

DIVISION ENGINEER'S
ANNUAL REPORT
Water Division 2
1997
Including Historical Activity
Summary 1993-1996
And
Water Administration
Data Summaries

# STATE OF COLORADO

## WATER DIVISION 2 OFFICE OF THE STATE ENGINEER

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James S. Lochhead Executive Director

Hal D. Simpson State Engineer

Steven J. Witte, P.E. Division Engineer

March 11, 1998

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

Dear Hal:

On behalf of the Division 2 staff I submit an Annual Report summarizing activities 1993 through 1996 and Water Year 1997.

I would like to express sincere gratitude to the Division 2 personnel, you, and your staff for extending support in order to accomplish the responsibilities assigned during the past five years.

Respectfully submitted,

Steven J. Witte, Division Engineer

Division 2

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Cover picture provided by The Pueblo Chieftain

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## I. FORWARD and CHRONOLOGICAL SUMMARY 1993-1996

#### **Forward**

The five-year period since the last Annual Report of the Division 2 Engineer was submitted has been indeed an eventful one in the history of the Arkansas River Basin. This eventfulness is the chief reason for not having prepared such reports. Regretably, much of the detailed history of these intervening years is not easily recounted; but with apologies to those who may desire such detail an attempt to highlight some of the most significant events is set forth herein in addition to my report of the 1996-1997 water year which conforms to the conventional format.

This office has regularly submitted certain annual statistical water administration data which has been incorporated into the annual reports of the State Engineer. In order to complete the record a supplementary set of the administration data reports have been completed and are included in the appendices of this report.

#### **Historical Summary of Events 1993-1996**

Some of the more significant events which occurred since the writing of the 1992 Division Engineer's Annual Report are described below by water year in approximate chronological order.

- Mr. Joe Flory was hired as a deputy water commissioner for Water District 10 on a full-time basis.
- The findings and recommendations of the Lower Arkansas River Commission were presented to Governor Romer and the legislature on March 25, 1993. This was done in fulfillment of the charge given by the Governor's May 11, 1992 Executive Order to lead efforts to obtain water for John Martin and Great Plains Reservoirs and to accelerate the process of establishing a state park in southeastern Colorado.
- The controversy concerning the legitimacy of the April 24, 1980 resolution of the Arkansas River Compact Administration concerning an operating plan for John Martin Reservoir was escalated by the refusal of the Highland Irrigation Company and the Nine Mile Canal Company to comply with curtailment orders issued by the Division Engineer. The reader is referred to the decision of the Colorado Supreme Court in 95SA245 for a more complete description of the history and ultimate resolution of this matter.
- A combination of factors converged during the month of April, 1993 which
  resulted in a decision to order the curtailment of diversions of certain ditches
  on the Huerfano River unaccustomed to calls for the benefit of Arkansas
  mainstem ditches.

- Division 2 staff participated in negotiations directed toward the development of a "blanket" plan of augmentation proposed by the Upper Arkansas Water Conservancy District in case 92CW84.
- Due to the discovery of a previously overlooked stipulation entered in the "winter water program" case (84CW179), often referred to as the Venezia Stipulation, the Division Engineer reversed a previous administrative decision regarding storage limitations for DeWeese Reservoir.
- Mr. Eddie Taylor was reassigned from his former position as lead water commissioner in Water District 12 to the lead water commissioner position in Water District 10 beginning in June, 1993.
- Mr. Leonard Trujillo, Water Commissioner for Water District 18 and "Water Commissioner of the Year-1992" died during August of 1993.
- Mr. Chuck Roberts transferred to the State Engineer's Office leaving vacant an Assistant Division Engineer's position in March, 1994.
- Division 2 staff participated in the development of a five-year plan for the Division of Water Resources during the fall of 1993.

- Charlie Judge was reassigned from his former position as lead water commissioner in Water District 13 to the position as lead water commissioner for Water Districts 12 and 13 during December of 1993.
- Hearings were held concerning designation of the Lower Black Squirrel basin.
   The designation proposal was later withdrawn.
- Ms. Celia Solano resigned from her position as secretary for the Divsion 2 office as of January 1, 1994.
- Mr. Keith Kepler was appointed to the position of Assistant Division Engineer for Division 2 in March, 1994.
- Much of the winter of 1993-1994 and spring of 1994 was devoted to the development of the "Rules Governing the Measurement of Tributary Groundwater Diversions Located in the Arkansas River Basin" and to the development of a staffing proposal to improve upon enforcement of the 1972 "Rules and Regulations Governing the Use, Control, and Protection of Surface and Groundwater Rights Located in the Arkansas River and Its Tributaries". These efforts resulted in the adoption of "Measurement Rules" by the State Engineer in March of 1994, and the Legislature passed SB94-203 which authorized the hiring of an additional 4.5 FTE in April, 1994.

- Ms. Helen Bever resigned from her position as well commissioner on April 1, 1994.
- Bob Plese was hired as an engineering technician in March, 1994.
- Ms. Janet (Garoutte) Kuzmiak was hired temporarily as the well commissioner February of 1994 and permanently in August, 1994.
- Ms. Sue Edling transferred laterally to become the Division 2 secretary from Division 3 in April, 1994.
- Vicki Taylor's 5-year assignment funded by the City of Aurora was completed June 30, 1995.
- In July, 1994 Special Master, Arthur L. Littleworth, issued his first report to the Supreme Court of the United States in the matter of Kansas vs. Colorado, No. 105, Original, in which he recommended that the Court find that post-Compact well pumping in Colorado had violated Article IV-D of the Arkansas River Compact. Further, he recommended that the Court find that Kansas had failed to prove that operation of the Winter Water Storage Program had violated the Compact and that the Court should dismiss the Kansas claim arising from the operation of Trinidad Reservoir. The reader is referred to this report for a complete understanding of the history of the case and the basis for these recommendations.
- By executive order dated August 5, 1994 Governor Romer created the Arkansas River Coordinating Committee for the purpose of developing a response to the July, 1994 Special Master's Report. The Committee first met on September 22, 1994 and met a total of eleven times through September of 1995. This Committee was particularly effective in advising the State Engineer concerning the development of amendments to rules necessary to govern the future use of tributary groundwater. The reader is referred to the March 5, 1996 "Report to Governor Roy Romer on the Activities of the Arkansas River Coordinating Committee" for a more complete description of the Committee and its accomplishments.
- By August, 1994 it was recognized that in order to effectively accomplish well regulation in the future it was critical that a comprehensive, methodical inventory of affected wells needed to be accomplished. Summer interns, Mr. Scott Burbridge and Ms. Pricilla Thompson, developed a procedure to do this which came to be known as the "Burbridge-Thompson Method." This method, with a few modifications, was implemented by the new staff members provided by SB940-203 beginning in earnest early fall of 1994. These individuals included Ms. Ina (Trowbridge) Bernard and Messrs. Dan DiRezza, Bill Richie, Lloyd Wadleigh, and Alan Ward.

- October 1, 1994 marked the date by which all wells subject to the "Measurement Rules" were to have established a means of measuring diversions. The development of policies and procedures necessary too monitor and effect compliance required a substantial effort on the part of all involved.
- One accomplishment of which the Division 2 staff is justifiably proud is that
  of successfully hosting the most progressive meeting of the Colorado Water
  Officials in memory. The intent was to demonstrate that this organization has
  the potential to significantly promote the professional development of its
  members through self-initiated education.

- Steve Witte was awarded Manager of the Year at the State Engineer's meeting in Denver, February 8-10, 1995.
- A field office was established in LaJunta, Colorado during April, 1995 in order to provide more effective service and a more visible and accessible administrative presence among well users.
- The United State Supreme Court upheld the Special Master's July, 1994
   Report in all respects. This ruling was issued during May, 1995.
- In June, 1995, following the ruling of the United States Supreme Court, Kansas filed a motion with the Special Master seeking to enjoin all pumping of tributary groundwater within Colorado in excess of 15,000 acre feet per year.
- John Martin Reservoir spilled in July, 1995. The most recent spill prior to this
  occurred in 1987.
- In September, 1995 the State Engineer promulgated "Amended Rules and Regulations Governing the Diversion and Use of Tributary Groundwater in the Arkansas River Basin, Colorado". These were filed with the Division 2 Water Court in case 95CW211. The reader is referred to the "Amended Rules" as well as the "Statement of Basis and Purpose for a more thorough understanding of Amended Rules". Concurrently, the State Engineer filed a report to the State of Kansas entitled "The State of Colorado's Efforts to Comply with the Arkansas River Compact" dated September 29, 1995. In consideration of these efforts, the Special Master denied the Kansas motion for injunction filed in July, 1994.

- In October, 1995 Colorado stipulated with Kansas as to the depletions to usable stateline flow which had occurred during the period 1950–1985, fixing the amount at 328,505 acre feet.
- In the fall of 1995, an "off-season" project to rectify the Division 2 tabulation was begun by Joe Flory. This lengthy and detailed project involves technical research and follows this procedure: correct records of original adjudications of surface rights, document transfers, and changes to or abandonment of these rights. Once these records are corrected some of the more contemporary decrees already in the databases are being corrected. Once this process is finished decrees entered in Water Court since about 1990 will be recorded, resulting in a "ground-up" restoration of the tabulation.

- In anticipation of the increase in workload associated with the proposed "Amended Rules and Regulations Governing the Diversion and Use of Tributary Groundwater in the Arkansas River Basin, Colorado" a staffing proposal detailing the personnel requirements necessary to implement the "Amended Rules" was prepared and submitted to the State Engineer on December 27, 1995.
- Additionally, during the month of December, 1995 other needs concerning
  administrative activities related to the regulation of ground water diversions,
  including penalties for violations of water diversion restrictions, were
  identified and incorporated into draft legislation. This resulted in the
  introduction of Senate Bill (SB)96-124 which was signed into law on March
  1, 1996.
- On February 23, 1996 the State Engineer filed "Addendum No. 1 Report to the State of Kansas, the State of Colorado's Efforts to Comply with the Arkansas Compact". The reader is referred to this report for a more detailed account of the progress made since the filing of the original report dated September 29, 1995.
- The State Engineer ordered 'Amendments to Rules Governing the Measurement of Tributary Ground Water Diversions Located in the Arkansas River Basin" to become effective as of February 29, 1996. These were filed with the Division 2 Water Court in case number 94CW12. However, since no protests were filed they were approved by operation of law. Again, the reader is invited to compare the "Amended Rules" to the original version to discover the effect of these amendments.

- During April, 1996 an eight-day trial was held before Division 2 Water Court Judge, John Anderson, to hear the protests of six parties who filed objectives to the proposed "Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin, Colorado". The low number of objectors has been attributed, in large, to the efforts to gain water user support through the Arkansas River Coordinating Committee. On April 30, 1996 Judge Anderson issued his ruling, fully upholding the "Amended Rules" and settling the effective date as June 1, 1996 in order to give well owners a month to develop replacement plans.
- May, 1996 was dedicated to the review of proposed stream depletion replacement plans, establishing operational and monitoring procedures through the practice of periodic (at least monthly) meetings with representatives of well associations and others having proposed replacement plans. These have come to be referred to as "Augmentation Coordination" meetings. Efforts continued on the staffing selection process for the 9.5 FTE approved by the passage of SB 96-124.
- By June 1, 1996 essentially all replacement plans were approved and put into operation. Through foresight and fortuitousness the initial year of replacement plan operations under the "Amended Rules" went very well.
- An "Addendum No. 2 to the Report to the State of Kansas Concerning the State of Colorado's Continuing Efforts to Comply with the Arkansas River Compact" was prepared and filed by the State Engineer as of July 12, 1996. The reader is referred to this report for a more comprehensive description of Compact compliance activities that have occurred since the date of the previous report, February 23, 1996.
- By July, 1996 staffing of the positions created within the Division 2
   Engineer's office had been completed. The personnel hired included: Mr.
   Adam Adame (Eng Tech), Mr. Dennis Bagenstos (Eng Tech), Ms. Wendy
   Bogard (Admin Asst), Ms. Julia Faix (Admin Asst), Mr. Jim Marks (Eng
   Asst), Mr. Dale Straw (Eng/Phys Sci Researcher), Mr. Hans Stump (Eng
   Asst), Ms. Karen Thielbar (Appl Programmer), and Mr. Bill Tyner (Prof Eng).
   The remaining personnel authorization was distributed among existing
   permanent part-time employees.
- Having achieved substantial compliance among well owners affected by the "Amended Rules" in the areas critical to Compact compliance by the end of the irrigation season, efforts were directed toward inventory of wells in order to extend enforcement of the rules throughout the basin by the spring of 1997.

# II. <u>ACTIVITIES and ACCOMPLISHMENTS during 1997 WATER YEAR</u>

#### A. SURFACE WATER ADMINISTRATION

- The Division 2 staff administered the 1996-1997 Winter Water Storage Program during the period November 15, 1996 through March 14, 1997 pursuant to the final decree entered in case 84CW179. Due to decisions by some program participants to forego some of their entitlements under the program, it was only possible to balance the system among the entities relative to one another by taking these foregone entitlements into accounting considerations (See Appendix F). Minutes of the October 28, 1997 meeting of the Winter Water Storage Program Board of Trustees have been prepared and circulated by Chairman, Mr. Steve Arveschoug, in a memorandum dated November 3, 1997. These minutes include information regarding the future exercise of non-Program participant water rights.
- The Division Engineer for Division 2 acts as the Operations Secretary to the Arkansas River Compact Administration. In that capacity, the Engineer is charged with conducting the operations of John Martin Reservoir during each Compact year (November 1 through October 31) pursuant to the April 24, 1980 "Resolution Concerning an Operating Plan for John Martin Reservoir" (as subsequently amended) and submitting an annual report of those operations to the administration. In Water Year 1997, the Annual Report for 1996 was submitted to the Administration of its regular meeting on December 10, 1996. The Annual Report for 1997 was submitted to the Administration at its regular meeting on December 9, 1997.

Additionally, an Offset Account in John Martin Reservoir was authorized this year by the "Resolution Concerning an Offset Account in John Martin Reservoir for Colorado Pumping" dated March 17, 1997. Further discussion of the Offset Account will occur later in this report. Paragraph 11 of the Resolution requires a separate report summarizing the operations conducted using the Offset Account to be filed by the Colorado State Engineer. The first "Report of the Colorado State Engineer Concerning Accounting of the Operations of an Offset Account in John Martin Reservoir for Colorado Pumping – 1997" was submitted to the Operations Committee of the Arkansas River Compact Administration on December 9, 1997. These reports are on file with the Arkansas River Compact Administration, the State Engineer's Office, the Division 2 Engineer's Office, and the Colorado Water Conservation Board.

- Due to a reoccurrence of circumstances on the Huerfano river system, similar to those experiences in 1993, it became necessary for the Division Engineer to formulate a policy concerning administration. This policy has been documented in a letter dated June 5, 1997 addressed to the Welton Land and Water (Ditch) Company and the Huerfano Cucharas Irrigation (Ditch and Reservoir) Company and further clarified by a letter dated June 25, 1997 addressed to the same parties.
- Without going into specifics, it should be noted for the record that a
  type of complaint that this office has been called upon to address with
  increasing frequency are those related to small, water impoundment
  structures.

# B. <u>ADMINISTRATION of GROUND WATER USE and MEASUREMENT RULES</u>

### 1. Inventory of Wells and Enforcement in the Rule 5 area.

The Rule 5 area is the remainder of Division 2 outside of the Arkansas River valley downstream of Pueblo and outside of Fountain Creek. Division II continued to implement the Groundwater Measurement and Use Rules during the 1997 irrigation year, focusing on the area subject to Rule 5 of the 'Amended Use Rules.' This effort involved the inventory of 919 wells during the year and the issuance of approximately 2000 orders as itemized in Appendix G 1 and G 2. The objective of this work was to bring the Rule 5 area wells into compliance with the Rules.

The issuance of orders represents but a portion of the work involved, since orders prompt phone calls, measurement forms, forms in response to Rule 13 of the 'Amended Use Rules', requests for variance from the measurement rules, and ultimately requests for approval of a substitute water supply plan or 'Rule 14' plan.

#### 2. Horse Creek resolution.

The water users on Horse Creek had protested the Amended Use Rules in Division II case number 95CW211. Due to limited and separate issues between the Horse Creek Water Users Association, the Box Springs Canal and Reservoir Co., and the State Engineer and due to the isolated geographic area involved, the Water Court bifurcated the Horse Creek issue and set a separate trial date of October 15, 1996. The Rules were not

enforced in the subject area pending a decision. Rather than litigate, the parties agreed to mediation. That mediation was led by Jody Grantham and Steve Vandiver of the Division of Water Resources. The result of the mediation was a January 29, 1997 settlement agreement that involved a CWCB loan to HCWUA and a purchase of Box Springs shares by HCWUA. A plan for augmentation was developed and submitted to the Water Court in 97CW52.

### 3. Proctor protest to the Use and Measurement Rules.

In accordance with the agreement reached with the Proctors (in WD 13) in response to their statement of opposition to the Groundwater Use Rules in 95CW211, this office prepared a final draft engineering report on how they might augment for their wells, including an analysis of storage requirements. That final draft report has been presented to the Proctors.

# 4. Public information meetings concerning the Measurement and Use Rules.

The following public information meetings regarding implementation of the Measurement and Use Rules within the area subject to Rule 5 were held:

Westcliffe, CO – Div. 2 personnel attended a meeting of the Wet Mountain Water users in September, 1996 and presented information about the Groundwater Measurement and Use Rules in addition to answering questions about surface water administration.

Leadville, CO – A meeting was scheduled for Nov. 4, 1996 and advertised in Leadville as the inventory was undertaken in that area. It was attended by four persons from DWR and, unfortunately only about four water users. The inventory and the Rules were explained.

Adobe Creek – Sponsored by CWPDA, Div. II water officials attended a meeting in June 1997 and presented information about the Measurement and Use Rules as they pertain to the Rule 5 area. Adobe Creek was an area of focus for this meeting.

Trinidad, CO – Div. II personnel were requested to attend a meeting that was held with WD 19 Groundwater users on July 29, 1997. At that meeting, the Rules were discussed and mechanisms for augmenting wells were addressed. Subsequently, on October 29, 1997, DWR staff met with a Colorado Springs attorney who had a stated interest in putting together an augmentation plan for WD 19 well users.

Cotopaxi, CO – Div. II personnel made a presentation and answered questions about the measurement and use rules to a group of about 200 interested persons on Aug. 5, 1997.

Upper Arkansas Water Conservancy District – in December, 1997, Div. 2 officials met with UAWCD to explain the various types of replacement plans, including substitute water supply plans and Rule 14 plans.

#### 5. Groundwater operations

Groundwater operations involved replacement plan review, determination of monthly pumping for wells subject to the rules, operation of the accounting model to determine the time-lagged effect of well depletions on the River, coordination of replacement releases, and field enforcement to assure that only wells with an approved replacement source were pumping.

Replacement plans submitted pursuant to Rule 14 of the 'Amended Use Rules are due March 1 of each year, with the operational year for such plans beginning April 1. In 1997, Division 2 reviewed 15 Rule 14 plans which ultimately included 2059 wells. The plan review included screening for non-qualifying wells, review and analysis of estimated well pumping and resulting time lagged depletions, and review and analysis of proposed replacement sources.

In addition to the review of Rule 14 plans, Division 2 staff advised staff of the State Engineer's Office regarding Substitute Water Supply plans. Implementation of the Rules has significantly increased the number of Substitute Water Supply plans, since new uses and unadjudicated changes of use are prevented from participating in the Rule 14 plans.

A summary of the operations of 1996 Rule 14 plans was prepared and published in the Third Addendum Report to the Special Master in Kansas v. Colorado.

Monthly operation of replacement plans involves several steps, including determination of monthly pumping, calculation of time lagged depletions, and coordination of releases of replacement water. Monthly pumping is determined either based upon using power data or from user supplied information. For example, in September 1997 we received user-supplied data for 610 wells, of which 477 used totalizing flow meters and 133 used slave meters. We used electrical power data supplied from the power companies for 1162 wells. It is noted that the number of wells reporting through this system is less than the number of wells in plans since some wells in plans are inactive.

The monthly power data for each well in each plan is summed into the several identified user groups, and that data is entered into the groundwater accounting model to determine the lagged depletion associated with a particular plan. That information is then provided to the associations. The Division II augmentation coordinator then works with the association representative to determine the appropriate sources of augmentation water from the resources the association may have available. During the summer months, a monthly meeting is held which is attended by representatives from Div. 2, the three large groundwater associations, and Southeast Water Conservancy District to coordinate augmentation operations.

A major factor in Division II's ability to operate wells in accordance with the Rules in a timely fashion has been our dedication to maintaining and improving the quality of data we maintain about wells. To this end, we have put an extensive effort into maintaining the quality of individual data and have achieved a commendable level of success in reorganizing our data systems to make them more efficient and less redundant. We were unable to reach all of the goals we had set for ourselves this year due to the vacancy in the computer programmer position.

Enforcement to assure that those who do not have an approved source of replacement water are not pumping and that those who are in a replacement plan do not overpump involves several different missions through the course of the year. Beginning April 1, after the plan year begins, we have tagged wells (placed field orders at the well site) which may not pump during the season according to several priorities. Wells which do not have a source of replacement but are physically able to pump are the first priority. Wells which are on record as having no pump or being disconnected from power are a lower priority. As the year progresses, we periodically observe the wells that may not pump to assure compliance.

As the year progresses, we monitored the usage of individual wells in relation to the amount of water purchased and provided a monthly report of overpumpers to each association. Overpumping problems not immediately addressed by the associations were dealt with by field tagging the well.

#### 6. Measurement Quality Control

Well Tester training was held during the week of May 12, 1997. Previously approved testers were required to attend a half-day class, which provided information and direction in identified areas of need. New testers were given a full three-day course in all aspects of well measurement.

Measurement Method Quality Control Monitoring. Div. II personnel conducted follow-up tests on 43 wells that had previously had a measurement technique determined by independent well testers. 29 of these tests were to verify Power Coefficients and 14 of these tests were to verify totalizing flow meter reports.

Power Coefficient study in cooperation with the USGS. Div. II personnel did the fieldwork associated with the USGS study to determine the accuracy of the Power Coefficient method of well measurement as compared to the totalizing flow meter method. Although delays resulted in the sites to be equipped with new totalizing flow meters not being ready until the end of the irrigation season, we made 126 visits to the 46 sites involved in this study during 1997.

# 7. Data Coordination meetings with Groundwater Associations

SB 96-124 provided \$ 50,000 for grants to water users' groups to purchase systems and coordinate operations of data processing systems to facilitate handling of well pumping data. We met with representatives of the three major groundwater associations that provide regional coverage on Dec. 18, 1996 and March 13, 1997. One result of these meetings was the authorization of grants totaling \$13,000 for each of the three major associations. Each of the three major associations was approved for \$ 4000 to participate in a series of meetings to discuss data transfer mechanisms plus \$ 9000 for their own information systems development.

#### C. <u>DEVELOPMENTS in KANSAS vs. COLORADO</u>

• As previously noted, an "Offset Account in John Martin Reservoir for Colorado Pumping" was created and placed in operation in 1997. This occurred after a period of intense negotiations began in earnest at the December, 1996 meeting of the Arkansas River Compact Administration. The Administration and the Chief of Engineers of the U.S. Corps of Engineers approved the necessary resolution creating the Offset Account effective as of March 17, 1997. Additionally, a corresponding stipulation was reached between the states and approved by the Special Master on April 3, 1997.

The Offset Account assists in facilitating Compact compliance because a method does not exist that can accurately determine, at least on a monthly basis, depletions to usable stateline flows caused by post-Compact well pumping in Colorado. The advantage of the Offset Account is that water can be stored in the account by well owners in Colorado and released at whatever rates and times Kansas desires.

- In response to concerns expressed by Kansas related to the accuracy of the
  power conversion coefficient method of determining quantities of ground
  water pumped as the method accepted by Colorado's amended measurement
  rules, a cooperative study of the method was initiated in conjunction with the
  United States Geological Survey. This study is intended to continue over a 3year period.
- On July 21, 1997 "Addendum No. 3 to the Report to the State of Kansas the State of Colorado's Continuing Efforts to Comply with the Arkansas River Compact" was submitted. The reader is referred to this report which, in general, describes Colorado's Compact compliance efforts since the most recent, previous report was filed July 12, 1996. This report also includes statistics concerning enforcement of and compliance with ground water use and measurement rules, summary reports for 1996 replacement plans, as well as a statistical summary of 1997 replacement plans and copies of letters approving those replacement plans. State Engineer, Hal Simpson, was deposed and later provided testimony to the Speical Master concerning this report and two boxes of subpoened documents in September, 1997.
- Subsequent to the September, 1997 hearing before the Special Master, personnel from this office hosted an on-site inspection tour of many of the facilities involved in replacement plans by Kansas' officials, consultants, and attorneys.
- Finally, in September, 1997 Special Master Arthur L. Littleworth issued his Second Report to the United States Supreme Court, including

recommendations. Of these recommendations the first five are of the greatest immediate relevance to the activities of the Division 2 office:

- 1. That the Court approve my Order of September 19, 1995 denying Kansas' Motion for Injunction.
- 2. That the Court approve the Stipulation of the states quantifying depletions to usable Stateline flow caused by postcompact pumping in Colorado for the period 1950-85 in the amount of 328,505 acre-feet.
- 3. That depletions of usable Stateline flow for the 1986-94 period be determined to be 91,565 acre-feet.
- 4. That Colorado's efforts to bring the state into current compliance with its compact obligations have been sufficient to preclude at this point in time the need for interim injunctive relief, or to require changes in Colorado's Measurement Rules or Use Rules; that such Colorado activities continue to be closely monitored through the remaining trial proceedings of this case; that compact compliance for 1996 and subsequent years be determined; and that any depletions for 1995 also be determined.
- 5. That the Court approve the Stipulation of the states, dated March 17, 1997 and approved by me on April 3, 1997, which together with the Resolution of the Arkansas River Compact Administration, establishes an Offset Account in John Martin Reservoir for the storage and delivery of replacement water to Kansas to offset depletions of usable Stateline flow.

With respect to the Special Master's 4<sup>th</sup> Recommendation, it was gratifying to those of us in the Division 2 office that the Master had previously found: "These reports (concerning Colorado's compliance efforts), and the extensive testimony of the Colorado State Engineer and others shows a most impressive record in beginning to control postcompact pumping." and "...given the ineffectual and frustrating history of Colorado's previous efforts to regulate wells, the State's current progress is quite remarkable."

The sixth recommendation, "That evidence be received on a suitable remedy for postcompact violations, whether such remedy be in water or in money." summarizes the essence of the main issue yet to be resolved.

The U.S. Supreme Court over-ruled without prejudice all exceptions to the Special Master's Second Report in January 1, 1998.

#### D. <u>LEGAL and LITIGATION</u>

One hundred and seventy three cases were filed with the Water Court in the 1997 calendar year. Eighty five of these filings however were filed by the State and Division Engineers as complaints for violation of rules and regulations regarding underground water use in the Arkansas River Basin. The next most abundant type of filing was for seventeen cases involving augmentation plans. The majority of these plans are located in El Paso County and rely upon the nontributary and not-nontributary waters of the Denver Basin aquifers. A summary of Water Court activity can be found in the appendix section of this report. Several other notable legal events occurred during the year as a result of cases filed in previous years. These events are outlined below.

- The United States Forest Service (79CW176) filed in 1979 for many instream reserved flow rights for channel maintenance and other uses in the Pike and San Isabel National Forests. Following the denial of a similar filing in Division One, a motion was made to dismiss this case in 1994. Since that time negotiations have been continuing on settlement possibilities between the Forest Service and the State and local water users.
- The Purgatoire River Water Conservancy District was found in contempt
  of court for failing to supply water according to certain terms of a previous
  lawsuit and decree filed by one of it's own constituent ditch companies.
  The district was found in contempt and ordered to pay all legal costs and
  put under notice by the court of substantial fines in the future for any
  further violations.
- Several division staff members were disposed in preparation for trial in a
  contested plan for augmentation filing by the Lea Vista Corporation. This
  filing is intended to allow the augmentation of future condominiums by
  transporting consumptive use water from one drainage sub-basin to
  another, in part through an underground aquifer. Trial is currently
  scheduled for May 1998.
- In 92CV127 (Tatum v. Basin Resources) a lawsuit was filed in the County of Las Animas District Court to settle a long standing dispute between an individual water user and a mining company on a contractual trade of water rights and other issues. This contract would have involved a change of administration equivalent to a change of water right yet was never presented before the Water Court and so was not honored by the Water Commissioner. The lawsuit was adjudicated, however the pertinent change of water right issues appear to remain unresolved.

The State Engineer was called by the Water Court itself in another water user dispute (96CW123 - Beaver Lakes Estate v. Moyers) regarding the adequacy of Substitute Water Supply Plans in protecting other water rights against injury and the adequacy of legal notice in the approval of these plans.

#### E. TABULATION

In the spring of 1997, a natural resources law school student, Kara Veitch was hired on a temporary basis at the Intern level for several months to assist in the project. This winter (1997-1998) three Water Commissioners (Dave Jones, Steve Trexel, and Rich Snyder) and Administrative Assistant, Wendy Bogard, have participated thus keeping the educational opportunity inherent in the project "in-house."

To date, more than 19,000 of approximately 22,000 records have been corrected or added to the tabulation databases.

#### F. SAFETY of DAMS

- 1. Balman Reservoir located in WD 13, north of Westcliffe, was control breached under full reservoir conditions in the fall of 1996 and performed satisfactorily with far above average spring runoff flowing through the constructed breach.
- 2. Monument Dam, located in WD 10, near the town of Monument was given a suspense date of August 1, 1998 to have an engineering evaluation and report which would address the numerous dam safety deficiencies, repair alternatives and possible funding sources for the repairs. There is no storage right for this reservoir and the interested parties were informed that evaporation would be charged against any future storage of water. The term interested parties is used because ownership and maintenance responsibility of the dam is in question. The need for a permanent augmentation plan was discussed and legislation has been introduced which would exempt the reservoir from evaporative depletions.
- 3. Two Buttes Dam, located in WD 67, north of the town of Springfield, stored water above it's restricted level due to a large storm occurring over the basin above the reservoir. The reservoir had been dry or nearly dry for a number of years and there was a large local contingent of the population which was adamant about leaving every drop of water in the reservoir and signed petitions to this effect and faxed them directly to the governor. Releasing water from the reservoir required the presence of

the Baca County Commissioners and the Regional Manager for the Division of Wildlife to keep local sentiment from interfering with lowering of the reservoir level.

- 4. An out of state tourist was hiking in the Leadville area and noticed a dam on the very upper reaches of Empire Gulch was being overtopped by snowmelt. He contacted the DWR Denver office and informed them of the location of the dam and what was occurring as he was leaving the state. A check of the dams database found no dam at the described location but the USGS topographic map indicated one called Empire Reservoir at almost 12,000 feet in elevation. Access to the site was very difficult but after several attempts, the dam was located, and found to have been overtopped and had extensive seepage flowing around the inoperable outlet. Many houses located adjacent to Empire Creek were at risk, in the event the dam failed. A trip to the county courthouse determined that the owner lived in Leadville but after contacting him and explaining the situation, he refused to take action to prevent the failure of the dam. It was necessary for the State Engineer to take control and perform a controlled breach. It would have been nearly impossible to mobilize large construction equipment, normally used to perform the necessary work, to the remote and inaccessible dam site, so, an innovative idea was collectively arrived at that would use prison inmates from the nearby Buena Vista Correctional Facility. Picks and shovels and good old fashioned manual labor was used to successfully perform the controlled breach and prevent a catastrophic dam failure.
- 5. Plans and specifications were approved for Horseshoe Dam, WD 16, west of Walsenburg, to replace the outlet, install a toe drain system, install new erosion protection on the upstream slope and improve the embankment stability by flattening the downstream slope. Estimated cost of the repairs is 1.3 million dollars with construction to begin in the fall of 1998. The reservoir storage is currently restricted to 10 feet below the primary spillway.
- 6. Construction of required safety improvements to Brush Hollow Dam, WD 12, west of Penrose was completed and included an outlet replacement, new spillway, flattening of the upstream slope and new erosion protection on the upstream slope. The final construction cost was 1.3 million dollars.
- 7. Pueblo Dam was determined to have a dam safety deficiency by the Bureau of Reclamation and storage is currently restricted due to the identified problem. The sandstone foundation of the concrete center section of the dam was found to have very thin seams of shale, that when

saturated, acted as a lubricant between rock layers in the foundation which would allow the dam to slide at higher storage levels. Repair alternatives are currently under study and it is estimated that repairs could cost as much as 38 million dollars and take several years to complete.

8. Intensive subdivision development in and around the City of Colorado Springs has required the re-evaluation of the hazard classification of the area dams. Many previously low hazard dams will be upgraded to moderate and high hazard. There are currently 110 jurisdictional size dams in the vicinity.

#### G. ORGANIZATION

#### 1. Office Relocation

Division 2 increased its staff by 9.5 FTE during 1996-97. Between the increase in staff and difficulties with expansion of the office at the current location, the Division 2 office in Pueblo was relocated from 219 West Fifth Street to 310 East Abriendo, in April, 1997. Through the efforts of the office staff and the Department of Corrections one week was spent moving the office. The move was accomplished with very few "catastrophes" and I would like to extend my appreciation to everyone in exhibiting patience and thoughtfulness to others during the lengthy planning and moving process we had to endure before our relocation process was complete.

### 2. Agency Meetings and Initiatives

General Agency Staff Meetings

a. Steve Witte, Division Engineer; Steve Kastner, Assistant Division Engineer (Outstanding Professional of the Year for 1996); Keith Kepler, Assistant Division Engineer; and Sue Edling, Administrative Assistant (Support Staff of the Year for 1996), attended the State Engineer's Spring Meeting in Denver March 4-6, 1997.

Steve Witte, Keith Kepler, and Steve Kastner attended the State Engineer's Fall Meeting in Glenwood Springs on September 9-11, 1997.

b. <u>Division 2 General Staff Meetings - 1997</u>
The Spring General Staff Meeting was held May 21, 1997 at Cornell's Country Café. With relocation of the Pueblo office finally completed, efforts to concentrate on all the priorities for the upcoming water year was discussed and decided.

The Fall General Staff Meeting was held October 22 and 23, 1997 at the Ramada Inn in Pueblo. This was a 2-day meeting in order to discuss Division 2 issues and spend one day on the State Engineer's new Mission Statement. The 1997 Water Commissioner of the Year commendation was awarded to Charlie Judge.

- c. <u>Division 2 Monthly Staff Meetings</u>

  Beginning on June 15, 1994 Division 2 initiated monthly staff meetings. These meetings have been an excellent communication vehicle for keeping office and field staff informed on current issues.
- d. Senior Staff Information Systems/Winter Work Schedule
  Planning Retreat
  The Division 2 Senior Staff held a long range
  planning session on August 27, 1997. They were invited
  to a private retreat by Sue Edling who was hostess at her
  her home in Canon City. The morning session was used
  to identify objectives; the afternoon session was devoted
  to personnel development.
- e. Employee Council Participation
  In 1997 the Employee Council conducted the fourth of five annual employee satisfaction surveys of Water Resources personnel. While there was less dramatic improvement in employee satisfaction than in previous years the trend was still upwards with a 34% increase in employee satisfaction over the initial baseline survey conducted in 1993.

As in past years, most Division 2 employee concerns centered on compensation. There is a great deal of concern regarding static benefits, the lack of additional mileage reimbursement and especially the red lining of the tech positions. Nearly all employees stated that these factors are having a negative effect on their employment morale.

Doug Brgoch, Water Commissioner, Water District 16, is The Division 2 representative to the Division of Water Resources Employee Council. He has done an outstanding job as our representative.

- f. 1997 Annual Agency Picnic Held in Division 2
  Division 2 hosted the Annual Employee Picnic funded by
  DWR employee picnic designated funds through the efforts
  of Hal Simpson on August 2, 1997 at the Pueblo Reservoir
  and Dam. Approximately 110 people attended and all
  Divisions were represented. Fun was had by all
  participating in boating, water skiing on the reservoir,
  biking on the river trails, and enjoyment of the food at the
  picnic shelter.
- g. Technician and Assistant Class Description Committee
  A committee was formed this year to produce supplemental
  Class Descriptions detailing more specifically the work and
  responsibilities of certain Division of Water Resource
  personnel. The intent is that these supplements will be
  used by both the Department of Personnel and the Division
  of Water Resources to more equitably classify technician
  and assistant class personnel. Steve Kastner serves on this
  committee.
- h. <u>Mission Statement Development</u>

A Leadership Retreat for Division Engineers and Senior Staff members from the State Engineer's Office was hosted by Hal Simpson, State Engineer, on January 6-7, 1997 in Canon City. As a result of this retreat and the principlecentered leadership training sessions, Hal initiated plans for development of a new Belief and Mission Statement for the Division of Water Resources. Hal assigned Jody Grantham to coordinate the project. Jody requested several DWR staff members to serve on a Mission Development Team; Sue Edling was one of those asked to participate. Hal placed the new Belief and Mission Statement as a top priority for 1997. Division 2 had a number of staff meetings in Pueblo and met with field staff in central locations during the fall months prior to the Fall General Staff Meeting in order to be prepared for active participation at the Fall meeting. The Belief and Mission Statement was completed on target date and seemed to be well received by the Division of Water Resources staff throughout the state.

#### 3. Training Opportunities

a. Reorganization of Training Coordinator Responsibilities and Allocation Process for Training Funds

It is the desire of Division 2 to encourage and support continuing education (training) for employees for the purposes of improving employee performance, increasing job satisfaction, increasing employee confidence and competence, and creating a greater understanding of the full range of duties of the Division of Water Resources. Continuing education is an important vehicle to achieving greater communication among employees, empowerment of our staff, and development of trusting work relationships.

In order to better achieve these objectives, Division 2 revised the Training Program in 1997 with Wendy Bogard as the Training Coordinator. Wendy, with assistance from Keith Kepler and Steve Witte, developed a set of guidelines, circulated a questionnaire to Division 2 staff, formed a Continuing Education Committee, began holding regular meetings, designed a formal request for training funds, established deadlines for applications, organized trainers and speakers, made room arrangements and all the other details necessary to conduct formal training. \$1,000 was added to the training funds from the Division 2 operating budget which enabled the Committee to expand the training offered. Wendy reports all Division 2 training activities to Betty Dyce who is the Coordinator in the State Engineer's Office and is the person who gives final approval for training funds and how they are used.

The Division 2 staff has been involved in a variety of training and educational programs. These programs include the Lessons in Leadership Workshops attended by Steve Witte, the SECWCD Upper Arkansas Tour, the Colorado Water Workshop in Gunnison attended by Steve Witte, the Customer Service Training Workshop in Denver attended by Dale Straw, Sue Edling, and Wendy Bogard, the Fry-Ark Tour sponsored by the city of Colorado Springs attended by Joe Flory, Bill Tyner and Dale Straw, Access computer classes at Pueblo Community College, Excel and Microsoft Office computer classes, Ultrasonic Meter Seminar, and several in-house sponsored training sessions.

Bill Tyner, Dale Straw and Joe Flory participated in a tour of portions of the Fryingpan-Arkansas Project facilities August 14 and 15, 1997. Facilities visited included Pueblo Reservoir, Twin and Turqoise Lakes, Mt. Elbert power plant, and Boustead tunnel outlet on the east slope. West slope facilities visited included portions of the Northside and Southside collection systems and the western portal of Boustead Tunnel.

#### b. <u>COFRS Decentralization</u>

Due to Wendy Bogard's expertise in accounting Division 2 requested and received permission to become a pilot project in processing payments for bills in the Division offices. This decentralization procedure was successful and it was then extended to the other Divisions.

c. Administrative Assistants Annual Meeting

The 1997 Annual Meeting of the Division Administrative Assistants was held in Division 2 on August 19<sup>th</sup>, 20<sup>th</sup>, and 21<sup>st</sup>. Hostesses for the event were Sue Edling, Wendy Bogard, and Julia Faix. Meetings and activities took place at the Pueblo Best Western Inn. All seven Division Administrative Assistants attended. Guests invited from the State Engineer's Office were: Jan Dermer, Betty Dyce, Linda Jepson, Carol Quintana, and Jo Ann Thomas. Jody Grantham conducted a workshop on the new Belief and Mission Statement. Jan Dermer's retirement party was held on the Prairie Princess Yacht. Business meeting discussions included reports on Division activities, decentralization to the Divisions on COFRS payment procedures, transition of duties from Jan Dermer to Linda Jepson, promotions, and Jody's presentation.

#### d. Hydro Training

The training aspect of the job has always been a part of doing hydrographic work for the State of Colorado. Hydrographer training has several forms and formats. The first is on-the-job. In the field and in the office this consists of instructions to improve discharge measurements, equipment maintenance and repair, operation of new types of satellite monitoring equipment, construction of structures, working records and operating computers. A second is within the Division of Water Resources. This

includes personnel from the Denver hydrography section to instruct Division 2 hydrographers as well as a large number of subjects at the annual hydrographic meetings, including the one held in September, 1997. Training has also been received in other types of forums.

#### e. <u>FLSA Training</u>

Reorganization of supervisory responsibilities resulted from the increase in FTE in Division 2. The first meeting to clarify supervisor responsibilities was held January 15, 1997. These meetings of supervisors have improved communication between supervisors and their staff(s) as well as between the Division Engineer and his supervisors. Understanding the priorities and responsibilities of other areas in the Division resulted in a sharing of overtime allotments, cross-training on top priority projects, and consideration of deadlines throughout the Division. Supervisors were charged with the responsibility of distributing and tracking their overtime allotments as well as controlling any comp time compensation so that it is taken during the 6-month limitation.

### f. Colorado Water Officials Association

A number of Division 2 staff attended the annual meeting held in Grand Junction on October 3<sup>rd</sup> and 4<sup>th</sup>, 1997. The event was very educational and those who attended gained an excellent insight into water administration and the problems associated with the Colorado River Basin. Eddie Taylor, Water Commissioner in District 10, participated with others in Water Resources to create a "get acquainted with DWR" he public as an educational tool.

### 4. <u>Personnel Changes</u>

Karen Thielbar, Computer Analyst, resigned 8/15/97 to accept a position with the Department of Revenue – Lottery Division.

Tom Kelly, part-time Water Commissioner, Water District 11, retired 9/17/97.

Garrett Jackson was hired as a Dam Inspector October 15, 1997. Garrett will be responsible for the dams in the Colorado Springs area as well as dam design review responsibilities for the State Engineer's Office.

Alan Ward, EPST I, resigned 11/13/97 to accept a position with the Pueblo Board of Water Works.

Walt Clotworthy, part-time Water Commissioner, Water District 11, retired December 31, 1997 but will return as a permanent part-time Water Commissioner during the summer in Water District 11.

#### H. INVOLVEMENT in the WATER USER COMMUNITY

 Division 2 staff members attend numerous meetings of organizations held on a periodic basis in order to maintain working relationships with our constituency. These may be grouped in several categories:

Groundwater Associations: e.g, Arkansas Groundwater Users Association, Colorado Water Protective and Development Association, Lower Arkansas Water Management Association.

<u>Conservancy Districts</u>; e.g., Southeastern Colorado Water Conservancy District, Purgatoire Water Conservancy District, Upper Arkansas Water Conservancy District.

<u>Ditch Companies and Water User Associations</u>; e.g., Amity, Ft. Lyon, Upper Water District 10 Water Users Association, Wet Mountain Valley Water Users Association.

#### Arkansas River Compact Administration

<u>Arkansas River Basin Technical Group</u> (this is a newly formed alliance consisting of a variety of governmental agencies that have agreed to convene on a quarterly basis to share information concerning their water related programs.)

Additionally, there have been several special events whose purpose have been general water related education:

Arkansas River Forum (January, 1997 – Pueblo)

Citizens Water Law Seminar (April, 1997 – Buena Vista)

<u>Colorado Water Conservation Board Tour – Arkansas Valley</u> (May, 1997)

Pueblo Leadership Seminar (May, 1997 - Pueblo)

Finally, as was mentioned in the most recent Annual Report of the Division 2 Engineer (1992) this office continues to participate in the development of a Water Needs Assessment through a mulit-agency Memorandum of Understanding between the U. S. Bureau of Land Management, the U. S. Bureau of Reclamation, the U. S. Forest Service, and the Colorado Department of Natural Resources which is attempting to define the needs associated with various nontraditional water related activities.

#### III. OBJECTIVES for 1998

# A. <u>CONDUCT APPROPRIATE REGULATION AND ACCOUNTING</u> <u>OF SURFACE WATER OPERATIONS</u>

- Correctly address distribution and accounting under unusual water supply conditions (i.e., John Martin spill).
- Refine implementation of Smith/Reid Agreement

# B. <u>CONTINUE to IMPROVE and REFINE GROUND WATER REGULATION</u>

- Monitor effect of previously approved replacement plans and revise review and implementation procedures accordingly.
- Collect data to meet obligations associated with power consumption coefficient method evaluation study and monitor validity of coefficient determinations.
- Improve monitoring of operations and accounting for decreed plans for augmentation.

- Refine procedures to improve compliance of wells subject to measurement rules and Rule 5 of the Use Rules.
- C. PURSUE REVIEW of DAM SAFETY HAZARD CLASSIFICATIONS in WATER DISTRICT 10
- D. <u>COMPLETE PROCESS of STAFFING VACANT POSITIONS</u>
- E. CONTINUE to IMPROVE WATER RIGHTS TABULATION and IMPLEMENT PLANS to DEVELOP INFORMATION SYSTEMS
- F. CONTINUE to DEVELOP PERSONNEL THROUGH
  AGGRESSIVE CONTINUING EDUCATION PROGRAM
- G. BEGIN to IMPLEMENT PAY-FOR-PERFORMANCE
- H. PARTICIPATE in DEVELOPMENT of DIVISION of WATER RESOURCES LONG RANGE GOALS
- IV. APPENDICES 1993 1997
- V. APPENDICES 1998

# APPENDIX A

TRANSMOUNTAIN DIVERSIONS 1997-1993

		RECIPIENT					SOURCE	
	Mark and the second second		5 - YEAR AVERAC	E	CURRENT YE	AR		
	NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WDWD	STREAM
	COLUMBINE DITCH	ARKANSAS RIVER	2113	104	1730	111		EAGLE RIVER
	EWING DITCH	TENNESSEE CREEK	1325	131	1350	126		EAGLE RIVER
	WURTZ DITCH	TENNESSEE CREEK	3746	125	4180	120		EAGLE RIVER
		LAKE FORK CREEK	28838	94	37547	96		EAGLE RIVER
		LAKE FORK CREEK	70611	365	79439	365		FRYINGPAN RIVER
11	<b>BUSK-IVANHOE TUNNEL</b>	LAKE FORK CREEK	4380	233	4535	336		FRYINGPAN RIVER
11	TWIN LAKES TUNNEL	LAKE CREEK	41590	365	35437	365	5/38	ROARING FORK RIVE
11	LARKSPUR DITCH	SOUTH ARKANSAS RIVER	163	104	185	89	4/28	TOMICHI CREEK
79	MEDANO DITCH	HUERFANO RIVER	790	55	587	54	3/25	MEDANO CREEK
79	HUDSON DITCH	HUERFANO RIVER	66	26	185	54	3/35	MEDANO CREEK
							0,00	MEDI WIO OILLI
	TOTAL:				165175			

	SOURCE						
	333.,02						
WD/WD NAME OF DIVERSION STRE		ACRE FEET	DAYS	ACRE FEET	DAYS	WD	STREAM
5/36/37 STEVENS-LEITER WELL   BLUE	EAGLE RIVERS	250	357	324	365		GROUNDWATER
(AKA ARKANSAS WELL)							CHOCKBUATER
TOTAL:				324			

	REC	CIPIENT					SOURCE
		10 - YEAR AVERA	GE	CURRENT YE	AR		
WD NAME OF DIVER		ACRE FEET	DAYS	ACRE FEET	DAYS	WDWD	STREAM
11 COLUMBINE DIT	CH   ARKANSAS RIVER	1721	98	2499	113		EAGLE RIVER
11 EWING DITCH	TENNESSEE CREEK	1058	138	1440	145		EAGLE RIVER
11 WURTZ DITCH	TENNESSEE CREEK	2319	103	4209	92		EAGLE RIVER
11 HOMESTAKE TU		25864	113	19503	110		EAGLE RIVER
11 BOUSTEAD TUN	NEL LAKE FORK CREEK	49334	255	38492	365	5/38	FRYINGPAN RIVER
	TUNNEL LAKE FORK CREEK	4488	187	2450	365	5/38	FRYINGPAN RIVER
11 TWIN LAKES TU	NNEL LAKE CREEK	40685	365	33599	365	5/38	ROARING FORK RIVE
11 LARKSPUR DITC	CH   SOUTH ARKANSAS RIV	VER 117	79	56	93	4/28	TOMICHI CREEK
79 MEDANO DITCH	HUERFANO RIVER	1061	62	299	61		MEDANO CREEK
79 HUDSON DITCH	HUERFANO RIVER	139	45	93	61		MEDANO CREEK
TOTAL:				102640			

	SOURCE					
		10 - YEAR AVERA	CURRENT YE	AR		
WD/WD NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WDISTREAM
5/36/37 STEVENS-LEITER WELL	BLUE/EAGLE RIVERS	213	338	332	365	11 GROUNDWATER
(AKA ARKANSAS WELL)						
TOTAL:				332		



		RECIPIEN					SOURCE	
			10 - YEAR AVERA	GE	CURRENT YE	AR		
		STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WDWD	STREAM
	COLUMBINE DITCH	ARKANSAS RIVER	1563	102	2390	61		EAGLE RIVER
11	EWING DITCH	TENNESSEE CREEK	1022	131	1410	70		EAGLE RIVER
11	WURTZ DITCH	TENNESSEE CREEK	2283	105	4241	67		EAGLE RIVER
11	HOMESTAKE TUNNEL	LAKE FORK CREEK	25607	111	23505	82		EAGLE RIVER
11	BOUSTEAD TUNNEL	LAKE FORK CREEK	48660	227	91300	365		FRYINGPAN RIVER
11	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4734	170	5872	132	5/38	FRYINGPAN RIVER
11	TWIN LAKES TUNNEL	LAKE CREEK	42385	355	33120	365	5/38	ROARING FORK RIVE
11	LARKSPUR DITCH	SOUTH ARKANSAS RIVER	135	80	276	99		TOMICHI CREEK
79	MEDANO DITCH	HUERFANO RIVER	1050	59	1137	44		MEDANO CREEK
79	HUDSON DITCH	HUERFANO RIVER	141	42	0	0		MEDANO CREEK
	TOTAL:				163251			

Sense was a sense of the sense	SOURCE						
		10 - YEAR AVERAGE		CURRENT YEAR			
WD/WD NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WD	STREAM
5/36/37 STEVENS-LEITER WELL	BLUE/EAGLE RIVERS	94	166	222	365	- William Company	GROUNDWATER
(AKA ARKANSAS WELL)							
TOTAL:				222			

		RECIPIENT					SOURCE	
			10 - YEAR AVERA	GE	CURRENT YE	AR		
		STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WDWD	STREAM
11	COLUMBINE DITCH	ARKANSAS RIVER	1654	111	1469	91		EAGLE RIVER
11	EWING DITCH	TENNESSEE CREEK	1012	139	796	165		EAGLE RIVER
11	WURTZ DITCH	TENNESSEE CREEK	2228	113	2074	106		EAGLE RIVER
	HOMESTAKE TUNNEL	LAKE FORK CREEK	24275	231	35646	79		EAGLE RIVER
11	BOUSTEAD TUNNEL	LAKE FORK CREEK	46691	204	55104	365	5/38	FRYINGPAN RIVER
11	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4775	174	4101	197	5/38	FRYINGPAN RIVER
11	TWIN LAKES TUNNEL	LAKE CREEK	40718	355	42592	362	5/38	ROARING FORK RIVI
11	LARKSPUR DITCH	SOUTH ARKANSAS RIVER	168	78	146	119	4/28	TOMICHI CREEK
79	MEDANO DITCH	HUERFANO RIVER	974	55	865	55		MEDANO CREEK
79	HUDSON DITCH	HUERFANO RIVER	143	42	52	13		MEDANO CREEK
	TOTAL:				142845			

	SOURCE						
		10 - YEAR AVERA	CURRENT YE	AR			
WD/WD NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WDISTREAM	STREAM
5/36/37 STEVENS-LEITER WELL	BLUE/EAGLE RIVERS	70	130	150	365	1110	GROUNDWATER
(AKA ARKANSAS WELL)							
TOTAL:				150	-	11501111111111111111111111111111111111	

### 1993 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS

CIPIE	NI							SOURCE
			10 - YEAR AVERA	GE	CURRENT YE	AR	***	
WD	NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WD/WD	STREAM
11	COLUMBINE DITCH	ARKANSAS RIVER	1839	117	2480	144		EAGLE RIVER
	EWING DITCH	TENNESSEE CREEK	1239	136	1630	149		EAGLE RIVER
	WURTZ DITCH	TENNESSEE CREEK	2659	119	4030	147		EAGLE RIVER
11	HOMESTAKE TUNNEL	LAKE FORK CREEK	22961	238	27990	104	5/37	EAGLE RIVER
	BOUSTEAD TUNNEL	LAKE FORK CREEK	52028	166	88720	365		FRYINGPAN RIVER
11	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	5785	179	4940	134		FRYINGPAN RIVER
11	TWIN LAKES TUNNEL	LAKE CREEK	36959	355	63200	365		ROARING FORK RIVE
11	LARKSPUR DITCH	SOUTH ARKANSAS RIVER	158	96	153	120		TOMICHI CREEK
79	MEDANO DITCH	HUERFANO RIVER	1053	64	1063	61		MEDANO CREEK
79	HUDSON DITCH	HUERFANO RIVER	186	51	0	0		MEDANO CREEK
_	TOTAL:				194206			

### 1993 TRANSMOUNTAIN DIVERSION SUMMARY - OUTFLOWS

RECIPIENT	SOURCE						
		10 - YEAR AVERA	GE	<b>CURRENT YE</b>	AR		
WD/WD NAME OF DIVERSION	STREAM	ACRE FEET	DAYS	ACRE FEET	DAYS	WD	STREAM
5/36/37 STEVENS-LEITER WELL	BLUE/EAGLE RIVERS	33	61	222	325	11	GROUNDWATER
(AKA ARKANSAS WELL)							1997
TOTAL:				222			

## **APPENDIX B**

RESERVOIR STORAGE SUMMARY 1997

### 1997 SELECTED RESERVOIR STORAGE SUMMARY BY WATER DISTRICT

					AMOUNT IN STORAGE (AF)				
				MINIMUM		MAXIMUM		END OF	
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	YEAR	
10	2045	PIKEVIEW RESERVOIR	MONUMENT OBEEK						
			MONUMENT CREEK	52	03/04/97	72	11/02/96		
10		SOUTH SUBURBAN RESERVOIR	CHEYENNE CREEK	185	05/27/97	213	11/05/96	2	
10		GOLD CAMP RESERVOIR	CHEYENNE CREEK	333	05/18/97	358	11/11/96	3	
10		LAKE MORAINE RESERVOIR	RUXTON CREEK	360	02/05/97	928	08/07/97	7	
10		CRYSTAL CREEK RESERVOIR	CRYSTAL CREEK	2,647	01/29/97	3,354	08/04/97	3,2	
10		FOUNTAIN VALLEY RESERVOIR	FOUNTAIN CREEK	2,655	08/08/97	3,705	02/28/97	2,7	
10		RAMPART RESERVOIR	TRANSMOUNTAIN SOURCES	25,175	11/01/96	34,993	06/18/97	28,1	
10		SOUTH CATAMOUNT	TRANSMOUNTAIN SOURCES	1,860	05/17/97	2,548	06/18/97	2,2	
10	3673	NORTH CATAMOUNT	TRANSMOUNTAIN SOURCES	9,667	01/30/97	11,301	06/26/97	10,3	
		TOTAL FOR DISTRICT 10		42,934		57,472		48,2	
11	3500	TURQUOISE RESERVOIR	LAKE FORK CRK & XMTN	68,545	04/18/97	128,506	07/04/97	120,8	
11		TWIN LAKES RESERVOIR	LAKE CRK & XMTN	104,876	03/28/97	147,538	08/08/97	141,4	
11		CLEAR CREEK RESERVOIR	CLEAR CREEK	0	10/03/97	10,168	06/20/97	141,-	
+		TOTAL FOR DISTRICT 11		173,421		286,212		262,2	
				179,121		200,212		202,2	
12			BEAVER CREEK	1,344	03/18/97	2,541	06/12/97	2,4	
12		WILSON RESERVOIR	BEAVER CREEK	0	11/01/96	288	09/25/97	- 1	
12		BIGHORN RESERVOIR	BEAVER CREEK	0	11/01/96	191	07/10/97		
12		MCREYNOLDS RESERVOIR	BEAVER CREEK	1,086	03/16/97	1,490	09/05/97	1,4	
12		MASON RESERVOIR	BEAVER CREEK	0	11/01/96	396	06/18/97		
12		BOEHMER RESERVOIR	BEAVER CREEK	351	04/14/97	543	09/11/97		
12	3779	BRUSH HOLLOW RESERVOIR	BEAVER CREEK	0	11/01/96	1,502	08/29/97	1,4	
		TOTAL FOR DISTRICT 12		0		1,502		1,4	
13	3613	DEWEESE-DYE RESERVOIR	GRAPE CREEK	547	11/01/96	4,018	02/22/97	4.0	
10	3013	DEVVELOE-DIE REGERVORK	OIVALE ONLER	347	11/01/90	4,010	02/22/97	4,0	
		TOTAL FOR DISTRICT 13		547		4,018		4,0	
14		PUEBLO RESERVOIR	ARKANSAS RIVER	195,695	10/31/97	280,931	03/16/97	195,6	
14		TELLER RESERVOIR	TURKEY CREEK	407	01/31/97	1,270	05/30/97	1,0	
14		MEREDITH RESERVOIR	ARKANSAS RIVER	30,871	09/26/97	40,431	08/15/97	37,0	
14	3524	HENRY RESERVOIR	ARKANSAS RIVER	4,182	01/31/97	8,751	05/30/97	5,4	
-		TOTAL FOR DISTRICT 14		231,155		331,383		239,2	
_						,			

### 1997 SELECTED RESERVOIR STORAGE SUMMARY BY WATER DISTRICT

					AMOU	NT IN STORA	GE (AF)	
14/51		DECEDIAL NAME	Joolin of Otto	MINIMUM		MAXIMUM		END OF
WD	עו	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	YEAR
15	3828	ST CHARLES RESERVOIR #2	ARKANSAS & ST. CHARLES RIVERS	1,920	06/03/97	2,360	11/12/96	2,36
15	3829	ST CHARLES RESERVOIR #3	ARKANSAS & ST. CHARLES RIVERS	5,450	11/19/96	8,070	01/14/97	7,65
15	3693	MINNEQUA LAKE	ARKANSAS & ST. CHARLES RIVERS	1,140	11/01/96	1,140	10/31/97	1,14
15	3695	BECKWITH RESERVOIR	GREENHORN CREEK	875	02/11/97	1,080	05/20/97	1,00
		TOTAL FOR DISTRICT 15		9,385		12,650		12,1
16	3712	CUCHARA VALLEY RESERVOIR	CUCHARAS RIVER	3,273	06/04/97	8,428	10/31/97	8,4
16	3715	LAKE MIRIAM RESERVOIR	CUCHARAS RIVER	1,557	08/08/97	2,115	04/25/97	1,6
16	3716	LAKE OEHM RESERVOIR	CUCHARAS RIVER	2,022	10/31/97	2,692	04/04/97	2,0
		TOTAL FOR DISTRICT 16		6,852		13,235		12,0
17	3510	DYE RESERVOIR	ARKANSAS RIVER	0	11/01/96	2,117	06/20/97	
17		HOLBROOK RESERVOIR	ARKANSAS RIVER	1,070	09/26/97	6,349	05/02/97	1,5
17	3545	HORSE CREEK RESERVOIR	HORSE CREEK & ARKANSAS RIVER	8,724	12/13/96	27,430	06/20/97	15,6
17	3546	ADOBE RESERVOIR	ADOBE CREEK & ARKANSAS RIVER	28,417	11/01/96	65,735	08/15/97	53,4
		TOTAL FOR DISTRICT 17		38,211		101,631		70,5
18	3780	SEVEN LAKES RESERVOIR	APISHAPA RIVER	0	11/01/96	0	10/31/97	
		TOTAL FOR DISTRICT 18		0		0		
19	3935	TRINIDAD RESERVOIR	PURGATOIRE RIVER	8,934	11/01/96	24,766	08/25/97	16,3
19	3857	MONUMENT LAKE RESERVOIR	CHERRY CREEK	1,511	05/27/97	1,674	11/01/96	1,5
19		NORTH LAKE RESERVOIR	PURGATOIRE RIVER	4,276	11/01/96	4,276	10/31/97	4,2
19		RUSSEL RESERVOIR	WHISKEY CREEK	180	07/28/97	290	05/27/97	2
19	3941	LAKE DOROTHY	CIMARRON RIVER BASIN	205	12/24/96	232	'03/26/97	2
		TOTAL FOR DISTRICT 19		15,106		31,238		22,5
67	3883	GREAT PLAINS RESERVOIRS	ARKANSAS RIVER	43,000	08/07/97	75,885	01/09/97	61,4
67		JOHN MARTIN RESERVOIR	ARKANSAS RIVER	230,535	11/01/96	324,621	07/01/97	296,0
67		TWO BUTTE RESERVOIR	TWO BUTTE CREEK	900	06/06/97	6,319	09/05/97	5,4
67	3882	THURSTON RESERVOIR	ARKANSAS RIVER	1,810	10/02/97	2,432	09/05/97	1,9
		TOTAL FOR DISTRICT 67		276,245		409,257		364,9

## APPENDIX C

WATER DIVERSION SUMMARY 1997

### 1997 WATER DIVERSION SUMMARY

(ALL UNITS: ACRE-FEET)

USE TYPE	WD10	WD11	WD12	WD13	WD14	WD15	WD16	WD17	WD18	WD19	WD66	WD67	WD79	TOTAL
													11.010	10171
IRRIGATION	38,715	166,432	144,010	54,300	326,157	10,103	17,987	790,450	11,272	68,596	1,110	281,247	24,956	1,935,335
STORAGE	10,846	322,614	2,500	3,400	210,871	214	2,359	172,323	0	28,796	0	392,828	1,190	1,147,941
MUNICIPAL	91,855	5,412	8,438	183	33,703	1,797	4,439	0	150	0	0	0	0	145,977
COMMERCIAL	105	0	7	0	0	139	0	0	0	0	0	0	0	251
DOMESTIC	0	0	90	0	0	85	0	0	0	0	0	0	0	175
STOCK	0	0	0	0	0	5	0	0	0	638	0	0	0	643
INDUSTRIAL	2,268	0	112,579	0	20,717	9,962	0	0	0	0	0	0	0	145,526
RECREATIONAL	0	0	0	0	0	0	17	0	0	0	0	0	0	17
FISHERY	0	20,515	0	0	0	192	0	1,184	0	0	0	0	0	21,891
AUGMENTATION	12,654	0	273	0	1,229	0	13	0	0	0	0	4,205	0	18,374
RECHARGE	0	0	0	0	0	0	0	0	0	0	0	2,128	0	2,128
TOTAL	156,443	514,973	267,897	57,883	592,677	22,497	24,815	963,957	11,422	98,030	1,110	680,408	26.146	3,418,258

# APPENDIX D

WATER COURT ACTIVITY 1997

### **1997 WATER COURT ACTIVITY**

APPLICATIONS FILED BY TYPE		NUMBER OF	CONSULTATIONS
	NUMBER	STRUCTURES	
AUGMENTATION	17	238	17
CHANGE OF WATER RIGHT	21	67	21
INJUNCTIONS/COMPLAINTS	85	160	0
SURFACE	16	31	16
STORAGE	1	3	1
UNDERGROUND	22	54	22
MULTIPLE CASE TYPES	6	238	6
DILIGENCE	2	59	2
MAKE CONDITIONAL RIGHTS ABSOLUTE	1	1	1
OTHER	2	16	2
TOTALS:	173	867	88

# APPENDIX E

RIVER CALLS 1997-1993

Date Arkansas River Call	Priority Date
11/1/96 COLORADO CANAL	6/9/1890
11/2/96 COLORADO CANAL	6/9/1890
11/3/96 COLORADO CANAL	6/9/1890
11/4/96 COLORADO CANAL	6/9/1870
11/5/96 COLORADO CANAL	6/9/1890
11/6/96 COLORADO CANAL	6/9/1890
11/7/96 COLORADO CANAL	6/9/1890
11/8/96 COLORADO CANAL	6/9/1890
11/9/96 COLORADO CANAL	6/9/1890
11/10/96 COLORADO CANAL	6/9/1890
11/11/96 COLORADO CANAL	6/9/1890
11/12/96 FORT LYON #2	3/1/1887
11/13/96 FORT LYON #2	3/1/1887
11/14/96 FORT LYON #2	3/1/1887
11/15/96 WINTER WATER	3/1/1910
11/16/96 WINTER WATER	3/1/1910
11/17/96 WINTER WATER	3/1/1910
11/18/96 WINTER WATER	3/1/1910
11/19/96 WINTER WATER	3/1/1910
11/20/96 WINTER WATER	3/1/1910
11/21/96 WINTER WATER	3/1/1910
11/22/96 WINTER WATER	3/1/1910
11/23/96 WINTER WATER	3/1/1910
11/24/96 WINTER WATER	3/1/1910
11/25/96 WINTER WATER	3/1/1910
11/26/96 WINTER WATER	3/1/1910
11/27/96 WINTER WATER	3/1/1910
11/28/96 WINTER WATER	3/1/1910
11/29/96 WINTER WATER	3/1/1910
11/30/96 WINTER WATER	3/1/1910
12/1/96 WINTER WATER	3/1/1910
12/2/96 WINTER WATER	3/1/1910
12/3/96 WINTER WATER	3/1/1910
12/4/96 WINTER WATER	3/1/1910
12/5/96 WINTER WATER	3/1/1910
12/6/96 WINTER WATER	3/1/1910
12/7/96 WINTER WATER	3/1/1910
12/8/96 WINTER WATER	3/1/1910
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12/12/96 WINTER WATER	3/1/1910
12/13/96 WINTER WATER	3/1/1910
12/14/96 WINTER WATER	3/1/1910
12/15/96 WINTER WATER	3/1/1910
12/16/96 WINTER WATER	3/1/1910
12/17/96 WINTER WATER	3/1/1910

Deite	Arkansas River Call	Priority Date
	WINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
12/21/96	WINTER WATER	3/1/1910
12/22/96	WINTER WATER	3/1/1910
12/23/96	WINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
12/25/96	WINTER WATER	3/1/1910
12/26/96	WINTER WATER	3/1/1910
12/27/96	WINTER WATER	3/1/1910
12/28/96	WINTER WATER	3/1/1910
12/29/96	WINTER WATER	3/1/1910
12/30/96	WINTER WATER	3/1/1910
12/31/96	WINTER WATER	3/1/1910
1/1/97	WINTER WATER	3/1/1910
1/2/97	WINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
1/4/97	WINTER WATER	3/1/1910
1/5/97	WINTER WATER	3/1/1910
1/6/97	WINTER WATER	3/1/1910
1/7/97	WINTER WATER	3/1/1910
1/8/97	WINTER WATER	3/1/1910
1/9/97	WINTER WATER	3/1/1910
1/10/97	WINTER WATER	3/1/1910
1/11/97	WINTER WATER	3/1/1910
1/12/97	WINTER WATER	3/1/1910
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1/22/97	WINTER WATER	3/1/1910
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1/24/97	WINTER WATER	3/1/1910
1/25/97	WINTER WATER	3/1/1910
1/26/97	WINTER WATER	3/1/1910
1/27/97	MINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
1/29/97	WINTER WATER	3/1/1910
	WINTER WATER	3/1/1910
	MINTER WATER	3/1/1910
	MINTER WATER	3/1/1910
2/2/97	WINTER WATER	3/1/1910

Date Arkans	s River Call Profity Date
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. 2/7/97 WINTER WAT	ER 3/1/1910
2/8/97 WINTER WAT	ER 3/1/1910
2/9/97 WINTER WAT	ER 3/1/1910
2/10/97 WINTER WAT	ER 3/1/1910
2/11/97 WINTER WAT	ER 3/1/1910
2/12/97 WINTER WAT	ER 3/1/1910
2/13/97 WINTER WAT	ER 3/1/1910
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2/15/97 WINTER WAT	ER 3/1/1910
2/16/97 WINTER WAT	ER 3/1/1910
2/17/97 WINTER WAT	ER 3/1/1910
2/18/97 WINTER WAT	
2/19/97 WINTER WAT	ER 3/1/1910
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2/21/97 WINTER WATI	ER 3/1/1910
2/22/97 WINTER WATI	ER 3/1/1910
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2/25/97 WINTER WATE	ER 3/1/1910
2/26/97 WINTER WATE	ER 3/1/1910
2/27/97 WINTER WATE	ER 3/1/1910
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3/10/97 WINTER WATE	
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3/13/97 WINTER WATE	
3/14/97 WINTER WATE	
3/15/97 FORT LYON #2	
3/16/97 FORT LYON #2	
3/17/97 FORT LYON #2	
3/18/97 FORT LYON #2	
3/19/97 FORT LYON #2	
3/20/97 FORT LYON #2	
3/21/97 FORT LYON #2	
3/22/97 FORT LYON #2	2 3/1/1887

Date	Arkansas River Call	Priority Date
	FORT LYON #2	3/1/1887
3/24/97	FORT LYON #2	3/1/1887
3/25/97	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
3/28/97	FORT LYON #2	3/1/1887
3/29/97	FORT LYON #2	3/1/1887
3/30/97	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
4/2/97	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
3,400 0000000000000000000000000000000000	FORT LYON #2	3/1/1887
	COLORADO CANAL	6/9/1890
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	FT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	OXFORD	2-26-1887
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	Fort Lyon #2	3/1/1887
	FORT LYON # 2	3/1/1887
	COLORADO CANAL	6/9/1890
	Colo Canal	6/9/1890
	COLORADO CANAL	6/9/1890
	COLORADO CANAL	6/9/1890
	COLORADO CANAL	6/9/1890
	HOLBROOK	9/25/1889
4/30/97		2/1/1887
	Ft. Lyon #2	3/1/1887
	Colorado Canal	6/9/1890
	Colo Canal	6/9/1890
	COLORADO CANAL	6/9/1890
	Holbrook	9/25/1889
	FORT LYON #2	3/1/1887

ाइक	Aikansas River Call	Priority Date
5/10/97	FORT LYON #2	3/1/1887
5/11/97	BESSEMER #2	5/1/1887
5/12/97	HOLBROOK	9/25/1889
5/13/97	HIGHLINE	1/6/1890
. 5/14/97	HIGHLINE	1/6/1890
5/15/97	HIGHLINE	1/6/1890
5/16/97	HIGHLINE	1/6/1890
5/17/97	HOLBROOK	9/25/1889
5/18/97	HOLBROOK	9/25/1889
5/19/97	HOLBROOK #2	8/30/1893
5/20/97	HOLBROOK #2	8/30/1893
	COLORADO CANAL	6/9/1890
5/22/97	COLORADO	6/9/1890
	HOLBROOK #2	8/30/1893
	HOLBROOK #2	8/30/1893
ANTIQUE CANCELLAND SOUTH	HOLBROOK #2	8/30/1893
	HOLBROOK #2	8/30/1893
	FORT LYON #3	8/31/1893
5/28/97	FORT LYON #3	8/31/1893
	FORT LYON #3	8/31/1893
	COLORADO CANAL	6/9/1890
	COLORADO CANAL	6/9/1890
6/1/97	COLORADO CANAL	6/9/1890
	AMITY #2	4/1/1893
6/3/97	HOLBROOK #2	8/30/1893
6/4/97	FORT LYON STORAGE	1/25/1906
6/5/97	ADOBE/HORSE CREEK RESER	15- Material Action Action Action (Control of Control o
	ADOBE/HORSE CREEK RESER	
	JOHN MARTIN RESERVOIR	12/14/1948
6/8/97	JOHN MARTIN	12/14/1948
	JOHN MARTIN	12/14/1948
6/10/97	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
6/12/97	JOHN MARTIN RESERVOIR	12/14/1948
6/13/97	JOHN MARTIN RESERVOIR	12/14/1948
6/14/97	JOHN MARTIN RESERVOIR	12/14/1948
6/15/97	JOHN MARTIN RESERVOIR	12/14/1948
6/16/97	IOHN MARTIN RESERVOIR	12/14/1948
6/17/97	IOHN MARTIN RESERVOIR	12/14/1948
6/18/97	IOHN MARTIN RESERVOIR	12/14/1948
6/19/97	IOHN MARTIN RESERVOIR	12/14/1948
6/20/97	IOHN MARTIN RESERVOIR	12/14/1948
6/21/97	IOHN MARTIN RESERVOIR	12/14/1948
6/22/97	IOHN MARTIN RESERVOIR	12/14/1948
6/23/97	IOHN MARTIN RESERVOIR	12/14/1948
6/24/97	IOHN MARTIN RESERVOIR	12/14/1948
6/25/97	OHN MARTIN RESERVOIR	12/14/1948

Date	Arkansas River Call	Priority Date:
	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
6/29/97	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
	GREAT PLAINS	8/1/1896
	GREAT PLAINS	8/1/1896
	GREAT PLAINS	8/1/1896
Section Control of the Control of th	FORT LYON #3	8/31/1893
	FORT LYON #3	8/31/1893
	FORT LYON #3	8/31/1893
Limited Control of the Control of th	FORT LYON #3	8/31/1893
	COLORADO CANAL	6/9/1890
	COLORADO CANAL	6/9/1890
	FORT LYON #2	3/1/1887
500 ME - 100 C-0000000000000000000000000000000	BESSEMER	5/1/1887
	BESSEMER #2	5/1/1887
AND THE STREET	BESSEMER	5/1/1887
	CONSOLIDATED	3/13/1887
	CONSOLIDATED	3/13/1888
	BESSEMER #2	5/1/1887
	FORT LYON #2	3/1/1887
	HIGHLINE	1/6/1890
7/22/97		3/3/1890
	HOLBROOK	9/25/1889
	FORT LYON #2	3/1/1887
85970 /s = 3n1607900 0909005574 (8	FORT LYON #2	3/1/1887
	HOLBROOK	9/25/1889
	HIGHLINE	1/6/1890
	HIGHLINE	1/6/1890
	HOLBROOK	9/25/1889
	HOLBROOK	9/25/1889
	BESSEMER	5/1/1887
	GREAT PLAINS	8/1/1896
	FORT LYON STORAGE	1/25/1906
	JOHN MARTIN	12/14/1948
	JOHN MARTIN	12/14/1948
	AKE MEREDITH	3/9/1898
17,520,1000,000,000	AKE MEREDITH	3/9/1898
	JOHN MARTIN RESERVOIR	12/14/1948

Date	Arkansas River Gall	Proving Date
	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RES	12/14/1948
	JOHN MARTIAN RES	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
	HOLBROOK	9/25/1889
	HOLBROOK	9/25/1889
8/29/97	BESSEMER	5/1/1887
	BESSEMER	5/1/1887
	BESSEMER	5/1/1887
9/1/97	HIGHLINE	1/6/1890
9/2/97	HOLBROOK	9/25/1889
9/3/97	BESSEMER	5/1/1887
9/4/97	FORT LYON #2	3/1/1887
9/5/97	FORT LYON #2	3/1/1887
9/6/97	FORT LYON #2	3/1/1887
9/7/97	FORT LYON #2	3/1/1887
9/8/97	FORT LYON #2	3/1/1887
9/9/97	FORT LYON #2	3/1/1887
9/10/97	FORT LYON #2	3/1/1887
9/11/97	FORT LYON #2	3/1/1887
9/12/97	FORT LYON #2	3/1/1887
9/13/97	FORT LYON #2	3/1/1887
9/14/97	FORT LYON #2	3/1/1887
9/15/97 F	FORT LYON #2	3/1/1887
9/16/97	FORT LYON #2	3/1/1887
9/17/97 F	FORT LYON #2	3/1/1887
9/18/97 F	FORT LYON #2	3/1/1887
9/19/97 F	FORT LYON #2	3/1/1887
9/20/97 F	FORT LYON #2	3/1/1887
	FORT LYON #2	3/1/1887
9/22/97 F	FORT LYON #2	3/1/1887
9/23/97 E	BESSEMER	5/1/1887
9/24/97	BESSEMER #2	5/1/1887
	COLORADO CANAL	6/9/1890
1000 HOLD TO THE LEGISLATION OF	COLORADO CANAL	6/9/1890
9/27/97	COLORADO CANAL	6/9/1890

Date	Arkansas River Gall	Priority Date
9/28/97	COLORADO CANAL	6/9/1890
9/29/97	COLORADO CANAL	6/9/1890
9/30/97	HOLBROOK	9/25/1889
10/1/97	HOLBROOK	9/25/1889
. 10/2/97	HOLBROOK	9/25/1889
10/3/97	FORT LYON #2	3/1/1887
10/4/97	FORT LYON #2	3/1/1887
10/5/97	FORT LYON #2	3/1/1887
10/6/97	FORT LYON #2	3/1/1887
10/7/97	FORT LYON #2	3/1/1887
10/8/97	FORT LYON #2	3/1/1887
10/9/97	FORT LYON #2	3/1/1887
10/10/97	FORT LYON #2	3/1/1887
10/11/97	FORT LYON #2	3/1/1887
10/12/97	FORT LYON #2	3/1/1887
10/13/97	COLORADO CANAL	6/9/1890
10/14/97	COLORADO CANAL	6/9/1890
10/15/97	COLORADO CANAL	6/9/1890
10/16/97	COLORADO CANAL	6/9/1890
10/17/97	COLORADO CANAL	6/9/1890
10/18/97	COLORADO CANAL	6/9/1890
10/19/97	COLORADO CANAL	6/9/1890
10/20/97	COLORADO CANAL	6/9/1890
10/21/97	COLORADO CANAL	6/9/1890
10/22/97	COLORADO CANAL	6/9/1890
10/23/97	COLORADO CANAL	6/9/1890
10/24/97	COLORADO CANAL	6/9/1890
10/25/97	COLORADO CANAL	6/9/1890
	JOHN MARTIN RESERVOIR	12/14/1948
10/27/97	JOHN MARTIN RESERVOIR	12/14/1948
District Control of the Control of t	JOHN MARTIN RESERVOIR	12/14/1948
	JOHN MARTIN RESERVOIR	12/14/1948
10/30/97	JOHN MARTIN RESERVOIR	12/14/1948

Date Arkansas Rivar Gall	Priority Date
7/11/96 FORT LYON STORAGE	1/25/1906
7/19/96 HIGH LINE	1/6/1890
7/22/96 CATLIN #2	11/14/1887
7/23/96 BESSEMER	5/1/1887
. 7/24/96 BESSEMER	5/1/1887
7/25/96 BESSEMER	5/1/1887
7/27/96 BESSEMER #2	5/1/1887
7/28/96 COLO CANAL	1/6/1890
7/29/96 FORT LYON #2	3/1/1887
7/30/96 BESSEMER #2	5/1/1887
7/31/96 FORT LYON #2	3/1/1887
8/1/96 FORT LYON #2	3/1/1887
8/2/96 FORY LYON #2	3/1/1887
8/3/96 FORT LYON #2	3/1/1887
8/4/96 FORT LYON #2	3/1/1887
8/5/96 FORT LYON #2	3/1/1887
8/6/96 FORT LYON #2	3/1/1887
8/7/96 FORT LYON #2	3/1/1887
8/8/96 FORT LYON #2	3/1/1887
8/9/96 FORT LYON #2	3/1/1887
8/10/96 FORT LYON #2	3/1/1887
8/11/96 FORT LYON #2	3/1/1887
8/12/96 FORT LYON #2	3/1/1887
8/13/96 FORT LYON #2	3/1/1887
8/14/96 OXFORD	2/26/1887
8/15/96 OXFORD	2/26/1887
8/16/96 OXFORD	2/26/1887
8/17/96 OXFORD	2/26/1887
8/18/96 OXFORD	2/26/1887
8/19/96 OXFORD	2/26/1887
8/20/96 FORT LYON #2	3/1/1887
8/21/96 FORY LYON #2	3/1/1887
8/22/96 FORT LYON #2	3/1/1887
8/23/96 FORT LYON #2	3/1/1887
8/24/96 GREAT PLAINS	8/1/1896
8/25/96 GREAT PLAINS	8/1/1896
8/26/96 HIGHLINE #5	1/6/1890
8/27/96 HOLBROOK	9/25/1890
8/28/96 HOLBROOK	9/25/1890
8/29/96 HOLBROOK	9/25/1890
8/30/96 GREAT PLAINS	8/1/1896
8/31/96 GREAT PLAINS	8/1/1896
9/1/96 GREAT PLAINS	8/1/1896
9/2/96 GREAT PLAINS	8/1/1896
9/3/96 GREAT PLAINS	8/1/1896
9/4/96 COLORADO CANAL	6/9/1890
9/5/96 COLORADO CANAL	6/9/1890

Date         Arkansas River Call         Priority D           9/6/96 HIGHLINE         1/6/1890           9/7/96 HOLBROOK         9/25/1889           9/8/96 HOLBROOK         9/25/1889           9/9/96 FORT LYON #2         3/1/1887           9/10/96 FORT LYON #2         3/1/1887           9/11/96 FORT LYON #2         3/1/1887	
9/7/96 HOLBROOK 9/25/1889 9/8/96 HOLBROOK 9/25/1889 9/9/96 FORT LYON #2 3/1/1887 9/10/96 FORT LYON #2 3/1/1887 9/11/96 FORT LYON #2 3/1/1887	
9/8/96 HOLBROOK 9/25/1889 9/9/96 FORT LYON #2 3/1/1887 9/10/96 FORT LYON #2 3/1/1887 9/11/96 FORT LYON #2 3/1/1887	
9/9/96 FORT LYON #2 3/1/1887 9/10/96 FORT LYON #2 3/1/1887 9/11/96 FORT LYON #2 3/1/1887	
9/10/96 FORT LYON #2 3/1/1887 9/11/96 FORT LYON #2 3/1/1887	
9/11/96 FORT LYON #2 3/1/1887	
9/12/96 OXFORD #2 2/26/1887	
9/13/96 OXFORD #2 2/26/1887	
9/14/96 FORT LYON #2 3/1/1887	
9/15/96 FORT LYON #2 3/1/1887	
9/16/96 FORT LYON #2 3/1/1887	
9/17/96 FORT LYON #2 3/1/1887	
9/18/96 FT. LYON # 2 3/1/1887	
9/19/96 FT. LYON # 2 3/1/1887	
9/20/96 BESSEMER 5/1/1887	
9/21/96 BESSEMER 5/1/1887	
9/22/96 BESSEMER 5/1/1887	
9/23/96 BESSEMER 5/1/1887	
9/24/96 BESSEMER 5/1/1887	
9/25/96 FT. LYON #2 3/1/1887	
9/26/96 FORY LYON #2 3/1/1887	
9/27/96 BESSEMER 3/1/1887	
9/28/96 HOLBROOK 9/25/1889	
9/29/96 HOLBROOK 9/25/1889	
9/30/96 HOLBROOK 9/25/1889	
10/1/96 HOLBROOK 9/25/1889	
10/2/96 HOLBROOK 9/25/1889	
10/3/96 HOLBROOK 9/25/1889	
10/4/96 HOLBROOK 9/25/1889	
10/5/96 BESSEMER #2 5/1/1887	
10/6/96 BESSEMER #2 5/1/1887	
10/7/96 FORT LYON #2 3/1/1887	
10/8/96 FORT LYON #2 3/1/1887	
10/9/96 FORT LYON #2 3/1/1887	
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10/13/96 FORT LYON #2 3/1/1887	
10/14/96 FORT LYON #2 3/1/1887	
10/15/96 FORT LYON #2 3/1/1887	
10/16/96 FT. LYON #2 3/1/1887	
10/17/96 Ft. Lyon #2 3/1/1887	
10/18/96 Ft. Lyon #2 3/1/1887	
10/19/96 Ft. Lyon #2 3/1/1887	
10/20/96 Ft. Lyon #2 3/1/1887	$\neg$
10/21/96 Ft. Lyon #2 3/1/1887	
10/22/96 FORT LYON #2 3/1/1887	

Date	Arkansas River Call	Priority Date
10/23/96	FORT LYON #2	3/1/1887
10/25/96	FORT LYON #2	3/1/887
10/26/96	FORT LYON #2	3/1/1887
10/27/96	HOLBROOK	9/25/1889
10/28/96	COLORADO CANAL	6/9/1890
10/29/96	COLORADO CANAL	6/9/1890
10/30/96	COLORADO CANAL	6/9/1890

03/01/1910	WINTER WATER (84CW179)	DISTRICTS	
		ALL	120
03/15/1887	FORT LYON #2	10-15,17	8
02/26/1887	OXFORD #2		1
12/03/1884	CATLIN	and the second second	1
03/01/1887	FORT LYON #2		23
02/21/1887	AMITY		4
03/01/1887			1
01/06/1890	HIGHLINE JR		1
06/09/1890	COLORADO	A CONTRACTOR OF THE PROPERTY O	1
09/25/1889	HOLBROOK	2000 C 100 C	1
03/01/1887	FORT LYON #2		3
01/06/1890	HIGHLINE JR		1
9/25/1889	HOLBROOK	1000000	2
01/06/1890	A STATE OF THE STA		4
9/25/1889	HOLBROOK		1
1/06/1890			1
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	Control of the Contro		1
8/30/1893			1
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and the second control of the second control			3
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		A STATE OF THE STA	10
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	The control of the co		23
STATE OF THE STATE			25
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	Commercial		2
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	The state of the s		1
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	The Matter Control of the Control of		3
8/03/1893	FORT LYON #3	10-15,17	1
	12/03/1884 03/01/1887 02/21/1887 03/01/1887 01/06/1890 09/25/1889 01/06/1890 09/25/1889 01/06/1890 09/25/1889 01/06/1890 09/25/1889 01/06/1890 01/06/1890 03/01/1887 01/06/1890 03/01/1887 01/25/1906 02/14/1948 03/01/1887 01/25/1906 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 02/14/1948 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1887 03/01/1889 03/01/1890 03/05/1889	12/03/1884 CATLIN 13/01/1887 FORT LYON #2 10/21/1887 AMITY 103/01/1887 FORT LYON #2 10/106/1890 HIGHLINE JR 10/06/1890 HOLBROOK 10/06/1890 HIGHLINE JR 10/06/1893 FORT LYON #3 10/10/06/1894 JOHN MARTIN RESERVOIR 10/09/1969 TWIN/TURQ (FRY-ARK) 10/09/1969 TWIN/TURQ (FRY-ARK) 10/09/1969 TWIN/TURQ (FRY-ARK) 10/06/1890 HIGHLINE JR	10-14   10-15,17   10-16,19/09/1890   COLORADO   10-14   10-15,17   10-15,17   10-16,1890   HIGHLINE JR   10-14   10-16,1890   HIGHLINE JR   10-14   10-16,1890   HIGHLINE JR   10-14   10-15,17   10-16,1890   HIGHLINE JR   10-14   10-15,17   10-16,1890   HIGHLINE JR   10-14   10-15,17   10-16,1890   HIGHLINE JR   10-15,17   10-16,1890   HIGHLINE JR   10-15,17   10-16,1890   HIGHLINE JR   10-14   10-15,17   10-15,17   10-16,1890   HIGHLINE JR   10-14   10-15,17   10-15,17   10-15,17   10-15,17   10-15,17   10-15,17   10-15,17   10-15,17   10-15,17   1

DURATION	DSTROTS	EVILITY	PRIORITY	GURRENT
1	10-15,17	OTERO	03/03/1890	9/1/95
4	10-14	BESSEMER #2	05/01/1887	9/2/95
1	10-15,17	FORT LYON #2	03/01/1887	9/6/95
3	10-14	BESSEMER #2	05/01/1887	9/7/95
5	10-14	COLORADO	06/06/1890	9/10/95
1	10-15,17	FORT LYON #2	03/01/1887	9/15/95
10	10-15,17	HOLBROOK	09/25/1889	9/16/95
2	10-14	BESSEMER #2	05/01/1887	9/26/95
. 8	10-15,17	FORT LYON #2	03/01/1887	9/28/95
1	10-14	BESSEMER #2	05/01/1887	10/6/95
11	10-15,17	HOLBROOK	09/25/1889	10/7/95
1	10-14	BESSEMER #2	05/01/1887	10/18/95
4	10-15,17	FORT LYON #2	03/01/1887	10/19/95
1	10-14	BESSEMER #2	05/01/1887	10/24/95
21	10-14	HIGHLINE JR	01/06/1890	10/25/95

QURRENT	PRORITY	ENTITY	DEVINERS	DURATION
11/15/93	03/01/1910	WINTER WATER (84CW179)	ALL	120
3/15/94	12/03/1884	CATLIN	10-15,17	1
3/16/94	06/30/1885	HIGHLINE	10-14	1
	02/26/1887	OXFORD #2	10-14	5
3/22/94	02/26/1887	OXFORD #2	10-14	2
3/24/94	02/26/1887	OXFORD #2	10-14	2
3/26/94	12/03/1884	CATLIN	10-15,17	1
3/27/94	02/26/1887	OXFORD #2	10-14	3
3/30/94	03/01/1887	FORT LYON #2	10-15,17	13
4/12/94	01/06/1890	HIGHLINE JR	10-14	1
4/13/94	09/25/1889	HOLBROOK	10-15,17	2
4/15/94	03/01/1887	FORT LYON #2	10-15,17	13
4/28/94	05/01/1887	BESSEMER #2	10-14	5
5/3/94	03/02/1892	HOLBROOK RESERVOIR	10-15,17	1
5/4/94	03/01/1887	FORT LYON #2	10-15,17	6
5/10/94	01/25/1906	ABODE/HORSE CREEK RES.	10-15,17	3
5/13/94	12/14/1948	JOHN MARTIN RESERVOIR	ALL	4
5/17/94	01/25/1906	ABODE/HORSE CREEK RES.	10-15,17	8
5/25/94	03/02/1892	HOLBROOK RESERVOIR	10-15,17	1
5/26/94	08/01/1896	GREAT PLAINS RES.	10-15,17	3
The second secon	01/25/1906	ABODE/HORSE CREEK RES.	10-15,17	2
	08/01/1896	GREAT PLAINS RES.	10-15,17	2
	03/09/1898	MEREDITH RESERVOIR	10-14	1
	01/25/1906	ABODE/HORSE CREEK RES.	10-15,17	1
	12/14/1948	JOHN MARTIN RESERVOIR	ALL	8
	01/25/1906	ABODE/HORSE CREEK RES.	10-15,17	1
	08/01/1896	GREAT PLAINS RES.	10-15,17	2
	06/09/1890	COLORADO/FTLYON3 SPLIT	10-15,17	2
	06/09/1890	COLORADO	10-14	2
	01/06/1890	HIGHLINE JR	10-14	3
6/22/94	06/09/1890	COLORADO	10-14	1
	01/06/1890	HIGHLINE JR	10-14	1
		HIGHLINE JR	10-14	1
	01/06/1890	HIGHLINE JR	10-14	1
	09/25/1889	HOLBROOK	10-15,17	2
	03/01/1887	FORT LYON #2	10-14,17	5
2000 200 1000 20	02/21/1887	AMITY	10-15,17,19,67	10
	02/26/1887	OXFORD #2	10-14	1
	02/21/1887	AMITY	10-15,17,19,67	9
225 CAT 22 CA 24 CA	12/03/1884	CATLIN/AMITY SPLIT	10-15,17,19,67	1
	12/03/1884	CATLIN	10-15,17	1
	12/03/1884	CATLIN/AMITY SPLIT	10-15,17,19,67	1
	12/03/1884	CATLIN/CONSOLIDATED	10-15,17	1
	12/03/1884	CATLIN/AMITY SPLIT	10-15,17,19,67	1
	12/03/1884	CATLIN/CONSOLIDATED	10-15,17,67	4
	02/21/1887	AMITY	10-15,17,19,67	12
	03/01/1887	FORT LYON #2	10-15,17	1

D)URVATION!	DETROTS	ENTITY		
2	10-15,17,19,67	AMITY	02/21/1887	8/16/94
1	10-15,17	CATLIN	12/03/1884	8/19/94
1	10-15,17,19,67	AMITY	02/21/1887	8/20/94
2	10-15,17	FORT LYON #2	03/01/1887	8/21/94
3	10-15,17,19,67	AMITY	02/21/1887	
1	10-15,17,19,67	AMITY	02/21/1887	8/26/94
3	10-15,17,19,67	AMITY	02/21/1887	
2	10-15,17,19,67	AMITY	02/21/1887	8/30/94
: 2	10-15,17,19,67	FT LYON#2/JM RES SPLIT	03/01/1887	9/1/94
4	10-15,17	FORT LYON #2	03/01/1887	9/3/94
1	10-15,17,19,67	AMITY	02/21/1887	9/7/94
2	10-15,17,19,67	AMITY	02/21/1887	9/8/94
15	10-15,17	CATLIN	12/03/1884	9/10/94
4	10-15,17,19,67	LAMAR #2	11/04/1886	9/25/94
2	10-15,17,19,67	CATLIN/LAMAR 7-16-90	12/03/1884	9/29/94
2	10-15,17	CATLIN	12/03/1884	10/1/94
1	10-15,17,19,67	CATLIN/AMITY SPLIT	12/03/1884	10/3/94
1	10-15,17,19,67	AMITY	02/21/1887	10/4/94
1	10-15,17	FORT LYON #2	03/01/1887	10/5/94
1	10-14	HIGHLINE JR	01/06/1890	10/6/94
3	10-15,17	FORT LYON #2	03/01/1887	10/7/94
1	10-15,17,19,67	AMITY	02/21/1887	10/10/94
2	10-15,17	FORT LYON #2	03/01/1887	10/11/94
5	10-15,17,19,67	AMITY	02/21/1887	10/13/94
6	10-15,17	FORT LYON #2	03/01/1887	10/18/94
1	10-14	OXFORD #2	02/26/1887	10/25/94
20	10-15,17	FORT LYON #2	03/01/1887	10/26/94

QURRENT	। हाराजसाम्	PATERTY	DETRICTS	DURATION
11/1/92	03/01/1887	FORT LYON #2	10-15,17	14
11/15/92	03/01/1910	WINTER WATER (84CW179)	ALL	120
3/15/93	03/01/1887	FORT LYON #2	10-15,17	3
3/18/93	03/02/1892	HOLBROOK RESERVOIR	10-15,17	1
3/19/93	06/09/1890	COLORADO/HOLBROOK RES		2
3/21/93	03/01/1887	FORT LYON #2	10-15,17	1
3/22/93	03/01/1887	FT LYON/HOLBROOK RES	10-15,17	3
3/25/93	03/01/1887	FORT LYON #2	10-15,17	32
4/26/93	02/21/1887	AMITY	10-15,17,19,67	. 4
4/30/93	03/01/1887	FORT LYON #2	10-15,17	6
5/6/93	02/21/1887	AMITY	10-15,17,19,67	12
5/18/93	03/01/1887	FORT LYON #2	10-15,17	1
5/19/93	01/06/1890	HIGHLINE JR	10-14	1
5/20/93	08/01/1896	GREAT PLAINS RES.	10-15,17	1
5/21/93	06/07/1890		10-15,17	1
5/22/93	06/07/1890	COLORADO/HOLBROOK RES		2
5/24/93	06/09/1890	COLORADO	10-14	2
5/26/93	03/02/1892	HOLBROOK RESERVOIR	10-15,17	1
5/27/93			10-15,17	3
5/30/93	01/25/1906		10-15,17	7
6/6/93			10-15,17	1
6/7/93	08/01/1896		10-15,17	2
6/9/93	01/06/1890		10-14	4
6/13/93			10-15,17	2
6/12/93	01/06/1890		10-14	1
6/13/93		The state of the s	10-15,17	4
6/17/93	03/02/1892		10-15,17	1
6/18/93	08/01/1896		10-15,17	6
6/24/93			10-15,17	2
6/26/93			10-15,17,19,67	2
6/28/93	06/09/1890		10-14	2
6/30/93	ALUMIN STRUCTUL COST DECISION OF	**************************************	10-15,17	7
7/7/93	01/06/1890		10-14	1
7/8/93			10-15,17	1
7/9/93			10-15,17	4
7/13/93			10-15,17	1
7/14/93	09/25/1889		10-15,17	1
7/15/93	08/31/1893		10-15,17	1
7/16/93	09/25/1889		10-15,17	4
7/20/93	06/09/1890		10-15,17,19,67	3
7/23/93			10-15,17	8
7/31/93	02/21/1887		10-15,17,19,67	4
8/4/93	03/01/1887	ACCESSOR AND	10-15,17	1
8/5/93	02/21/1887		10-15,17,19,67	
8/7/93	03/01/1887		10-15,17	3
8/10/93	02/21/1887		10-15,17,19,67	1
8/11/93	12/03/1884		10-15,17	1

GURRENT	PRIORITY	ENTITY	DISTRICTS	DURATION
8/12/93	02/21/1887	AMITY	10-15,17,19,67	2
8/14/93	02/26/1887	OXFORD #2	10-14	2
8/16/93	02/21/1887	AMITY	10-15,17,19,67	13
8/29/93	03/01/1887	FORT LYON #2	10-15,17	1
8/30/93	03/01/1887	FORT LYON #2	10-15,17	1
8/31/93	03/01/1887	FORT LYON #2	10-15,17	2
9/2/93	02/21/1887	AMITY	10-15,17,19,67	6
9/8/93	03/01/1887	FORT LYON #2	10-15,17	3
9/11/93	02/21/1887	AMITY	10-15,17,19,67	. 27
10/8/93	12/03/1884	CATLIN	10-15,17	1
10/9/93	12/03/1884	CATLIN/AMITY SPLIT	10-15,17,19,67	7
10/16/93	02/21/1887	AMITY	10-15,17,19,67	10
10/26/93	03/01/1887	FORT LYON #2	10-15,17	20

## APPENDIX F

WINTER WATER PROGRAM REPORT 1997-1993

#### WINTER WATER PROGRAM REPORT

COLORADO DIVISION OF WATER RESOURCES
DIVISION ENGINEER WATER DIVISION TWO

NOVEMBER 15,1996 THROUGH MARCH 14, 1997

PUEBLO RESERVOIR (1)	LOTOPA OF	DIRECT FLOW ENTITIES (4)	
WINTER WATER PROGRAM	STORAGE	DECOEMED	
DECCEMEN	0007.04	BESSEMER	9867.94
BESSEMER	9867.94	HIGHLINE	13250.57
HIGHLINE	13250.57	OXFORD	3194.46
OXFORD	3194.46	CATLIN	14558.65
CATLIN	14558.65	CONSOLIDATED	4530.50
CONSOLIDATED	0.00	RIVERSIDE	211.13
RIVERSIDE	211.13	WEST PUEBLO	422.26
WEST PUEBLO	422.26		***************************************
COLORADO	0.00	TOTAL	46035.50
HOLBROOK	5000.00		40000.00
FORT LYON	0.00		
AMITY	0.00	STORAGE ENTITIES (5)	
		STORAGE ENTITIES (5)	
TOTAL	46505.00	COLORADO	13143.35
		HOLBROOK	11247.82
OFF-CHANNEL STORAGE C	R DIVERSION (2)	FORT LYON	64598.00
FOR WINTER APPLICATION	9,23	AMITY	26681.50
BESSEMER	0.00	TOTAL	445070.07
	0.00	TOTAL	115670.67
HIGHLINE	0.00		
OXFORD	0.00		
CATLIN	0.00		
CONSOLIDATED	0.00		
RIVERSIDE	0.00	THEORETICAL DIVISION OF DIR	ECT FLOW
WEST PUEBLO	0.00	AND OFF-CHANNEL PARTICIPAL	NTS
COLORADO	13143.35		
HOLBROOK	6247.82	THEORETICAL	
FORT LYON	59855.00	100,000 A.F. SYSTEM	
AMITY	0.00	28.8% OF SYSTEM	28800.00
AIVITT	0.00	71.2% OF SYSTEM	71200.00
TOTAL	79246.17		
JOHN MARTIN RESERVOIR	(2)	TOTAL 100,000 A.F. SYSTEM	100000.00
WINTER WATER PROGRAM		AMITY	2750.00
		HOLBROOK	356.00
AMITY	25867.73		1 2000
FORT LYON	4598.34	THEORETICAL	
CONSOLIDATED	4392.32	103,106 A.F. SYSTEM	
		25% OF SYSTEM	14650.04
TOTAL	34858.39	75% OF SYSTEM	43950.13
ARKANSAS @ LAS ANIMAS	TO JOHN MARTIN	TOTAL 103,106 A.F. SYSTEM	58600.17
TRANSIT LOSS	1096.61	101AL 103,100 A.F. 3131EM	56600.17
IRANSII LUSS	1090.01		
DISTRIBUTED TOTAL	161706.17	DISTRIBUTED TOTAL	161706.17
(4) DEEL COTO DADTIOIDANI		TED IN DUEDLO DECEDVOID	

- (1) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PUEBLO RESERVOIR
- (2) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PRIVATELY OWNED OFF-CHANNEL RESERVOIRS OR PROGRAM WATER DIVERTED FOR WINTER APPLICATION
- (3) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN JOHN MARTIN RESERVOIR
- (4) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO DIRECT FLOW PARTICIPANTS
- (5) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO OFF-CHANNEL STORAGE PARTICIPANTS

TOTAL CONTENTS PUEBLO RESERVOIR: TOTAL CONTENTS JOHN MARTIN RESERVOIR:

278175.00 AF 298877.00 AF

### **WINTER WATER PROGRAM REPORT**

COLORADO DIVISION OF WATER RESOURCES
DIVISION ENGINEER WATER DIVISION TWO

NOVEMBER 15,1995 THROUGH MARCH 14, 1996

MEDI O DECERVOIR (4)			
PUEBLO RESERVOIR (1)		DIRECT FLOW ENTITIES (4)	The Control of the Co
VINTER WATER PROGRAM ST	ORAGE		
		BESSEMER 50	00.00
BESSEMER	5000.00		78.00
HIGHLINE	12000.00		00.00
XFORD	3000.00		24.00
CATLIN	9100.00		97.35
CONSOLIDATED	0.00	RIVERSIDE	
RIVERSIDE	0.00	WEST PUEBLO	0.00
VEST PUEBLO		WEST PUEBLO	0.00
	0.00	TOTAL	
COLORADO	0.00	TOTAL 378	99.35
IOLBROOK	5000.00		
ORT LYON	0.00		
MITY	0.00	STORAGE ENTITIES (5)	
OTAL	34100.00	COLORADO 223	78.91
			04.00
FF-CHANNEL STORAGE OR I	DIVERSION (2)		86.53
OR WINTER APPLICATION	210 Z. (1.01.011 (1.2)	- 1	21.12
ESSEMER	0.00	TOTAL 1396	90.56
IIGHLINE	1178.00	10171	90.56
XFORD	0.00		
ATLIN	2824.00		
ONSOLIDATED	0.00		
IVERSIDE	0.00	THEORETICAL DIVISION OF DIRECT FLOW	
VEST PUEBLO	0.00	AND OFF-CHANNEL PARTICIPANTS	
OLORADO	22378.91		
OLBROOK	13004.00	THEORETICAL	
ORT LYON	55390.00	100,000 A.F. SYSTEM	
MITY	13260.00		00.00
			00.00
OTAL	108034.91		
OHN MARTIN RESERVOIR (3)		TOTAL 100,000 A.F. SYSTEM 1000	00.00
INTER WATER PROGRAM ST	ORAGE	AMITY 27	50.00
			56.00
MITY	14892.61	3	50.00
		TUEODETICAL	
ORT LYON	14829.99	THEORETICAL	
ONSOLIDATED	4651.03	103,106 A.F. SYSTEM	2000
			20.98
OTAL	34373.63	75% OF SYSTEM 558	62.93
RKANSAS @ LAS ANIMAS TO	JOHN MARTIN	TOTAL 103,106 A.F. SYSTEM 744	83.91
RANSIT LOSS	1081.37		
ISTRIBUTED TOTAL	177589.91	DISTRIBUTED TOTAL 1775	89.91
RANSIT LOSS	1081.37		

- (1) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PUEBLO RESERVOIR
- (2) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PRIVATELY OWNED OFF-CHANNEL RESERVOIRS OR PROGRAM WATER DIVERTED FOR WINTER APPLICATION
- (3) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN JOHN MARTIN RESERVOIR
- (4) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO DIRECT FLOW PARTICIPANTS
- (5) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO OFF-CHANNEL STORAGE PARTICIPANTS

TOTAL CONTENTS PUEBLO RESERVOIR: TOTAL CONTENTS JOHN MARTIN RESERVOIR:



#### WINTER WATER PROGRAM REPORT

COLORADO DIVISION OF WATER RESOURCES DIVISION ENGINEER WATER DIVISION TWO

NOVEMBER 15, 1994 THROUGH MARCH 14, 1995 (all units acre-feet)

DUEDI O DESERVOID (4)			5
PUEBLO RESERVOIR (1)	4.07004.05	DIRECT FLOW ENTITIES (4)	
WINTER WATER PROGRA	MISTORAGE		
		BESSEMER	8853.72
BESSEMER	8853.72	HIGHLINE	11888.69
HIGHLINE	11888.69	OXFORD	2866.13
OXFORD	2866.13	CATLIN	13062.33
CATLIN	13062.33	CONSOLIDATED	
CONSOLIDATED	0.00		3940.94
RIVERSIDE		RIVERSIDE	189.43
	189.43	WEST PUEBLO	378.86
WEST PUEBLO	378.86		
COLORADO	1211.72	TOTAL	41180.10
HOLBROOK	4176.45	1	11100.10
FORT LYON	0.00		
AMITY	0.00	STORAGE ENTITIES (5)	
		OTORAGE ENTITIES (5)	
TOTAL	42627.33	COLORADO	17054.47
		HOLBROOK	14118.93
OFF-CHANNEL STORAGE	OR DIVERSION (2)	FORT LYON	57488.73
FOR WINTER APPLICATION	N	AMITY	23907.19
			23907.19
BESSEMER	0.00	TOTAL	112569.32
HIGHLINE	0.00		
OXFORD	0.00		
CATLIN	0.00		
CONSOLIDATED	0.00		
RIVERSIDE	0.00	THEORETICAL DIVISION OF DIRECT	
WEST PUEBLO	0.00	AND OFF-CHANNEL PARTICIPANT	S
COLORADO	15842.75		
HOLBROOK	9942.48	THEORETICAL	
FORT LYON	57488.73	100,000 A.F. SYSTEM	
AMITY	2535.13	28.8% OF SYSTEM	00000 00
Zavirr	2555.15		28800.00
TOTAL	85809.09	71.2% OF SYSTEM	71200.00
		TOTAL 100,000 A.F. SYSTEM	100000.00
JOHN MARTIN RESERVOIR WINTER WATER PROGRAM		AMITY	2750.00
		1	2750.00
AMITY	20720.23	HOLBROOK	356.00
FORT LYON	0.00	THEODETICAL	
		THEORETICAL	
CONSOLIDATED	3820.74	103,106 A.F. SYSTEM	
		25% OF SYSTEM	12660.86
TOTAL	24540.97	75% OF SYSTEM	37982.57
ARKANSAS @ LAS ANIMAS	TO JOHN MARTIN	TOTAL 103,106 A.F. SYSTEM	50643.42
TRANSIT LOSS	772.03	100,1007.1.0101EW	50045.42
DISTRIBUTED TOTAL	153749.42	DISTRIBUTED TOTAL	153749.42
(1) REFLECTS PARTICIPAN	TS WITH PROGRAM WA	IN PUEBLO RESERVOIR	

(1) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PUEBLO RESERVOIR

(2) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN PRIVATELY OWNED OFF-CHANNEL RESERVOIRS OR PROGRAM WATER DIVERTED FOR WINTER APPLICATION

(3) REFLECTS PARTICIPANTS WITH PROGRAM WATER IN JOHN MARTIN RESERVOIR

(4) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO DIRECT FLOW PARTICIPANTS

(5) REFLECTS TOTAL PROGRAM WATER ATTRIBUTABLE TO OFF-CHANNEL STORAGE PARTICIPANTS

TOTAL CONTENTS PUEBLO RESERVOIR: TOTAL CONTENTS JOHN MARTIN RESERVOIR:

183082 AF 112494 AF

### WINTER WATER PROGRAM

#### SUMMARY

NOV 15, 1993 THRU MAR 14, 1994

DIRECT FLOW ENTITIES (4)  BESSEMER HIGHLINE OXFORD CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO  TOTAL	8875.20 11917.54 2873.09 13094.02 3950.50 189.89 379.78
CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO TOTAL	11917-55 · 2873.09 13094.02 3950.50 189.89 379.78
CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO TOTAL	2873.09 2873.09 13094.02 3950.50 189.89 379.78
CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO TOTAL	2873.05 13094.02 3950.50 189.89 379.78
TOTAL	13094.02 3950.50 189.89 379.78
TOTAL	3950.50 189.89 379.78 41280.02
TOTAL	189.89 379.78
TOTAL	189.89 379.70 41280.02
TOTAL	379.70 41280.00
TOTAL	41280.02
TOTAL	41280.0
	41200.0
=======================================	
STORAGE ENTITIES (5)	
001 00400	
COLORADO	17108.97
HOLBROOK	14163.72
FORT LYON	57694.69
AMITY	2/0/4.0
\$150 (10 m) (10 m)	24041.7
IATOT	117000 17
	113009.13
THEODERICAL DIVIDION OF THE	
THEORETICAL DIVISION OF DIRECT	FLOW
AND OFF-CHANNEL PARTICIPANTS	
***************************************	
THEODETICAL	
100,000 A.F. SYSTEM	
28.8% OF SYSTEM	28800 00
71.2% OF SYSTEM	71200.00
	71200.00
TOTAL 100,000 A.F. SYSTEM	100000.00
AUITY	
WILLI	2750.00
HOLBROOK	356.00
THEORETICAL	
107 106 A F CYCTCH	
103, 100 A.F. STSTEM	
25% OF SYSTEM	12795.79
75% OF SYSTEM	38387 36
	00.1000
TOTAL 103,106 A.F. SYSTEM	51183.15
	COLORADO HOLBROOK FORT LYON AMITY  TOTAL THEORETICAL DIVISION OF DIRECT AND OFF-CHANNEL PARTICIPANTS  THEORETICAL 100,000 A.F. SYSTEM 28.8% OF SYSTEM 71.2% OF SYSTEM TOTAL 100,000 A.F. SYSTEM AMITY HOLBROOK THEORETICAL 103,106 A.F. SYSTEM 25% OF SYSTEM 75% OF SYSTEM TOTAL 103,106 A.F. SYSTEM TOTAL 103,106 A.F. SYSTEM DISTRIBUTED TOTAL

### , WINTER WATER PROGRAM

#### SUMMARY

NOV 15, 1992 THRU MAR 14, 1993

PUEBLO RESERVOIR (1) WINTER WATER PROGRAM STORAGE		DIRECT FLOW ENTITIES (4)		
BESSEMER HIGHLINE OXFORD CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO COLORADO	9362.10 12571.34 3030.71 13812.36 0.00 200.31 400.61 1649.21	BESSEMER HIGHLINE OXFORD CATLIN CONSOLIDATED RIVERSIDE WEST PUEBLO	9362.10 12571.34 3030.71 13812.36 4167.22 200.31 400.61	
HOLBROOK FORT LYON AMITY	6987.73 0.00 0.00	TOTAL	43544.64	
TOTAL	48014.36	STORAGE ENTITIES (5)		
TOTAL 48014.36 WINTER WATER PROGRAM OFF-CHANNEL STORAGE (2) OR DIVERSION FOR WINTER APPLICATION		COLORADO HOLBROOK FORT LYON AMITY	18268.50 15118.11 61174.97 25303.17	
BESSEMER HIGHLINE DXFORD CATLIN CONSOLIDATED RIVERSIDE	0.00 0.00 0.00 0.00	TOTAL		
VEST PUEBLO	0.00	THEORETICAL DIVISION OF DIRECT FLOW AND OFF-CHANNEL PARTICIPANTS		
FORT LYON AMITY	60957.36 0.00	THEORETICAL 100,000 A.F. SYSTEM 28.8% OF SYSTEM 71.2% OF SYSTEM		
TOTAL	85707.03 ============	TOTAL 100,000 A.F. SYSTEM	100000.00	
JOHN MARTIN RESERVOIR (3) JINTER WATER PROGRAM STORAGE		AMITY HOLBROOK	2750.00	
MITY ORT LYON ONSOLIDATED	24531.40 210.97 4040.12	THEORETICAL		
		25% OF SYSTEM 75% OF SYSTEM	45227.54	
AS ANIMAS TO JOHN MARTIN	905.51	75% OF SYSTEM  TOTAL 103,106 A.F. SYSTEM  DISTRIBUTED TOTAL	60303.39	
ISTRIBUTED TOTAL	163409.39	DISTRIBUTED TOTAL	163409.39	
2) REFLECTS PARTICIPANTS WIT RESERVOIRS OR PROGRAM WAT	TH PROGRAM WATER IN PRIVATER DIVERTED FOR WINTER A TH PROGRAM WATER IN JOHN THE ATTRIBUTABLE TO DIRECTED ATTRIBUTABLE TO DESCRIPTION OF THE PROGRAM WATER ATTRIBUTABLE PROGRAM OF THE PROGRAM	TELY OWNED OFF-CHANNEL		

## **APPENDIX G-1**

### GROUNDWATER USE & MEASUREMENT ORDERS ISSUED IN 1997

# Groundwater Use and Measurement orders issued

1997 Irrigation year

Water District	Measuremen	t Use Rules	Total Orders Sent
10	11	5 128	243
11	19	8 196	394
12	13	0 130	260
13	7	9 79	158
14	7	7 69	146
15	5	2 43	95
16	6	3 63	126
17	13	8 60	198
18	3	1 31	62
19	. 7	7 77	154
67	10	5 100	205
79	3	1 31	62
Totals	10	96 1007	2103

Thursday, March 05, 1998

## **APPENDIX G-2**

**RULE 5 AREA WELL INVENTORY** 

# Rule 5 area well inventory

Water District	Wells inventoried
10	106
11	206
12	138
13	65
14	3
16	12
17	208
18	37
19	101
79	43
Total:	919

Thursday, March 05, 1998