shares:Initial = 888.78 Final =..... 1,052.92
- Plan Performance:
 The majority of the CWPDA members were able to stay within their limits throughout the summer season. However, an excessive number of Water Transfers was needed to accomplish this. To date, 15 separate Water Transfer requests have been received, with from two to 34 wells in each request.
 Additionally, a major Amendment was submitted in late July that essentially changed the pumping for every well in the Plan. A previous problem with the use of different databases has been partially resolved but not totally. The Ground Water Information Team will continue to work with CWPDA, as with all Well User Associations, to assure consistency of data.

LAWMA

- Replacement Water Sources: Approximately 21,300 AF of replacement water was originally proposed for the LAWMA Plan. LAWMA was also significantly impacted by the drought; final distributions of replacement waters are not available at this time.
 Stored Water:Initial =11,132.48
 Return Flows:.....Initial =1,670.93
 Ditch Shares:Initial =8,502.58
- Plan Performance:
 The majority of the LAWMA members stayed within their seasonal limits for this Plan Year. Several Water Transfers were necessary to do so, however, and the Consultant was noticeably slow in submitting the requests for those Water Transfers. This cued some additional work on the part of the Ground Water Group in trying to remember who was over-pumped without additional water ordered versus those who were over-pumped and had arranged for additional water but the request had not yet been received.

Difficulties:

By far, the greatest difficulty encountered this year was the drought. The extremely dry conditions led to a much higher than usual work load in reviewing and processing Water Transfers and Amendments; in assisting the Associations as well as individuals in locating and evaluating alternative replacement sources; and in explaining our normal processes to people not normally involved in acquiring well permits, developing augmentation plans, etc.

Also as a result of the drought, there was a real concern for several weeks that the AGUA Plan would default and not be able to cover its depletions. This concern led to numerous analyses of "what if" scenarios to try to avoid a default situation.

- An indirect difficulty resulting from drought conditions was the implementation of "seasonal limits" to assure that pumping took place only to the extent that replacement water was available, both in time and place.
 - In past years, well users pumped to the full amount ordered for the entire year. Because those past years were "water rich," there was no concern about having sufficient water in the Arkansas (or its tributaries) to replace the depletions, even if pumping exceeded the estimated amounts or took place outside of the anticipated schedule.
 - With drought conditions, we no longer had that luxury and many of the Associations and their members had difficulty in revising their watering practices to meet the new restrictions.
- Some of the operational difficulties are addressed above. Many of the problems were due to the increased workload resulting from the drought and from efforts to avoid default and to plan for the forthcoming year, also expected to be a severe drought situation.
 - In addition to the drought being the cause of problems were AGUA's tardiness in providing monthly pumping reports and CWPDA's separate accounting practices. Both of these concerns are currently being addressed to avoid recurrence in the next Plan Year.
 - Another exception is the failure of the Associations to inform their membership of the new seasonal limit requirement, both of its existence and of its impact on their water use practices.

2002 Operation of Rule 14 Plans in 2002

Monthly augmentation coordination meetings were held at the Southeastern Colorado Water Conservancy District (SECWCD) beginning in April 2002 and continuing through November 2002. Representatives from the larger associations attended the meetings

on a regular basis. Pumping, stream depletions and replacement operations were presented at the meeting. Additionally the meetings were used to communicate other Rule 14 operations such as problems with over pumpers, plan amendments, water transfers, and to forecast accounting operations for the following month.

An analysis of exchangeability of Fry-Ark project water return flow was added to the monthly meetings in May 2002. The Arkansas River is broken up into 18 reaches between Pueblo Reservoir and the Stateline. Stream depletions and accretions are calculated on a reach-by-reach basis and summed to determine the credit or deficit in each reach. River call data was used to determine which ditch was the calling right and various stream gages on the Arkansas River were utilized to determine the amount of water that could be credited as having been exchanged. The exchange analysis was performed on a monthly basis and presented at the augmentation meetings for the reaches involving Fry-Ark return flows. In July 2002, river conditions and calling water rights did not allow excess Fry-Ark return flows below the Ft. Lyon headgate to be exchanged back upstream. SECWCD released 375 acre-feet of Project first use water from Pueblo Reservoir to cover stream depletions between the reservoir and Ft. Lyon headgate.

LAWMA also had to release water from its Article II account in John Martin to replace stream depletions in reaches 11 through 16. Almost all Article II water that LAWMA owned was released or booked into the Offset Account during the 2002-03 plan year except for water in LAWMA's Manvel Article II account. Additionally LAWMA had to acquire significant amounts of water from other Article II entities and over 2000 acre-feet from Pueblo Board of Water Works during the 2002-03 plan year.

In the 2002-03 plan year all associations that operated a Rule 14 plan were able to provide sufficient replacement water. All of the major Associations except LAWMA chose to reduce the allowable pumping by member wells for the 2002-03 plan year to 60 to 80% of the prior five year's average pumping. Associations that did not have sufficient replacement water were able to curtail pumping by their members in order to reduce stream depletions to within allowable replacement supplies.

AGUA's Rule 14 plan lost approximately 3,500 acre-feet when the river conditions became so poor that Pueblo Board of Water Works was unable to honor its lease agreement. AGUA was able to make up a portion of the 3,500 acre-feet they lost by acquiring water from Colorado Springs and SECWCD. The remaining portion not covered by Colorado Springs and SECWCD was made up by reducing their members pumping to 60% of their original allocation.

Colorado Springs supplied approximately 2000 acre-feet of transmountain sewer return flow. The water became available when river conditions diminished to the point that they were unable to exchange their transmountain water back into Pueblo Reservoir.

SECWCD allocated 1,000 acre-feet to AGUA from its emergency account in Pueblo Reservoir to offset some of the impact from the loss of Pueblo Board of Water Works water. Five hundred of the one thousand acre-feet allocated was to be repaid to the district with other water sources that AGUA was able to obtain. AGUA used the remaining 500 acre-feet as they needed it. By reducing pumping and obtaining other sources of water AGUA was able to continue operating their plan throughout the 2002-03 plan year.

Enforcement of Pumping Limits in 2002

Enforcement to limit pumping of wells to their allocations became a critical function for the groundwater team in 2002. In prior years since implementation of the Amended Use Rules, sufficient replacement water had been available for purchase under the plans or from other plan members within the same service area to allow additional pumping if a water user was approaching their individual limit. In 2002, pumping under the plans was limited by the availability of replacement water.

Since 2002 represented a critical drought year, it would determine Colorado's ability to operate in accordance with the Use Rules. Operations in compliance with the Use Rules were critical to demonstrate Colorado's ability to comply with the Arkansas River Compact, as well as to allow operation of wells while preventing injury to senior water rights within Colorado.

Enforcement in 2002 focused on individually educating water users and on the ground inspection as wells approached their limits. The data systems that had been developed for determination of monthly pumping allowed us to generate forms (EZ Read Forms) for each farm unit listing the amount of pumping already on record for each well. Each month, after monthly pumping data was entered, forms were produced for any well user who appeared to be ahead of schedule or approaching their limit. The forms provided for reading the meter at the time of the field inspection, and thus being able to determine the exact amount of pumping to date as compared to the allowable pumping. Information so gathered was then shared with the water user to show the amount of pumping which had occurred to date, and the amount remaining. This one on one education, combined with prompt tagging of wells when limits were reached resulted in a high level of compliance in spite of the extremely critical drought.

Measurement Rules Activities

A training session for those seeking approval as well testers pursuant to the Amended Measurement Rules was held in the Pueblo on April 17,18, and 19, 2002. Prospective well testers included individuals from both Division 1 and Division 2.

Re-approval of testers who had been approved in prior years was accomplished by having those individuals conduct an observed test of the standard test well located in Pueblo.

Maintaining a group of qualified well testers continues to be a challenge. Each year, several approved testers choose to no longer provide this service or choose not to seek renewal of their approval.

C. Arkansas River Compact

1. Arkansas River Compact Administration

The Arkansas River Compact Administration met via telephone conference on December 10, 2002 in lieu of the normal meeting in Lamar due to the trial schedule in Kansas v. Colorado and the unavailability of key participants. The decision was made to postpone the meeting until May 22nd and 23rd 2003 in Lamar after the trial segment has been completed and closing legal briefs have been filed by each state.

The ARCA representatives did approve the Trinidad stock watering provision requested by the Purgatoire River Water Conservancy District to allow deliveries during the winter months that would meet the needs of ranchers under the District's ditch systems.

Steve Witte, delivered the Annual Report of the Operations Secretary Concerning the Operation of John Martin Reservoir and the Report of the Colorado State Engineer Concerning Accounting of the Operations of an Offset Account in John Martin Reservoir to the ARCA representatives by the December 1, 2002 deadline.

A series of meetings were held between staff from Colorado and Kansas as directed by the Arkansas River Compact Administration at the 2001 meeting to attempt to resolve differences over a number of issues related to accounting and operation of John Martin Reservoir under the 1980 Operating Plan and quantification of transit loss deficits for deliveries of Kansas Article II water. Although these meetings were productive in terms of better defining the areas of difference there was very little progress towards reaching a mutually acceptable agreement on the major issues.

2. Developments in Kansas vs. Colorado

On April 16, 2002, the Special Master ordered the trial to resume on June 17, 2002 on the following issues: (1) the recalculation of Kansas' damages for the period 1950-1994 in accordance with the Supreme Court's opinion of June 11, 2001; (2) whether there had been depletions to usable Stateline flow, in violation of the Arkansas River Compact, subsequent to the Special Master's order of January 11, 1999 (which determined depletions for 1995-96); (3) the determination of money damages for all depletions occurring after 1994; (4) whether administrative provisions established by Colorado are adequate to ensure present and future compliance with its Compact obligations in regard to well pumping; (5) and other matters required for preparation of a final judgment.

A total of 56 days of trial were held between June 2002 and January 2003. Colorado called fifteen witnesses in their direct case including a number of farmers and well association representatives, Division of Water Resources technical experts and consulting engineers who offered expert witness testimony on various topics. Kansas called five witnesses to respond to the Colorado direct case. Colorado called eight witnesses to testify in rebuttal and Kansas called six witnesses in surrebuttal. Trial concluded with six Colorado sur-surrebuttal witnesses.

Major issues that were testified to included whether to use the Hydrologic-Institutional Model to measure compliance with the Compact, which version to use and over how long of a time period. Kansas still contends that the model is sufficiently accurate to be used annually and even to compute seasonal depletions to usable stateline flow. Colorado argues that the model is not accurate enough in predicting diversions on a short term basis and believes it should only be used to measure compliance over a ten year or longer basis.

Colorado presented significant evidence on data collected and analyzed by Division 2 staff through Assistant Division Engineer Bill Tyner, about irrigated acreage and the acreage irrigated by wells as an important improvement to the H-I Model input data set. Kansas continues to argue that some additional assumptions should be employed when using the acreage data to incorporate it properly in the model.

Kansas sought to change the method used to compute crop consumption from the previous Modified Blaney-Criddle method to the Penman-Monteith equation and developed an alternate input data set to incorporate the data into the model. Colorado argued that there was inadequate data necessary to compute crop consumption by the Penman-Monteith method and also argued that adjustments should be made for the effect of salinity on crop consumption and other climate related effects due to the physical configuration of the Arkansas River Basin

irrigated area. Thomas Ley, of Division 2, contributed testimony in this area.

Kansas presented arguments to encourage the Special Master to appoint a River Master to determine yearly compact compliance and resolve disputes between the states. Colorado countered that binding arbitration was a better approach for resolving future interpretation of compliance and to allow the case to be closed by the Special Master.

Kansas offered considerable testimony to attempt to discredit the operation of the Lower Arkansas Water Management Association replacement plan and many of the replacement sources used by LAWMA. Kansas also presented a prospective compliance analysis to attempt to demonstrate that Colorado's Well Rules would not work to prevent injury to Kansas. Colorado witnesses countered with testimony supporting the operation of the LAWMA plan and pointing out unreasonable assumptions made in the Kansas prospective compliance analysis.

Kansas would like to see the presumptive depletion factors increase or a set percentage of annual pumping delivered to the Offset Account in addition to currently provided replacement sources.

Kansas also continues to argue that the Power Conversion Coefficient method is not reliable for measuring well pumping and that Colorado should either require totalizing flow meters only or utilize a hybrid system that would require flow meters on each well, but would allow some flexibility to also use a power conversion coefficient to estimate monthly pumping in between annual determinations of pumping by the totalizing flow meter. Colorado continues to argue that the PCC Method is reasonably accurate compared to the totalizing flow meters and has continued an study by the USGS to confirm the reliability of this measurement method.

Final closing briefs have been prepared by each state and it is anticipated that the Special Master will complete his final report and recommendations to the Supreme Court by the summer of 2003.

D. Legal and Litigation

1. Water Court Activity

One hundred and ninety new water right applications or other filings were made with the Division Two Water Court during 2002. Consultations to the court are made for all applications for new or proposed changes of water rights. Ninety seven decrees were issued by the court during 2002. A summary of these activities is listed in Appendix E of this report. Other significant legal events are listed below:

- Judge Dennis Maes was appointed as the Water Court Judge for Division Two at the beginning of 2002. Judge Anderson continued with non-water court work for the remainder of the year before retiring from the bench completely at the end of 2002.
- Three trials were held before Judge Maes during 2002. Division Two staff participated in two of these. The first involved the contested application for a new surface water right (98CW094). The second involved a SEO and third party opposed change of two surface irrigation rights listed on the Year 2000 Abandonment List (00CW109). These two rights were abandoned at trial by the court. The City of Aurora trial scheduled for December 2002 to change much of the remaining portion of the Rocky Ford Ditch (99CW169) was postponed until December 2003 as now amended by a December 2002 amendment.
- Division 2 staff continued their effort to maintain close contact with applicants and court referee to minimize number of necessary hearings. Four formal referee hearings were held during 2002 participated in by Division Two staff.
- A marked increase of applications for plans of augmentation were filed in an effort to comply with C.R.S. 37-92-308(4). These applications typically involve a short term augmentation sources not owned by the applicant and essentially result in "temporary" decrees.
- Significant new court applications during 2002 include proposed change of 25% of Fort Lyon Canal Company water rights to include municipal uses and a plan for augmentation filing by Lower Arkansas River Groundwater Management Association. The State Engineer has entered as a party in both of these cases.

2. Empire Lodge

The Colorado Supreme Court entered a modified ruling in Case No. 00SA211, Empire Lodge Homeowners' Association v. Anne Moyer and Russel Moyer, on February 11, 2002. In the ruling on this case which originated in Division 2, the Court determined that an augmentation plan decree was required to authorize Empire Lodge's out-of-priority diversions. Further, the Court found there to be "...legislative intent to consign the matter of authorizing out-of-priority diversions requiring an augmentation plan solely to the water courts." except as specifically authorized by statute. This determination dispelled long held practices where the office of the State Engineer, in reliance upon a different interpretation of §37-80-120, had approved out-of-priority diversions pursuant to substitute water supply plans, in an effort to be more responsive to the public's needs than would otherwise be possible through the Water Courts.

In response to the Court's suggestion, the legislature enacted amendments to the statutes providing additional State Engineer administrative authority in HB 02-1414. This legislation allowed previously approved substitute supply plans to be renewed through the end of the 2002 calendar year. It allowed administrative approval of plans for augmentation, if such applications for approval of such plans

have been made to the Water Court and following consideration of public comments regarding such plans. It also allowed administrative approval of out-of-priority diversions in cases where the stream depletions will be of limited duration, assuming findings of non-injury can be made pursuant to a replacement plan that has been subjected to public notice and comments. Finally, a provision was included that would apply in instances where public health, safety, and welfare would otherwise be placed at risk.

It has taken an entire year for the Division of Water Resources to refine its interpretation of HB-1414. On July 2, 2002, the State Engineer issued Policy 2002-2 in an attempt to address some of the issues. Additional confusion has occurred due to the Court's acknowledgement of the State Engineer's authority to regulate wells pursuant to upon promulgation of rules for a river basin, such as the 1996 amended Arkansas ground water use rules, which specifically contemplate out-of-priority depletions contingent upon administratively approved replacement plans. Despite this acknowledgement, efforts were made to refashion terminology used in the administration of these rules to expunge any reference to substitute water supply plans and to develop a matrix that describes the appropriate procedure to be used in various circumstances in an easily accessible format for reference purposes. As additional specific circumstances are presented for consideration policy revisions continue to be evaluated. It is also quite possible that additional legislation redefining the State Engineer's authority in this regard may be approved in the coming year.

3. Recreational In-Channel Diversion Case and Hearing

In December 2001, following the Colorado Supreme Court rulings in City of Thornton v. City of Fort Collins, 830 P. 2d 915 (Colo. 1992) and the entry of Decree of the District Court in and for Water Division No. 1 in Case No. 98CW448, as well as the passage of SB01-216, the City of Pueblo filed an application for a Recreational In-Channel Diversion water right in support of its proposed recreational boating course (a feature of the Arkansas River Legacy Project) in Case No. 01CW160. Pursuant to the recently legislated procedure, the Colorado Water Conservation Board (the Board) was obligated to submit findings and recommendations to the Water Court regarding matters of state policy pertaining to such appropriative claims. Accordingly the Board scheduled hearings in Pueblo on July 22 and 23, 2002. This hearing was the first ever conducted of this type. Steve Witte, as Division Engineer for Division 2, was called by the City of Pueblo to provide testimony. To the extraordinary surprise of the applicants, the Board issued findings and recommendations very favorable to the applicant, however, the Water Court has not yet ruled on the matter.

E. Tabulation and Abandonment

Division Two published a Year 2002 Tabulation in July as required by statute. This tabulation contained essentially all known decrees issued prior to 2002 and satisfied the quality control requirements of the Hydrobase program. No protests have yet been received contesting this publication. Continuing efforts on improving the quality of this water rights information include:

- Continue efforts at tabulation the few remaining previous decrees.
- Continue to correct errors or make needed changes as they become apparent.
- Update tabulation for new decrees annually as new decrees are issued.
- Continue efforts in searching State Archives and county courthouses for decrees and other pertinent water right information not in the State or Division Engineers Office as it becomes known.
- Continue to acquire copies of Map and File statements from the State Engineers Office for use by Division Two staff for tabulation, water court, and general administrative purposes.

A Revised Abandonment List containing 617 water rights was filed with the Water Court on December 31, 2001 and assigned case number 01CW157. Fourteen protests were filed with the court involving fourteen water rights during 2002. At the end of 2002 three of these protested rights have been abandoned, two removed from the abandonment list, and the remainder still remain before the court.

F. Safety of Dams

The following Dam Safety activities occurred in Division 2 during the past year. While we are happy to report that no significant incidents occurred in 2002, we must express two concerns that will need monitoring and attention in the future. First, is the effect of the drought on the many dams with earthen embankments that have become dried out and sometimes cracked. As these dams refill in the future, a close watch must be maintained to assure damage has not penetrated the dam so deeply as to become a safety problem. Second, we are concerned about difficulty in filling vacancies for dam safety engineer positions on a statewide basis due to budgetary problems. Specifically, we are concerned about less time being available for Division 2 dams because of a need to provide coverage in distant parts of the state.

- Safety inspections were conducted for all Class I, II and III dams in accordance with the 1, 2 and 6 year interval policy. Any deviation from this schedule was approved by the Assistant State Engineer.
- Division 2 DSEs assisted in balancing the increased dam safety workload caused by a staffing shortage by conducting safety inspections, construction inspections, and design reviews in Division 5.
- A revised hydrology study performed by the engineer for Fountain Valley #2 dam (Class I) showed that the existing emergency spillway has adequate capacity to pass the Inflow Design Flood. The restriction on the reservoir level was removed.

- Construction work at Victor #2 dam (Class II) was completed and accepted, and the restriction was removed. The work included repairs to the outlet valve, reconstructed downstream slope, and an enlarged emergency spillway.
- Dam rehabilitation work at Monument Lake Dam (Class II) was completed and accepted, and the restriction was removed. The work included a new outlet conduit and valve, reconstructed downstream slope with a new seepage collection system, and a reconstructed and enlarged emergency spillway.
- Plans were submitted and approved for converting A. McCray dam in Widefield to an exempt structure by breaching the dam.
- A new outlet discharge valve, energy dissipation structure and stilling basin was constructed at North Lake Dam. A design review project was submitted by the City of Trinidad for a complex relief well system below the toe of the dam to relieve high uplift pressures along the toe of the dam and is currently under review. New 30" and 24" diameter outlet discharge valves were installed at Monument Lake by the City of Trinidad as well.
- Reservoir outlet structures and discharge valves were extensively repaired, upgraded and replaced on Wahatoya, Daigre, and Martin Lake Dams. New area / capacity surveys were also performed for all City of Walsenburg reservoirs, including, Wahatoya, Daigre, Horseshoe, Martin, and City Lake.
- Lake Henry owners had plans and specifications approved for a new toe drain system that extends the full length of the southwest embankment. The project is under construction and nearing completion.
- Extensive drainage and stability improvements were made to Lake Beckwith Dam by a joint project undertaken by the Colorado City Metropolitan District and the Pueblo County Road and Bridge Department.

G. Hydrography

The Division 2 Hydrographic Program was conducted in WY2002 under the overall program leadership of Assistant Division Engineer, Bill Tyner, PE II; supported by Lead Hydrographer, Thomas Ley, PE I; Hydrographic Engineer, Lou Schultz, EIT; and Hydrographic Technicians, Anthony Gutierrez and Adam Adame. Bill Tyner also had specific hydrographic program oversight responsibilities for hydrographic record preparation in Division 5 during the water year.

Division 2 hydrographers have assigned gaging stations/areas for which they have responsibility for station operation and maintenance, as well as the complete development and computation of streamflow records for specific historic record and/or compact gaging stations. Lou Schultz is responsible for gaging stations in WD 11 and provides support in WD's 12 and 13. Tony Gutierrez and Tom Ley are responsible for gages in WD's 12, 13, 10, 14, 15, 16, 79, 18 and 19. Adam Adame is responsible for WD's 17 and 67.

Division 2 hydrographic staff completed 46 streamflow records for WY2002 for publication in the DWR Annual Streamflow report. Seven of these streamflow records are also published by the US Geological Survey in their Annual Water Resources for Colorado Data Report.

During the water year, Division 2 hydrographers completed the following stream gage improvement projects:

Flood Hardening:

- Completed installation of flood hardening equipment and facilities at three gages: Arkansas River below Catlin Dam, Purgatoire River at Trinidad, Cucharas River at Harrison Bridge below La Veta.
- Initiated installation of flood hardening facilities at Arkansas River near Wellsville.
- Assisted USGS staff with cross section surveys at 5 gages for purposes of rating extensions for flood flows.

Stream Gage Refurbishment:

- Installation of new shelter at Ninemile Canal.
- Complete rebuild of South Arkansas River at Mouth at Salida gage
- Install new gage at Brett Gray Reservoir outlet flume and connect to DCP at Brett Gray Reservoir at Smith Ranch
- Install SDI Radio Bridges and SDI shaft encoders at Ninemile Canal (linked to Purgatoire River at Ninemile Dam DCP) and Cucharas River below Cucharas Reservoir (linked to Cucharas Reservoir DCP) thereby eliminating two 8004 DCPs.

High Data Rate Satellite Transmissions:

- 20 gaging stations in Division 2 were upgraded with high data rate GOES radio transmitters (300 baud rate, hourly transmissions). These gages are now updated hourly on the DWR real-time streamflow web site
- upgrades in several cases also required installation of SDI shaft encoders and upgraded grounding equipment.

Other activities conducted by Div. 2 hydrographic staff include the inspection of two cableways in Division 2 and one in Division 5 as part of the DWR Hydrographic Program Cableway Safety and Inspection Program.

The 2002 drought required considerable additional work of the Div. 2 hydrographic staff:

- Due to extreme low flows there was a need to develop and/or rework the rating tables for several gaging stations. Ratings were either extended down or reworked for at least 10 gaging stations. In most cases, several unscheduled low flow measurements were made to assist the rating extension or development of a new rating.
- Several additional or "special" measurements were made on streams or ditches at the request of water commissioners and other water administration staff. There were a higher number of such measurements than usual. Some stream gages required rehabilitation just to maintain contact with the stream and to be able to accurately measure low flow stage. As an

example, the Arkansas River above Pueblo gage experienced the lowest flows in its history when the gates at Pueblo Reservoir were closed in August 2002. At flows below about 80 cfs the well becomes isolated. Div.2 hydrographers installed a new low flow primary reference gage and an accububble for accurate measurement of these low flow gage heights. The datum of the gage was decreased and a new rating developed based on several low flow measurements in the range from 1.5 to 80 cfs.

H. Information Technology Highlights for 2002

LaJunta Upgrades

- After nearly a year of extremely sluggish internet access, Qwest finally connected the La Junta office to the high-speed MNT network. Once again, the internet became the most viable tool for obtaining vital information required to operate the Arkansas River basin water rights.
- Denver IT installed a new server for the La Junta office, which instantly resolved issues concerning email, disk saturation and sluggish local area network speeds.

John Martin Accounting System Upgrades

- All historic electronic data from 5.25" floppy disks was imported into an Access database for software standardization and archival purposes. Individual accounts were balanced to prior-year ARCA reports.
- The District 67 account balances and the Summer/Winter Conservation Storage accounts were condensed for the yearly ARCA reports.
- An Access front-end was created to automate and expedite the creation of all tables generated for the annual ARCA reports. In prior years, data was exported to a spreadsheet to perform summations and produce hard-copy tables.

Trinidad Reservoir Accounting Conversion

- The Trinidad Reservoir Accounting system was converted from a Lotus 1-2-3 spreadsheet to Microsoft Access 97. To expedite the conversion, the Trinidad Reservoir Accounting System was patterned after the John Martin Accounting System.
- Charlie DiDomenico performed parallel testing between the Lotus 1-2-3 version and the new Access version of the Trinidad Accounting System.

Arkansas River Water Bank Pilot Project

- The Colorado Water Bank web-based application was designed, developed and implemented through a joint effort between DWR Division II personnel and Southeastern Colorado Water Conservancy District personnel. The team met weekly during the months of September, 2002 thru December 2002 to define customer needs, review web page designs and define rules based upon the "Rules Governing the Arkansas River Bank Pilot Project", House Bill 01-1354.

Windows 2000 and Office 2000 Conversion Efforts

- Through the efforts of Steve Witte and Leah Lewis, the Special Access Policy and Special Access Agreement forms were finalized.
- Once finalized, the agreements were signed by Kathy Trask and Vivian Beal to obtain necessary network permissions to install and administer Windows 2000 client computers.
- Nine new computers were delivered to Division II personnel in December of 2002. Currently, all office personnel computers have been upgraded to Windows 2000 and Office 2000. Water Commissioner computers are currently being reformatted and configured with the Windows 2000 and Office 2000 software.

I. Organization/Personnel/Workload Issues

1. Budgetary Restrictions and the Effect on Operations

Budget restrictions have had a significant effect on our ability to perform water administration duties. During the 2002 water year, major budget cuts were made in both personal services and operations budgets. Those budget cuts occurred during a record drought year. Unfortunately, budgetary problems look much worse for 2003.

In March 2002 a hiring freeze was implemented. That freeze followed a period of delayed filling of vacancies, thereby prohibiting the filling of positions which had already been vacant for some time. When the new fiscal year began on July 1, 2002, the hiring freeze was nominally lifted, but further budget reductions effectively continued the freeze. In early September of 2002, we were notified of an additional 5% budget cut.

Division 2 was fortunate in having most positions occupied as we entered this continuing fiscal crisis. Permanent positions which were vacant and remain vacant include the Deputy Water Commissioner position in WD 19 formerly held by Tony Pantano, and the Administrative Assistant II position in the Pueblo office. Also, Division 2 had been using some of its available man-months to hire temporary well enforcement personnel during the summer months. Through special permission, we were able hire temporary employees to assist with well enforcement in the summer of 2002. Also, although unable to fill the WD 19 deputy position on a permanent basis, we were able to hire a temporary employee for the later part of the summer.

At the current time, we are less than optimistic about the possibilities for hiring even temporary personnel for the two summer groundwater enforcement positions and the summer WD 19 deputy. As a result, we anticipate that we will be unable to maintain the historic level of service to water users in 2003. This is a significant problem for a period of drought.

We have also suffered from less technical support from the Denver office caused by vacancies, particularly with regard to computer network needs.

Reductions in the overtime budget also seriously affected our ability to serve the water users. Early cuts in April required an overtime reduction of 7%. In June, we were advised that overtime for FY 03 would be cut by 43%. In September, a restriction prohibiting any further use of overtime was imposed. In addition to reducing the level of service we could provide for water users in the summer, overtime cuts prohibited special projects such as furthering improvements to the water rights tabulation.

Cuts in the operating budget and groundwater management fund special projects have similarly reduced our ability to perform our duties and provide the historic level of service to the water using community. We have had to restrict mileage driven and have limited purchasing to only the bare essentials. Unfortunately, cuts in operating are compounded by the ever increasing cost of doing business, particularly increased cost of vehicle operations. For the upcoming fiscal year, we are advised that not only will aging vehicles not be replaced, that we will also probably lose at least one, possibly two state vehicles. This negatively effects our operating budget because of the higher per mile cost associated with use of privately owned vehicles.

Division 2 has taken significant measures to reduce costs and control expenses as discussed elsewhere in this report. A big "Thank You" goes to Wendy Bogard for her efforts in this regard.

Perhaps the biggest impact of the budget is on morale. Several Water Districts have duties that must be attended to seven days per week during the irrigation season. In the case of water district 19, the district water commissioner and deputy were previously able to arrange duties to allow a more normal work schedule. With an inability to fill the deputy position, the district commissioner must now work 7 day weeks. We had been seeking a deputy position for water district 17, in part to reduce that down from a 7 day per week job. Unfortunately, that request was not allowed by the legislature. In these two districts and in others, overtime provided at least some compensation for a job that was basically either on duty or on call from 6 AM to 9 PM for the entire irrigation season. While we have advised our personnel that they may not work over 40 hours per week without overtime, but we believe that their devotion to duty may often result in the time being worked, but not reported. A reduction of state owned vehicles will result in lower morale for those who may now have to use their personal vehicle for state work. Several people in Division 2 have deserved a promotion for several years and because of the prior allocation process for promotions and the budget crises over the past few years, these people are frustrated by the apparent inability to advance in spite of having taken on many additional

responsibilities. The threat of involuntary furloughs and layoffs also contributed to morale problems for many. Unfortunately, budget projections for 2003 may result in a much worse situation than existed in 2002.

2. Personnel

Few personnel actions occurred during 2002. The Administrative Assistant II position remained vacant throughout the year. Other actions involved the retirement of Tony Pantao, Deputy Water Commissioner in Water District 19 and the hiring of 3 temporary employees.

Tony Pantano, Position #2136, EPSA II, Retired March 30, 2002

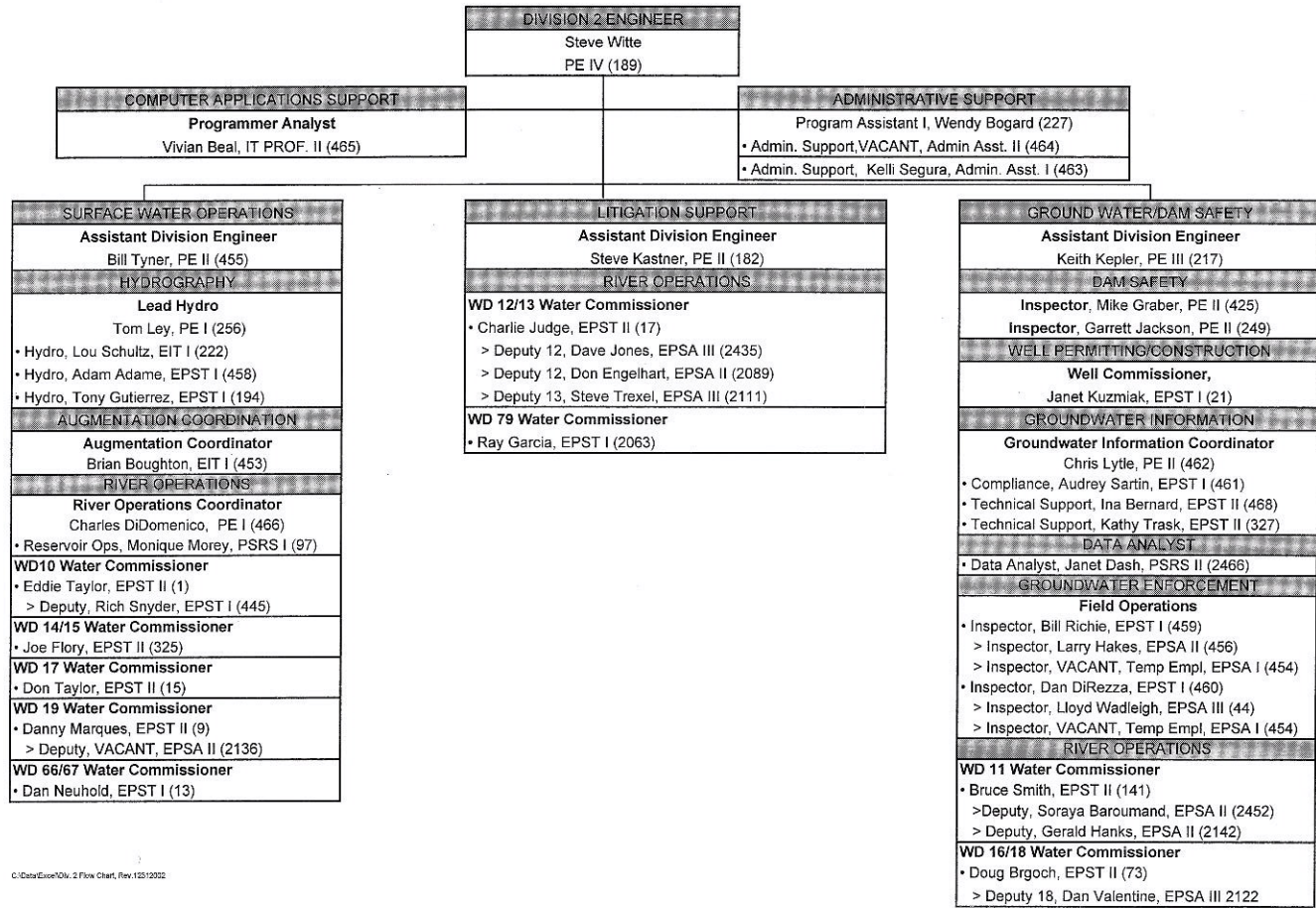
Cheston Hart, EPSA I, Temporary employee, 5/13/02 to 8/9/02

Brian Taylor, EPSA I, Temporary employee, 5/29/02 to 9/30/02

George Ridenour, EPSA I, Temporary employee, 7/8/02 to 9/30/02

Organizational Diagram—on the following page

Colorado Division of Water Resources
 Division 2 Organizational Chart
 December 31, 2001



C:\Data\Error\Ow. 2 Flow Chart, Rev 1/25/2002

3. Training

The Division 2 training program was a less effective program this past year than hoped for. Staffing challenges, increased work load through a very busy year due to the drought, and budget constraints were the reasons for lack of programming. What did happen during Fiscal Year 2001-2002 was computer training for 3 individuals involving 6 different classes (Access, Excel and computer maintenance); attendance at the Program Assistant meeting and the Well Commissioner meeting; USGS Rating Curve Workshop (2 employees); HEC_RAS software training (3 employees); and two In-house Sessions in January 2002. Total expenditures were \$1356 from the Training allocation to Division 2 and \$1104 from other sources. The Statewide Training Committee met in April 2002 in Salida. Wendy Bogard represented Division 2 during that meeting and was able to secure an increased allocation for training in Fiscal Year 2002-2003 (increase from \$1500 per year to \$1900). The reallocation of money approved by that committee was based on the number of employees per each division. There are continued hopes that 2003 will show an increase in training requested and programs provided.

4. Pay for Performance

As with the rest of the state agencies, Division 2 completed it's first full year under Pay for Performance. The supervisors and employees met for planning and for reviews during the year. All supervisors completed the mandatory web-based training in Spring 2002. Division 2 successfully completed the entire process for reviews and submission of Plans in the timeline required. Two "Satisfactory" ratings, 27 "Commendable" ratings, and 13 "Outstanding" ratings were submitted. Most employees understood the performance award criteria and their own situation for receiving these awards. However, there were a few employees that were unclear as to what type of award they were eligible for based on their pay level and their current level at the classification pay range. The funding and final payouts for the Performance Pay Program did not equal the anticipated benefits of such a program. Overall, the process was a valuable tool for supervisors and employees to use for honest and frank discussions.

5. Innovative Administration Processes

Drought Administration

The experience of administration during this period of drought has been instructive to everyone in the organization. It has forced understanding of the relationship between water rights that have never been tested at any time in our history as a state. The development of tools, such as the EZ Read Form which facilitated enforcement of ground water pumping limits, is a great example of applying technology to the efficient performance of our duties. My compliments to the men and women of this organization for having met this challenge.

Ad hoc Diversion Record Committee

A Diversion Record Committee was formed in Spring 2002 and was facilitated by Bill Tyner. Advisors to the group were Steve Witte, Steve Kastner, Keith Kepler, Chris Lytle and Vivian Beal. The committee members were Doug Brgoch, Charlie DiDomenico, Bruce Smith, Charlie Judge, Ray Garcia and Joe Flory. Although the results from this effort have not been as dramatic as some have hoped, the collaborative process that led to better understanding of expectations, purpose, and production problems was itself important. It is also very likely to contribute to better workproduct.

Efforts to Enhance Augmentation Plan Enforcement

The outreach strategy to lot-owners developed in collaboration with the Wet Mountain Water Association and in cooperation with the Upper Arkansas Water Conservancy District represents a never before attempted approach to the problem of effecting compliance with plans for augmentation.

Cost efficiencies

In 2000 pre-paid phone cards were distributed to field staff to reduce the impact of long distance phone calls on the Division 2 budget (reduced the cost from 11 cents per minute through Department of Telecommunications contract with MCI to just under 6 cents per minute with AT & T phone cards). The same procedure was adopted by the Division 2 office for all long distance calls in Fall 2002. This change resulted in long distance charges of 11 cents per minute being reduced to 3 ½ cents per minute—current phone card rate. The savings has been significant to the Division 2 budget.

Division 2 changed vendors for the office copy machine at the beginning of Fiscal Year 2001. The new copy machine (contract with Minolta) has more features including network capabilities and scanning functions. Print jobs can be sent from individual computers and copy functions such as staple, sort, double-side, etc. can be determined by each person based on their specific needs. This feature not only has reduced staff time at the copy machine but has also been more cost effective than sending jobs to the printers (due to contract included maintenance on the copier and toner that is included in the monthly cost). Additionally, the monthly volume of copies appears to be similar to previous years but the monthly bills have been lower than the past 5 fiscal years. The capabilities of this machine offer further time reduction opportunities while being a good budget choice.

6. Agency Meetings

Leadership/State Engineer Meetings were called by Hal Simpson, State Engineer, twice during the year. Steve Witte, Keith Kepler, Steve Kastner, and Bill Tyner attended the Spring Meeting March 6-8, 2002 in Denver. Steve Witte attended a second meeting in Glenwood Springs August 27 & 28, 2002.

Leadership Team Meetings were held monthly in the State Engineer's office. Steve Witte personally attended or participated by telephone conference. Keith Kepler was also a participant in these meetings.

Division 2 hosted two General Staff meetings during the year. The first one was held May 15, 2002 at the offices of Colorado Rural Water Association in Pueblo West. The second meeting was held at the Colorado State Parks auditorium at the Pueblo Reservoir on October 17, 2002.

Division 2 Senior Staff meetings were held 4 times during the year. Attendees at these meetings were Steve Witte, Keith Kepler, Steve Kastner, Bill Tyner, Vivian Beal, and Wendy Bogard.

The Groundwater Group met throughout the year every other Tuesday. These meetings were conducted by Chris Lytle and involved both the groundwater work group and the enforcement group.

7. Employee Recognition

Tom Ley, Lead Hydrographer, was selected Manager of the Year 2001. He attended the State Engineer Recognition Luncheon during the SEO Spring Meeting in March 2002.

Janet Kuzmiak, Well Commissioner, was recognized as Water Commissioner of the Year at the Division 2 Fall meeting (Oct. 17, 2002).

Chris Lytle, Groundwater Information Coordinator, received a Special Recognition Award at the Division 2 Fall Meeting for her outstanding customer service.

8. Employee Council

Bruce Smith, Water District 11 Water Commissioner, was re-elected as the Division 2 representative to Employee Council at the Spring Meeting (May 15, 2002). Surveys were distributed to all employees by e-mail in October and hard copies were made available at the Fall Meeting (Oct. 17, 2002). Surveys were collected at that time.

J. Involvement in the Water Community

Employees of Division 2 were involved in numerous meetings with the conservancy districts, ditch companies, water user groups, and participated in many public outreach events.

Conservancy Districts include Southeastern Colorado Water Conservancy District, Purgatorie Water Conservancy District and Upper Arkansas Water Conservancy District.

It was with profound disappointment that news was received of the resignation of Mr. Steve Arveschoug as general manager of the Southeastern Colorado Water Conservancy District in June 2002. Steve provided progressive leadership for the Arkansas Valley throughout his tenure with the District.

Groundwater Associations include Arkansas Groundwater Users Association, Colorado Water Protective Association and Lower Arkansas Water Management Association.

Ditch and Canal Companies include Amity Canal, Bessemer Ditch, Catlin Canal, Colorado Canal, Fort Bent Canal, Fort Lyon Canal, High Line Canal, Highland Canal, Holbrook Canal, Otero Ditch, Oxford Farmers Ditch, Rocky Ford Ditch, and Welton Ditch.

Other involvement include:

Augmentation Allocation meetings (monthly)

Water Banking public hearings

Well Tester class

Well Tester Re-certification class

CSU Extension office water quality meetings

Wet Mountain Valley Users Association

Colorado Rural Water Association

Well Users Workshops

Fourth Annual Children's Water Festival

Operation Fry-Ark Project

Winter Water Storage

Colorado State Fair exhibit

Public meetings with WD14/15 surface water owners/operators

Colorado Water Officials Association Annual Meeting

"Corn or Condos? Conversion of Agricultural Water to Municipal Use in the Arkansas River Basin" was the theme for the CWOA Annual Meeting October 2-4, 2002.

CWOA conventions have always been educational and an opportunity to meet and enjoy the other people of Water Resources. Because of the drought and its related problems, the CWOA days were a welcome respite. It's always a benefit to hear how the public and others from Water Resources solve and address the growing water issues of our state. It also helps in our efforts to serve the public through finding solutions to problems.

On October 2, 2002 the conference began with the annual Chuck Lyle scholarship golf tournament. Approximately 20 golfers braved a very cold, rainy day at the very beautiful Pine Creek Golf Course in Colorado Springs.

Thursday morning (Oct. 3), at the Pueblo Convention Center, a discussion/debate was held presenting the two sides of the issue: "Should water be moved from the Arkansas basin?" Farmers and city representatives gave us both perspectives. Some farmers felt that the water should stay on the land while others viewed selling their water as an alternative way to produce income. The owners of the water rights want to protect/increase the value of their water by always having the right to sell/move it. The sale/move of water creates several additional issues, such as the affect on neighbors and the aesthetics of the drainage. With less flows, water is not as easily diverted by the remaining water right owners, and tourism and sportsmen suffer as well because less flows influence rafting and fishing which have huge economic impacts.

A "Water Rodeo" was held on the afternoon of October 3 at Pueblo City Park. Several teams were fielded from the divisions. Their objectives were to: 1--locate several GPS locations; 2--estimate water flows; 3--calculate volumes and areas of water; and 4--perform various agility feats while holding a container of water. The rodeo contestants had a great time. A testimony to the success of this event was evidenced by the statement that the contestants said, "they were going to continue and expand this event in the coming years."

II. OBJECTIVES FOR 2003

A. Diversion Record Quality and Hydrobase System Conversion

Additional quality control work needs to be performed on existing diversion records for Water Districts 14, 17, and 67 for the 1970-1985 time period to correct the existing DWR electronic data set. Certain coding and data entry errors have been identified for this record set and to date the majority of these errors have been corrected. It is apparent most of these errors stemmed from transferring data from the hand written Water Commissioner information into computers. Typical errors include entry of incorrect values, incorrect codes, or the information simply having never been added to the electronic data set. The objective is to correct the remaining minority of these identified problems. For all of Division Two's previous diversion records efforts are also planned to complete corrections and changes necessary to allow the inclusion of these records into the existing Hydrobase system.

It is also planned that Division Two will adopt the Hydrobase data entry tools in 2003. Excepting the above diversion record data all other data is currently compatible and only training and computer software upgrades prevent this effort. Computer upgrades are anticipated for the February and March period with a Hydrobase skills training session planned during April. It is planned that all diversion records and all future tabulation efforts will be accomplished in 2003 using these new Hydrobase tools.

B. Strive to Protect Personnel, Positions, and Improve Working Conditions

In the circumstances of financial crisis that the State of Colorado is now in this objective may prove the most difficult to accomplish. Never the less, we must be mindful that among the factors bearing most heavily on morale are those related to money...appropriate compensation for services provided, promises of pay for performance, promotions and advancement, adequate help to prevent burn-out and despair...these all affect whether a person feels appreciated. We simply must do all that can be done to positively affect morale for the sake of our employees and the citizens of this state who rely on the services that we provide.

C. Improve Relations with Supervision of Field Personnel

Drought conditions combined with the factors cited above all tend to place extraordinary stress on Water Resources employees, in particular on our field enforcement personnel. One thing we need to strive to do is to support them by being accessible to them and by reaching out through supervisors to better understand their problems and thus be better able to advise and assist them in the performance of their jobs. Such efforts will make supervisors more knowledgeable of circumstances in the field as well.

D. Resolve Chronic Surface Water Administration Issues

- Seek to resolve and/or narrow issues raised by the Assistant Operations Secretary through appropriate processes of the Arkansas River Compact Administration.
- Evaluate reasonable means of assessing transit losses for Article II deliveries.
- Institute effective administration on Steels Fork

E. Effectively Administer and Enforce Groundwater Use Rules in Drought

Monitor the affect of approved replacement plans; review and revise implementation and enforcement procedures accordingly.

F. Content Manager

The imaging system, known as Content Manager, was explained at the annual Program Assistant meeting in August 2001. There has been a keen interest in obtaining this program in the division offices since that time. The desire to have this capability in the Division 2 office was reinforced when Wendy Bogard, Steve Kastner, Joe Flory and Kelli Segura visited the Denver Records Section in October 2002 and learned more about the capabilities of the system.

This program has the potential to greatly increase the productivity of the Division staff and better serve the public through the staff's ability to immediately access well permit files, diversion records, field books, and court cases. In addition to quicker localized research capabilities, the Division 2 staff would have access to records they are currently unaware are available. Decentralization of this technology would also reduce the demand on Denver Record's staff time by enabling Division staff to access needed records directly.

A further benefit would be to reduce the amount of paper filed on-site at the Division office. The record keeping and administration demands on Division of Water Resources increase each year. With those increases comes the need for additional space to store these records. The Division 2 office space is limited and can no longer accommodate expansion demands.

With Content Manager, the division office would be able to make file space available for records currently available in an electronic format by eliminating or archiving records that are imaged. The technology for this is available but currently limited to the Denver office. The ability to share the resource of imaged records would benefit the entire agency by allowing staff to work more efficiently and to provide the quality customer service we pride ourselves on.

G. GIS projects

- Implement pilot project to quantify the effect of unregulated illegal water impoundment structures through analysis of satellite imagery as a means to develop policy or guidelines regarding the future administration of such structures.
- Implement the 2003 Irrigated Acreage Verification Project

- Expand and improve future applications of GIS technology through continued efforts to collect accurate geographic location data with GPS technology and the acquisition of other data types (i.e. maps of acreage removed from irrigation, etc.)

H. Assist Development of Drought Contingency Policies and Water Management Proposals

The drought that continued through 2002 has motivated Coloradoans to consider innovative measures to better deal with the limited water supply in this arid region. The Division of Water Resources has a role to play in helping shape the future. This role includes commenting on the anticipated impact to existing water rights as a result of new proposals and implementing the Arkansas River Pilot Water Bank. We also intend to provide assistance to the Lower Arkansas Water Conservancy District, created by the voters in the fall of 2002, as they seek to define their mission. We also will challenge the Southeastern Water Conservancy District to consider innovative ways in which they can maximize the benefit of their available water resources and facilitate discussions of such ideas as tamarisk eradication and cloud seeding.

APPENDIX A

Transmountain Diversion Summary

WY 2002 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS

RECIPIENT					SOURCE	
DIV/WD	DIVERSION STRUCTURE	STREAM	ACRE-FEET	DAYS	DIV/WD	STREAM
2/11	COLUMBINE DITCH	ARKANSAS RIVER	780	56	5/37	EAGLE RIVER
2/11	EWING DITCH	TENNESSEE CREEK	192	68	5/37	EAGLE RIVER
2/11	WURTZ DITCH	TENNESSEE CREEK	647	65	5/37	EAGLE RIVER
2/11	HOMESTAKE TUNNEL	LAKE FORK CREEK	26,510	86	5/37	EAGLE RIVER
2/11	BOUSTEAD TUNNEL	LAKE FORK CREEK	15,780	365	5/38	FRYINGPAN RIVER
2/11	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	2,680	184	5/38	FRYINGPAN RIVER
2/11	TWIN LAKES TUNNEL	LAKE CREEK	20,570	365	5/38	ROARING FORK RIVER
2/11	LARKSPUR DITCH	PONCHA CREEK	0	0	4/28	TOMICHI CREEK
2/79	HUDSON DITCH	HUERFANO RIVER	41	62	3/35	MEDANO CREEK
2/79	MEDANO DITCH	HUERFANO RIVER	24	8	3/35	MEDANO CREEK
	TOTAL:		67,224			

WY 2002 TRANSMOUNTAIN DIVERSION SUMMARY - OUTFLOWS

RECIPIENT					SOURCE	
DIV/WD	DIVERSION STRUCTURE	STREAM	ACRE-FEET	DAYS	DIV/WD	STREAM
5/36&37	STEVENS-LEITER WELL (AKA ARKANSAS WELL)	BLUE/EAGLE RIVERS	534	365	2/11	GROUNDWATER
	TOTAL:		534			

APPENDIX B

Water Diversion Summary

IY 2002 WATER DIVERSION SUMMARY*															
ACRE FEET															
USE TYPE	WD10	WD11	WD12	WD13	WD14	WD15	WD16	WD17	WD18	WD19	WD66	WD67	WD79	TOTAL	
IRRIGATION	27,393	151,580	102,100	28,057	57,103	3,173	2,591	248,755	0	8,182	0	177,759	4,006	810,699	
STORAGE	10,352	91,284	212	0	54,763	0	1,174	76,344	0	2,065	0	34,544	0	270,738	
MUNICIPAL	94,578	4,353	9,832	180	37,410	1,593	2,410	5,802	136	1,906	0	3,721	30	161,951	
COMMERCIAL	66	62	19	0	107	18	41	346	0	12	0	1,822	0	2,493	
DOMESTIC	8	41	64	0	142	88	2	0	0	0	0	257	0	602	
STOCK	8	0	13	0	5	1	0	0	0	897	0	0	0	924	
INDUSTRIAL	18	0	70,089	0	50	2,558	0	0	0	0	0	7,219	0	79,934	
RECREATIONAL	0	0	213	0	0	2	0	0	0	272	0	0	0	487	
FISHERY	0	3,020	0	0	0	494	0	593	0	0	0	0	0	4,107	
AUGMENTATION	20,812	184	0	0	20,267	0	26	0	0	0	0	8,241	0	49,530	
RECHARGE	0	0	0	0	0	0	0	0	0	0	0	1,216	0	1,216	
OTHER	13,841	2,717	2,709	0	10,038	2,472	0	0	0	0	0	0	0	31,777	
TOTAL	167,076	253,241	185,251	28,237	179,885	10,399	6,244	331,840	136	13,334	0	234,779	4,036	1,414,458	
# of Observations	3,144	2,589	4,818	472	2,486	541	2,865	5,835	605	706	0	2,457	5,245	31,763	
# of Structures	598	279	205	188	710	144	91	1,045	45	53	0	909	191	4,458	
Acres Irrigated	5,000	6,900	11,800	21,900	84,800	5,700	5,800	163,100	3,400	15,400	0	87,500	13,700	425,000	

*Data includes groundwater diversions.
 *Acres irrigated by WD where diversions take place. Source: P. O. Abbott, Water Commissioners & 1998 Irrigated Acreage Study for Lower Arkansas Basin.
 Updated:03/14/03

APPENDIX C

Arkansas River Calls

Date	Priority Date	Arkansas River Call
11/1/2001	03/01/1887	FORT LYON #2
11/2/2001	03/01/1887	FORT LYON #2
11/3/2001	03/01/1887	FORT LYON #2
11/4/2001	03/01/1887	FORT LYON #2
11/5/2001	03/01/1887	FORT LYON #2
11/6/2001	03/01/1887	FORT LYON #2
11/7/2001	03/01/1887	FORT LYON #2
11/8/2001	03/01/1887	FORT LYON #2
11/9/2001	03/01/1887	FORT LYON #2
11/10/2001	03/01/1887	FORT LYON #2
11/11/2001	03/01/1887	FORT LYON #2
11/12/2001	03/01/1887	FORT LYON #2
11/13/2001	03/01/1887	FORT LYON #2
11/14/2001	03/01/1887	FORT LYON #2
11/15/2001	03/01/1910	WINTER WATER
11/16/2001	03/01/1910	WINTER WATER
11/17/2001	03/01/1910	WINTER WATER
11/18/2001	03/01/1910	WINTER WATER
11/19/2001	03/01/1910	WINTER WATER
11/20/2001	03/01/1910	WINTER WATER
11/21/2001	03/01/1910	WINTER WATER
11/22/2001	03/01/1910	WINTER WATER
11/23/2001	03/01/1910	WINTER WATER
11/24/2001	03/01/1910	WINTER WATER
11/25/2001	03/01/1910	WINTER WATER
11/26/2001	03/01/1910	WINTER WATER
11/27/2001	03/01/1910	WINTER WATER
11/28/2001	03/01/1910	WINTER WATER
11/29/2001	03/01/1910	WINTER WATER
11/30/2001	03/01/1910	WINTER WATER
12/1/2001	03/01/1910	WINTER WATER
12/2/2001	03/01/1910	WINTER WATER
12/3/2001	03/01/1910	WINTER WATER
12/4/2001	03/01/1910	WINTER WATER
12/5/2001	03/01/1910	WINTER WATER
12/6/2001	03/01/1910	WINTER WATER
12/7/2001	03/01/1910	WINTER WATER
12/8/2001	03/01/1910	WINTER WATER
12/9/2001	03/01/1910	WINTER WATER
12/10/2001	03/01/1910	WINTER WATER
12/11/2001	03/01/1910	WINTER WATER
12/12/2001	03/01/1910	WINTER WATER
12/13/2001	03/01/1910	WINTER WATER
12/14/2001	03/01/1910	WINTER WATER
12/15/2001	03/01/1910	WINTER WATER
12/16/2001	03/01/1910	WINTER WATER
12/17/2001	03/01/1910	WINTER WATER
12/18/2001	03/01/1910	WINTER WATER

Date	Priority Date	Arkansas River Call
12/19/2001	03/01/1910	WINTER WATER
12/20/2001	03/01/1910	WINTER WATER
12/21/2001	03/01/1910	WINTER WATER
12/22/2001	03/01/1910	WINTER WATER
12/23/2001	03/01/1910	WINTER WATER
12/24/2001	03/01/1910	WINTER WATER
12/25/2001	03/01/1910	WINTER WATER
12/26/2001	03/01/1910	WINTER WATER
12/27/2001	03/01/1910	WINTER WATER
12/28/2001	03/01/1910	WINTER WATER
12/29/2001	03/01/1910	WINTER WATER
12/30/2001	03/01/1910	WINTER WATER
12/31/2001	03/01/1910	WINTER WATER
1/1/2002	03/01/1910	WINTER WATER
1/2/2002	03/01/1910	WINTER WATER
1/3/2002	03/01/1910	WINTER WATER
1/4/2002	03/01/1910	WINTER WATER
1/5/2002	03/01/1910	WINTER WATER
1/6/2002	03/01/1910	WINTER WATER
1/7/2002	03/01/1910	WINTER WATER
1/8/2002	03/01/1910	WINTER WATER
1/9/2002	03/01/1910	WINTER WATER
1/10/2002	03/01/1910	WINTER WATER
1/11/2002	03/01/1910	WINTER WATER
1/12/2002	03/01/1910	WINTER WATER
1/13/2002	03/01/1910	WINTER WATER
1/14/2002	03/01/1910	WINTER WATER
1/15/2002	03/01/1910	WINTER WATER
1/16/2002	03/01/1910	WINTER WATER
1/17/2002	03/01/1910	WINTER WATER
1/18/2002	03/01/1910	WINTER WATER
1/19/2002	03/01/1910	WINTER WATER
1/20/2002	03/01/1910	WINTER WATER
1/21/2002	03/01/1910	WINTER WATER
1/22/2002	03/01/1910	WINTER WATER
1/23/2002	03/01/1910	WINTER WATER
1/24/2002	03/01/1910	WINTER WATER
1/25/2002	03/01/1910	WINTER WATER
1/26/2002	03/01/1910	WINTER WATER
1/27/2002	03/01/1910	WINTER WATER
1/28/2002	03/01/1910	WINTER WATER
1/29/2002	03/01/1910	WINTER WATER
1/30/2002	03/01/1910	WINTER WATER
1/31/2002	03/01/1910	WINTER WATER
2/1/2002	03/01/1910	WINTER WATER
2/2/2002	03/01/1910	WINTER WATER
2/3/2002	03/01/1910	WINTER WATER
2/4/2002	03/01/1910	WINTER WATER
2/5/2002	03/01/1910	WINTER WATER
2/6/2002	03/01/1910	WINTER WATER
2/7/2002	03/01/1910	WINTER WATER
2/8/2002	03/01/1910	WINTER WATER
2/9/2002	03/01/1910	WINTER WATER
2/10/2002	03/01/1910	WINTER WATER
2/11/2002	03/01/1910	WINTER WATER

Date	Priority Date	Arkansas River Call
2/12/2002	03/01/1910	WINTER WATER
2/13/2002	03/01/1910	WINTER WATER
2/14/2002	03/01/1910	WINTER WATER
2/15/2002	03/01/1910	WINTER WATER
2/16/2002	03/01/1910	WINTER WATER
2/17/2002	03/01/1910	WINTER WATER
2/18/2002	03/01/1910	WINTER WATER
2/19/2002	03/01/1910	WINTER WATER
2/20/2002	03/01/1910	WINTER WATER
2/21/2002	03/01/1910	WINTER WATER
2/22/2002	03/01/1910	WINTER WATER
2/23/2002	03/01/1910	WINTER WATER
2/24/2002	03/01/1910	WINTER WATER
2/25/2002	03/01/1910	WINTER WATER
2/26/2002	03/01/1910	WINTER WATER
2/27/2002	03/01/1910	WINTER WATER
2/28/2002	03/01/1910	WINTER WATER
3/1/2002	03/01/1910	WINTER WATER
3/2/2002	03/01/1910	WINTER WATER
3/3/2002	03/01/1910	WINTER WATER
3/4/2002	03/01/1910	WINTER WATER
3/5/2002	03/01/1910	WINTER WATER
3/6/2002	03/01/1910	WINTER WATER
3/7/2002	03/01/1910	WINTER WATER
3/8/2002	03/01/1910	WINTER WATER
3/9/2002	03/01/1910	WINTER WATER
3/10/2002	03/01/1910	WINTER WATER
3/11/2002	03/01/1910	WINTER WATER
3/12/2002	03/01/1910	WINTER WATER
3/13/2002	03/01/1910	WINTER WATER
3/14/2002	03/01/1910	WINTER WATER
3/15/2002	12/03/1884	CATLIN
3/16/2002	3/1/1887	FORT LYON #2
3/17/2002	03/01/1887	FORT LYON #2
3/18/2002	12/03/1884	CATLIN
3/19/2002	12/3/1884	CATLIN
3/20/2002	12/3/1884	CATLIN
3/21/2002	12/3/1884	CATLIN
3/22/2002	12/3/1884	CATLIN
3/23/2002	12/3/1884	CATLIN
3/24/2002	12/3/1884	CATLIN
3/25/2002	12/3/1884	CATLIN
3/26/2002	12/03/1884	CATLIN
3/27/2002	12/03/1884	CATLIN
3/28/2002	06/30/1885	Highline
3/29/2002	06/30/1885	Highline
3/30/2002	06/30/1885	Highline
3/31/2002	06/30/1885	Highline
4/1/2002	12/03/1884	CATLIN
4/2/2002	12/03/1884	CATLIN
4/3/2002	04/15/1884	FORT LYON #1
4/4/2002	12/03/1884	CATLIN
4/5/2002	12/03/1884	CATLIN
4/6/2002	12/03/1884	CATLIN
4/7/2002	04/15/1884	FORT LYON #1

Date	Priority Date	Arkansas River Call
4/8/2002	04/15/1884	FORT LYON #1
4/9/2002	12/03/1884	CATLIN
4/10/2002	12/03/1884	CATLIN
4/11/2002	12/03/1884	CATLIN
4/12/2002	12/03/1884	CATLIN
4/13/2002	04/15/1884	FORT LYON #1
4/14/2002	04/15/1884	FORT LYON #1
4/15/2002	04/15/1884	FORT LYON #1
4/16/2002	04/15/1884	FORT LYON #1
4/17/2002	04/15/1884	FORT LYON #1
4/18/2002	04/15/1884	FORT LYON #1
4/19/2002	04/15/1884	FORT LYON #1
4/20/2002	04/15/1884	FORT LYON #1
4/21/2002	04/15/1884	FORT LYON #1
4/22/2002	04/15/1884	FORT LYON #1
4/23/2002	04/15/1884	FORT LYON #1
4/24/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1
4/25/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1
4/26/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1
4/27/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1
4/28/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1
4/29/2002	04/01/1874 - 04/15/1884	PBWW / FORT LYON #1; FORT LYON #1 @ 1600
4/30/2002	05/15/1874	ROCKY FORD #1
5/1/2002	05/15/1874	ROCKY FORD #1
5/2/2002	05/15/1874	ROCKY FORD #1
5/3/2002	05/15/1874	ROCKY FORD #1
5/4/2002	05/15/1874	ROCKY FORD #1
5/5/2002	05/15/1874	ROCKY FORD #1
5/6/2002	05/15/1874	ROCKY FORD #1
5/7/2002	05/15/1874	ROCKY FORD #1
5/8/2002	05/15/1874	ROCKY FORD #1
5/9/2002	05/15/1874	ROCKY FORD #1
5/10/2002	03/07/1884	ROCKY FORD HIGHLINE
5/11/2002	03/07/1884	ROCKY FORD HIGHLINE
5/12/2002	03/07/1884	ROCKY FORD HIGHLINE
5/13/2002	12/03/1884	CATLIN
5/14/2002	05/15/1874	ROCKY FORD #1
5/15/2002	05/15/1874	ROCKY FORD #1
5/16/2002	05/15/1874	ROCKY FORD #1
5/17/2002	05/15/1874 - 03/07/1884	Rocky Ford #1 / RF Highline (Changed @ 12:00)
5/18/2002	03/07/1884	ROCKY FORD HIGHLINE
5/19/2002	03/07/1884	ROCKY FORD HIGHLINE
5/20/2002	03/07/1884	ROCKY FORD HIGHLINE
5/21/2002	12/3/1884	CATLIN/CONSOLIDATED
5/22/2002	12/3/1884	CATLIN/CONSOLIDATED
5/23/2002	12/3/1884	CATLIN/CONSOLIDATED
5/24/2002	12/3/1884	CATLIN/CONSOLIDATED
5/25/2002	12/3/1884	CATLIN/CONSOLIDATED

Date	Priority Date	Arkansas River Call
5/26/2002	12/3/1884	CATLIN/CONSOLIDATED
5/27/2002	12/3/1884	CATLIN/CONSOLIDATED
5/28/2002	04/15/1884	FORT LYON #1
5/29/2002	04/15/1884	FORT LYON #1
5/30/2002	04/15/1884	FORT LYON #1
5/31/2002	04/15/1884	FORT LYON #1
6/1/2002	04/15/1884	FORT LYON #1
6/2/2002	04/15/1884	FORT LYON #1
6/3/2002	04/15/1884	FORT LYON #1
6/4/2002	04/15/1884	FORT LYON #1
6/5/2002	12/03/1884	Catlin
6/6/2002	12/3/1884	CATLIN
6/7/2002	12/3/1884	CATLIN
6/8/2002	12/3/1884	CATLIN
6/9/2002	12/3/1884	CATLIN
6/10/2002	12/3/1884	CATLIN
6/11/2002	12/3/1884	CATLIN
6/12/2002	4/15/1884	FORT LYON #1
6/13/2002	4/15/1884	FORT LYON #1
6/14/2002	4/15/1884	FORT LYON #1
6/15/2002	4/15/1884	FORT LYON #1
6/16/2002	4/15/1884	FORT LYON #1
6/17/2002	4/15/1884	FORT LYON #1
6/18/2002	04/15/1884	FORT LYON #1
6/19/2002	04/15/1884	FORT LYON #1
6/20/2002	05/15/1874	ROCKY FORD #1
6/21/2002	03/31/1882	BESSEMER
6/22/2002	03/31/1882	BESSEMER
6/23/2002	03/31/1882	BESSEMER
6/24/2002	05/15/1874	ROCKY FORD #1
6/25/2002	05/15/1874	ROCKY FORD #1
6/26/2002	05/15/1874	ROCKY FORD #1
6/27/2002	05/15/1874	ROCKY FORD #1
6/28/2002	05/15/1874	ROCKY FORD #1
6/29/2002	05/15/1874	ROCKY FORD #1
6/30/2002	05/15/1874	ROCKY FORD #1
7/1/2002	05/15/1874	ROCKY FORD #1
7/2/2002	05/15/1874	ROCKY FORD #1
7/3/2002	05/15/1874 - 12/31/1883	Split: ROCKY FORD #1 / KEESEE
7/4/2002	05/15/1874 - 12/31/1883	Split: ROCKY FORD #1 / KEESEE
7/5/2002	05/15/1874 - 04/01/1886	Split: ROCKY FORD #1 / FT. BENT
7/6/2002	05/15/1874 - 04/01/1886	Split: ROCKY FORD #1 / FT. BENT
7/7/2002	12/03/1884	CATLIN/CONSOLIDATED
7/8/2002	12/03/1884	CATLIN/CONSOLIDATED
7/9/2002	12/03/1884	CATLIN/CONSOLIDATED
7/10/2002	12/03/1884	CATLIN/CONSOLIDATED
7/11/2002	04/15/1884 - 04/01/1886	Split: FORT LYON #1 / FORT BENT
7/12/2002	12/31/1878; 04/15/1884; 04/01/1886	Split: BESSEMER / FT LYON # 1 / FT BENT

Date	Priority Date	Arkansas River Call
7/13/2002	05/15/1874; 11/04/1886	Split: ROCKY FORD #1 / LAMAR #2
7/14/2002	05/15/1874; 11/04/1886	Split: ROCKY FORD #1 / LAMAR #2
7/15/2002	04/01/1874; 05/15/1874	Split: PBWW / ROCKY FORD # 1
7/16/2002	07/01/1869; 11/04/1886	Split: ROCKY FORD HIGHLINE / LAMAR #2
7/17/2002	07/01/1869; 11/04/1886	Split: ROCKY FORD HIGHLINE / LAMAR #2
7/18/2002	07/01/1869	Split: ROCKY FORD HIGHLINE
7/19/2002	07/01/1869	ROCKY FORD HIGHLINE
7/20/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/21/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/22/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/23/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/24/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/25/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/26/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/27/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/28/2002	07/01/1869; 01/29/1885	Split: ROCKY FORD HIGHLINE / BUFFALO
7/29/2002	05/15/1874; 01/29/1885	Split Call: ROCKY FORD DITCH / BUFFALO
7/30/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
7/31/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/1/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/2/2002	05/01/1872; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/3/2002	05/01/1872; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/4/2002	05/01/1872; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/5/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO

Date	Priority Date	Arkansas River Call
8/6/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/7/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/8/2002	09/18/1873; 05/15/1874; 01/29/1885	Split Call: BESSEMER / ROCKY FORD / BUFFALO
8/9/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/10/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/11/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/12/2002	04/01/1874; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/13/2002	03/31/1871; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/14/2002	05/31/1867; 05/15/1874; 01/29/1885	Split Call: BESSEMER / ROCKY FORD / BUFFALO
8/15/2002	12/31/1870; 05/15/1874; 01/29/1885	Split Call: BESSEMER / ROCKY FORD / BUFFALO
8/16/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/17/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/18/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/19/2002	07/01/1869; 01/29/1885	Split Call: Rocky Ford Highline / Buffalo
8/20/2002	07/01/1869; 01/29/1885	Split Call: Rocky Ford Highline / Buffalo
8/21/2002	07/01/1869; 01/29/1885	Split Call: Rocky Ford Highline / Buffalo
8/22/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/23/2002	03/31/1871; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO

Date	Priority Date	Arkansas River Call
8/24/2002	03/31/1871; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/25/2002	03/31/1871; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/26/2002	04/01/1872; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
8/27/2002	05/31/1867; 05/15/1874; 01/29/1885	Split Call: BESSEMER / ROCKY FORD / BUFFALO
8/28/2002	12/31/1870; 05/15/1874; 01/29/1885	Split Call: BESSEMER / ROCKY FORD / BUFFALO
8/29/2002	04/01/1874; 05/15/1874	Split Call: PBWW / ROCKY FORD
8/30/2002	04/01/1874; 05/15/1874	Split Call: PBWW / ROCKY FORD
8/31/2002	04/01/1874; 05/15/1874	Split Call: PBWW / ROCKY FORD
9/1/2002	04/01/1874; 05/15/1874	Split Call: PBWW / ROCKY FORD
9/2/2002	04/01/1874; 05/15/1874	Split Call: PBWW / ROCKY FORD
9/3/2002	05/31/1867; 05/15/1874	Split Call: BESSEMER / ROCKY FORD
9/4/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
9/5/2002	05/01/1870; 05/15/1874; 01/29/1885	Split Call: PBWW / ROCKY FORD / BUFFALO
9/6/2002	07/01/1869; 01/29/1885	Split Call: ROCKY FORD HIGHLINE / BUFFALO
9/7/2002	07/01/1869; 01/29/1885	Split Call: ROCKY FORD HIGHLINE / BUFFALO
9/8/2002	07/01/1869; 01/29/1885	Split Call: ROCKY FORD HIGHLINE / BUFFALO
9/9/2002	07/01/1869; 01/29/1885	Split Call: ROCKY FORD HIGHLINE / BUFFALO
9/10/2002	07/01/1869	ROCKY FORD HIGHLINE
9/11/2002	05/15/1874	ROCKY FORD DITCH
9/12/2002	05/15/1874	ROCKY FORD DITCH
9/13/2002	05/15/1874	ROCKY FORD DITCH
9/14/2002	03/07/1884	HIGHLINE
9/15/2002	03/07/1884	HIGHLINE
9/16/2002	04/01/1874	PBWW
9/17/2002	04/01/1874	PBWW
9/18/2002	04/01/1874	PBWW
9/19/2002	04/01/1874	PBWW
9/20/2002	04/01/1874	PBWW
9/21/2002	04/01/1874	PBWW
9/22/2002	04/01/1874	PBWW

Date	Priority Date	Arkansas River Call
9/23/2002	04/01/1874	PBWW
9/24/2002	04/01/1874	PBWW
9/25/2002	04/01/1874	Pbww
9/26/2002	04/01/1874	PBWW
9/27/2002	04/01/1874	PBWW
9/28/2002	04/01/1874	PBWW
9/29/2002	04/01/1874	PBWW
9/30/2002	04/01/1874	PBWW
10/1/2002	04/01/1874	PBWW
10/2/2002	05/15/1874	ROCKY FORD DITCH
10/3/2002	05/15/1874	ROCKY FORD DITCH
10/4/2002	05/15/1874	ROCKY FORD DITCH
10/5/2002	05/15/1874	ROCKY FORD DITCH
10/6/2002	05/15/1874	ROCKY FORD DITCH
10/7/2002	05/15/1874	ROCKY FORD DITCH
10/8/2002	05/15/1874	ROCKY FORD DITCH
10/9/2002	03/07/1884	ROCKY FORD HIGHLINE
10/10/2002	03/07/1884	ROCKY FORD HIGHLINE
10/11/2002	03/07/1884	ROCKY FORD HIGHLINE
10/12/2002	05/15/1874	ROCKY FORD DITCH
10/13/2002	05/15/1874	ROCKY FORD DITCH
10/14/2002	05/15/1874	ROCKY FORD DITCH
10/15/2002	05/15/1874	ROCKY FORD DITCH
10/16/2002	05/15/1874	ROCKY FORD DITCH
10/17/2002	04/01/1874 ; 05/15/1874	Split Call: PBWW / ROCKY FORD
10/18/2002	04/01/1874 ; 05/15/1874	Split Call: PBWW / ROCKY FORD
10/19/2002	04/01/1874 ; 05/15/1874	Split Call: PBWW / ROCKY FORD
10/20/2002	04/01/1874 ; 05/15/1874	Split Call: PBWW / ROCKY FORD
10/21/2002	05/15/1874	ROCKY FORD DITCH
10/22/2002	05/15/1874	ROCKY FORD DITCH
10/23/2002	05/15/1874	ROCKY FORD DITCH
10/24/2002	05/15/1874	ROCKY FORD DITCH
10/25/2002	03/07/1884	ROCKY FORD HIGHLINE
10/26/2002	03/07/1884	ROCKY FORD HIGHLINE
10/27/2002	03/07/1884	ROCKY FORD HIGHLINE
10/28/2002	04/15/1884	FORT LYON
10/29/2002	04/15/1884	FORT LYON
10/30/2002	04/15/1884	FORT LYON
10/31/2002	04/15/1884	FORT LYON

APPENDIX D

2002 Water Court Activity

TYPE	APPLICATIONS BY TYPE	TYPE OF RIGHTS DECREED IN 2002*
Augmentation	13	19
Change of Water Right	19	18
	20	1
Surface	17	33
Storage	2	7
Underground	22	34
Multiple or Other Types	53	32
Diligence	26	15
Conditional Made Absolute	4	11
Protests to Abandonment	14	0
Total	190	170

* 96 Actual Decrees issued in 2002, many contain multiple types of actions.