

INTRODUCTORY STATEMENT
ANNUAL DIVISION ENGINEER'S REPORT
IRRIGATION DIVISION NO. 2

1983

IRRIGATION DIVISION NUMBER 2 CONSISTS OF ALL LANDS IRRIGATED FROM DITCHES AND CANALS DIVERTING WATER FROM THE ARKANSAS RIVER AND ITS TRIBUTARIES. THE DIVISION IS COMPOSED OF THIRTEEN WATER DISTRICTS (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 66, 67 and 79) COMPRISING THE COUNTIES OF EL PASO, CHAFFEE, LAKE, FREMONT, CUSTER, PUEBLO, PARK, LAS ANIMAS, TELLER, CROWLEY, OTERO, BENT, PROWERS, BACA AND KIOWA.

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I. WATER ADMINISTRATION

PAGE

A. Current Water Year

1. What were your accomplishments for the year?

- a. Winter Water continued. 1-2
- b. Compact accounting system continued 3
- c. High water routed to John Martin without incident. 3
- d. Ground Water well inspections handled 3
- e. Clear Creek water and situation handled 4
- f. Model lands irrigated without incidents 4
- g. Delivered Wildlife water to John Martin Permanent Pool. 5

2. What had been the Division's involvement in the water user community for the year?

- a. Events Division Engineer was invited to participate in.
 - 1. Rocky Mountain Farmers Union Church Conference - Fowler 5
 - 2. Water Use and Management Seminar - Pagosa Springs 5
 - 3. Daughters of the American Revolution Meeting - Colorado Springs. 5
- b. Events Division Engineer participated in on a Regular basis.
 - 1. Winter Water Meetings - La Junta. 5
 - 2. Southeastern Colorado Water Conservancy District monthly meetings 6
 - 3. Lower Arkansas Water Management Association monthly meetings - Lamar. 6
 - 4. Arkansas River Compact Administration 6
- c. Other events the Division Engineer participated in 1983.
 - 1. Hearing Officer in contested well permit case - Denver. 6
 - 2. Four States Irrigation - Summer Tour '83 - Wyoming 6
 - 3. Meetings with District #67 water users to determine River Call. 6
 - 4. Meetings to resolve disputes between U.S.B.R. and the State 6

- 3. What particular issues impacted, or may impact, existing policies, statutes, administrative practices, etc., and what was the nature and degree of the impact?
 - a. Federal cases 7
 - b. U.S.B.R. suit - McCarren Act. Pt. 2 7
 - c. Huston case and nature of non-tributary water 7
 - d. Ground Water rules and regulations. 7

- 4. What problems, concerns, issues, tasks, etc. could not be addressed during the year? Why?
 - a. No decree on Winter Water 7
 - b. No settlement of Kansas controversy 8
 - c. No conclusion to Bureau of Reclamation case 8
 - d. No Reservoir accounting computer or program 8
 - e. No movement on office or W. D. #11 reorganization 8-9

- 5. What has been the effect of workload changes (if any) upon the staff? Provide supporting documentation. What was the cause for the change.
 - a. Much more staff time has been spent in explaining policy to both public and staff personnel.
 - b. I have proposed a reorganization of W.D. #11 that should increase efficiency and save on travel as well as effect administration where in the past there was none. 9

B. Coming Year

- 1. What particular problems and concerns will impact division operations? Why?

- 2. Are there particular problems and concerns that will not be addressed? Why?
 - a. Probably all of the above, mainly the reason is that they are complex and take a lot of time, there seems no progress is being made.

3. What projected work items are planned for the division staff?

- a. Learn to operate our computer terminal. 10
- b. Better organize office files. 10
- c. Make more relevent stream measurements. 10
- d. Check every ditch flume for accuracy. 10
- e. Decrease "turn around" time for well and stock pond field inspections with more detailed and complete inspections forms. 11
- f. All non-exempt wells contacted for compliance with Rules & Regs. 11
- g. All wells that have meters entered in data bank with at least owner-supplied diversion rates 11
- h. Someone to completely understand FAPAS. 11

4. What are your priorities in terms of goals and objectives?

- a. Streamline Reservoir accounting
- b. Be more responsive to inquiries.
- c. Be better prepared in Water Court.

II. RECOMMENDATIONS

A. Policies (New or Change)

1. Water Administration

- a. Make firm policy on Ground Water, Rules and Regs, and Aug. Plans of Well Associations. 12
- b. Better define 'well' and 'spring'. 12

2. Personnel

- a. Implement re-organization of Pueblo office and W.D. #11
- b. Implement up-grades

3. Budget

- a. Give each Division a figure number and let us handle - to include hydro stream maintenance 12

4. Litigation Activities

- a. Water Court Resume 12

- B. Personnel Changes
 - 1. We need to fill vacancies 13

- C. Budgetary Priorities
 - 1. Comsat or satellite communication system.
 - 2. Have dam inspector in Division office 13

- D. Administrative Practices
 - 1. Have regular trips by Jay Jones to Division office. 13
 - 2. Have Denver staff check in with Division office when in area or making dam or well inspections. 13

- E. Legislation
 - 1. Define well and spring by statute. 14

- F. Other
 - 1. Maybe have regular staff meetings 3 or 4 times a year with just State Engineer and the Division Engineers. 14

III. STATISTICAL INFORMATION

- A. Transmountain Diversions. 15
- B. Storage Water 16
- C. Water Diversions. 17-18
- D. Court Activities. 19
- E. Office Administration 20
- F. River Calls 21-22
- G. Compact Deliveries. 23
- H. Administration of Plans for Augmentation. 24
- I. Summary of Hydrographic Records, 1983 25

I-A-1(a)

The Winter Water Storage Program is a voluntary program of canals and reservoir companies on the Arkansas River and its tributaries, designed to enable irrigators to make more efficient use of the waters by storage in the Winter instead of direct irrigation, which was the past practice.

The 1982-83 Winter Storage Program was the seventh voluntary storage program and was approved by the Board of Trustees at a regular meeting in La Junta on July 16, 1982. The Board approved a program exactly as it operated in 1981-82 with the exception that the Las Animas Consolidated Company be assigned the percentage they had participated in during previous years. The percentages of the other upstream ditches were modified to accommodate the Las Animas Consolidated Ditch.

The 1982-83 program began November 15, 1982 and continued through March 14, 1983 for 120 days. The 1983 Winter Program used the following formula:

- A. By foregoing winter diversion, the water will be accounted for by diversion headgates or by storage in Pueblo Lake on a percentage basis of the total river production.
- B. A division of total river production below 100,000 A.F. entitled the four storage reservoirs 70 percent of the river flow and the seven ditches with direct flow rights, 30 percent of the river flow.
- C. The next 2,750 A.F. went to the Amity Canal.
- D. After the system reaches 102,750 A.F., 2,250 A.F. of water was released pro-rata from winter water stored in seven upstream of Pueblo reservoirs and credited to the Colorado Canal in Pueblo Reservoir.
- E. A division of total river production above 105,000 A.F. entitled the four storage ditches 75 percent of the river flow and the seven ditches with direct flow rights, 25 percent of the river flow.

1982-83

Winter Water Storage Summary Sheet
(Pueblo Reservoir)

<u>CANAL</u>	<u>ACTUAL STORAGE</u>
Bessemer	10821.76 A.F.
High Line	14533.84 A.F.
Oxford	3505.86 A.F.
Catlin	15982.59 A.F.
Consolidated	4810.24 A.F.
Riverside	200.00 A.F.
West Pueblo	501.17 A.F.
Otero	1201.27 A.F.
Colorado	12504.66 A.F.
Holbrook	10506.16 A.F.

Winter Water Summary Sheet
(Off Channel Storage)

Colorado	9671.54 A.F.
Holbrook	7456.00 A.F.
Fort Lyon	69595.05 A.F.
Amity	26626.00 A.F.

In this summary, the figures are from November 15, 1982 through March 14, 1983. The Amity Canal had their Winter Water delivered to John Martin, the storage began November 19, 1982 in John Martin and ended March 14, 1983.

The first release of Winter Water from Pueblo Reservoir was June 2, 1983 to the Riverside Ditch. The larger releases started in Mid August and gradually decreased through November 1, 1983.

I-A-1(b)

The Plan of April 24, 1983 was not terminated by either Colorado or Kansas despite threats by the Fort Lyon Canal. This is the plan that allows water to be transferred from the Conservation Pool to account pools, to be called by the downstream ditches including Kansas on demand. The entire plan is considered by all responsible water users to be quite beneficial and a good example of enlightened water management. Kansas, despite the real threat of a suit over the operations of Trinidad, has never threatened to terminate the account system. All accounts including Kansas, excepting the Amity Canal had carryover water to 1984. Amity has other water in their accounts that they carry over. There is a complete breakdown of this in the Operations Secretary's report which was sent to the State Engineer on November 15. The Division Engineer was re-elected Operations Secretary of the Arkansas River Compact at the Annual Meeting on December 13 and given a budget of \$6,100.00 for the year 1984-85. I foresee no major problem in the accounting which is handled by the technician in Las Animas, as the 5 years of experience have pretty well gotten the bugs worked out.

I-A-1(c)

Water was stored beginning June 16, 1983 in the Flood Pool at Pueblo Reservoir that belonged to John Martin Conservation Pool. We begin delivering John Martin water from Pueblo Reservoir as soon as the channel conditions permitted. We try to maintain 6,000 A.F. at the Avondale gaging station, which is downstream from Pueblo Reservoir. We, curtailed diversions, when the total calculated inflows were getting less than the total calculated ditch diversions in District Nos. 14 and 17. This permitted the Flood Pool water, which was greater than the total ditch diversions, to be passed through District Nos. 14 and 17 and get into John Martin without incident. The maximum stored in Pueblo Reservoir for John Martin was 25,433.04 A.F. and all of it released by July 8, 1983.

I-A-1(d)

There were 82 applications to late register old domestic wells that were field checked. At least 3,100 miles were driven in field checking late registration applications.

Fourteen replacement permits for decreed irrigation wells were issued; all of these required a field investigation.

The only litigation activity involving ground water in 1983 was the Sutphin case (83CW196). The illegal well is now capped and a stipulation resolving the issue is forthcoming. Several inspections were made of this well to see that the well had a welded cap.

I-A-1(e)

The Board of Water Works, City of Pueblo, owner of Clear Creek Reservoir upon recommendation by the State Engineer's Office Dam Section hired Black & Veatch, consulting engineers. The consulting engineers were to develop a plan and specification for Clear Creek Reservoir to improve upon the embankment and spillway.

The scope of construction work was as follows:

1. Improving the stability of the downstream slope by providing drainage and adding to the downstream cross section.
2. Providing additional spillway capacity by increasing spillway freeboard by five feet and, constructing additional overflow sections by arming the existing embankment with properly graded and placed riprap.

The reservoir was lower in the middle of August 1983 so work could begin on the dam. During the stripping operation, the contractor encountered saturated material. This saturation developed a cavity on the dam itself and the contractor immediately placed pit run material in the saturated cavity. Right after this, the City released all the water to empty Clear Creek Reservoir. Work continued until completion without any further incident. At the present time, the restriction of storage imposed in a letter of September 29, 1982, is rescinded. Only observations and monitoring will occur until the reservoir is completely full.

I-A-1(f)

I-A-1(g)

The Board of Water Works of Pueblo agreed to sell 9,000 A.F. of Twin Lakes transmountain water to the Division of Wildlife for the Permanent Pool in John Martin in July, 1983. This water was released from the City of Pueblo account in Pueblo Reservoir on July 9, 1983 at the rate of 2,514 c.f.s. and stopped July 10, 1983. With all the transportation losses accounted for, it net 7,311.87 A.F. in the Permanent Pool in John Martin. The Board of Water Works also agreed to sell another 5,248.02 A.F. of transmountain water to the Division of Wildlife in September of 1983. This water was released from Clear Creek Reservoir starting on September 29, 1983 and stopped on October 10, 1983. This net, with all transportation losses accounted, 4,215.15 A.F. in John Martin Permanent Pool. The maximum account in the Permanent Pool in John Martin was on October 15, 1983 for 13,480.61 A.F.

I-A-2(a)

In March of 1983 the Division Engineer was a guest speaker for the Farm Church Conference in Fowler. The Rocky Mountain Farmers Union was the sponsor for the event. It proved to be extremely beneficial to both the Division Engineer and the group that participated in this event. The media coverage on the conference was extensive, both Denver newspapers and a television crew were on hand. An event such as this can be very educational due to the range in topics discussed. Land Use was the keynote topic and the Division Engineer was there to answer questions as to how water management plans, such as Winter Storage and the accounting procedures used in Trinidad and John Martin, can help them.

In March the Southwestern Water Conservation District invited the Division Engineer to speak at their Water Use and Management Seminar in Pagosa Springs. The event lasted 2 days and was attended by a variety of government officials and other water experts. One of the most informative topics discussed was the concept of using satellite communications on gauging stations. The concept was well received by the users of the area.

On February 5, the Division Engineer was invited to speak at a meeting of the Daughters of the American Revolution at a Saturday luncheon meeting in Colorado Springs. The members were quite informed on water administration and had numerous questions after the speech. Meetings such as this to non-water oriented groups broadens the understanding of the public as a whole.

I-A-2(b)

In preparation for the 1983-1984 Voluntary Winter Storage Program, several meetings were held in La Junta. The Division Engineer and his assistant have managed and helped design this Program since it was created several years ago. The meetings that are held in La Junta are important because all of the entities involved in the Winter Storage Program must unanimously approve to participate and not object to the others doing so. The Division Engineer's presence at these meetings is vital because he can prove the benefits of the program to the representatives and can answer any questions and concerns they may have over the management and accounting of the program.

I-A-2(b) cont'd

The Division Engineer is on the agenda each month to make a presentation to the Southeastern Water Conservancy District's Board of Directors regular meetings, and has been for several years. Other than the current reservoir and storage accounts figures, the data he reports at the meetings may vary from month to month depending on the current activities of the Division. It is extremely important for the Division Engineer to be present because he can explain Division policies and procedures for the board members. The media is always at the meetings, and in the past that has proved to be very beneficial to the Division.

Each month, a representative of Division 2 staff attends the regular meeting of the Lower Arkansas Water Management Association in Lamar. We attend these meetings to answer questions on ground water regulations and keep the Board informed of Division policies, the water commissioner also keeps the records for the acre feet of augmentation water pumped.

There were approximately 10 meetings of the Arkansas River Compact held in the year 1983. Of those 10, three of these were Special Meetings held to discuss the Colorado-Kansas dispute over the operation of Trinidad Reservoir, which is still being investigated to date (I have expanded on this issue in another part of this report). The Annual Meeting was held in December and the Division Engineer was re-elected to serve another term as Operations Secretary, with a budget of \$6,100 for the year. The spectators at the Annual Meeting included a number of water users, from both Colorado and Kansas, representatives from ditch companies and other areas of water management.

I-A-2(c)

In 1983 the Division Engineer was appointed to serve as Hearing Officer in a contested well permit case to prepare the record for presentation to the State Engineer for his decision. This was the first time that the Division Engineer was permitted to perform a task such as this. Although the preparation lasted a few days, it proved to be educational in terms of legal process.

The Division Engineer had the opportunity to participate in the Four States Irrigation - Summer Tour '83. The event was held from September 7-8. It was in the Wyoming area and included several reservoirs, rivers, a national fish hatchery and many other educational and historic sites. The opportunity to meet contemporary water officials, Bureau personnel and water users in a non-adversary setting was quite educational.

At the request of the Arkansas Valley Ditch Association, the Division Engineer and his staff members took an active part in the preparation of a stipulation agreement on the River Call with the Water District #67 ditches and the upper ditches. The agreement is necessary to allow the accounting procedures in John Martin to continue from year to year.

Several meetings were held during 1983 to attempt to arrive at a stipulation agreement between the United States Bureau of Reclamation and the State. The meetings were attended by members of the U.S.B.R., Division 2 staff, the Attorney General's office and the Department of Justice attorney representing the Bureau. No such agreement has been reached as of yet, though the State Engineer has instructed the State Attorney General and the Division Engineer to begin work on such agreement. I don't think we are too far apart.

I-A-3(a)

The cases filed for Adjudication by the United States will have a short term effect on the Division staff by causing an increased workload for the Referee's consultations alone and any field investigation. The majority of the claims appear either exempt from administration, or any call would be considered futile. The larger cases that will have an impact will be tried by the Court. The smaller cases should be handled in the same fashion we handle any other. I would estimate it would take 1 FTE about a year to field check and make a meaningful consultation.

I-A-3(b)

The suit filed by the State seeking an injunction against the Bureau has been dragging along and has been set for trial in March. The State Engineer authorized David Ladd to draft a stipulated settlement in October 1983; a draft stipulation was presented January 1, 1984. The Bureau, through the Project Manager, has indicated a willingness to settle on what I perceive to be our terms. While such a case will be valuable in the future, to test the Court's perception of both facets of the McCarren Act, I do not think this case is a good one for that because it is complicated by the exchange issues and the amount of disputed water is quite small. If we lose on these issues, the impact will be enormous since we will have lost control of better than half of the water in the river.

I-A-3(c)

The Huston case has been settled and the freeze or stay on all non-tributary well cases is set for Hearing so it can be lifted. When this happens there is a large backlog of cases that will need to be consulted and tried. These are generally not complex cases except for the volume should not make too much impact on our administration.

I-A-3(d)

The recent Supreme Court ruling in the San Luis Valley's Rules and Regulations case may change the State Engineer's policy on administration of Division Two's Rules and Regulations, particularly concerning the acceptance of the largest undeclared augmentation plans.

I-A-4(a)

The Voluntary Winter Water Storage program has been operated successfully for the last several years, and despite repeated urging from both the State and Division Engineers, has only gotten so far as a first draft of a Decree. I can give no reason for this failure to enter Court and get a decree that would protect everyone.

I-A-4(b)

I-A-4(c)

As I mentioned in I-A-3(b), this case was not concluded in spite of the Bureau apparently agreeing to our position. I think we should proceed before there is a turnover in Bureau personnel.

I-A-4(d)

There was no reservoir accounting summary or program developed this year on the computer supplied by the Arkansas River Compact. This was because of the lack of personnel with computer knowledge in our office to develop such a program. We hope to work closely with the Denver personnel and train people in our office to run and develop programs in the upcoming year.

I-A-4(e)

We would like to reorganize District 11, which extends from above Leadville to approximately 5 miles east of Salida. This district has increased in its administrative duties with the completion of the Fryingpan Project. We also feel there could be a savings in mileage and per diem if we could reorganize, even though there will not be an increase in personnel.

At the present time we have a water commissioner and a part time deputy, both residing in Salida, also a part time deputy residing in Buena Vista. We dispatch a hydrographer to District 11 from the Pueblo office at least twice a month, travelling approximately 95 miles enroute to District 11. The hydrographer stays over at least one night per trip, sometimes more. The water commissioner living in Salida travels approximately 100 miles once a week to change charts on the transmountain diversions. This usage is for a 4½-month period.

Our proposal is as follows:

1. Leave the water commissioner in Salida to administer the South Arkansas and Arkansas.
2. Move the deputy in Salida to Leadville. This move would enable us to better monitor the Fry-Ark Project, more administration of the ditches in the area and save mileage involving changing the transmountain charts.
3. Leave the deputy in Buena Vista where he now resides.

4. Transfer a hydrographer to the Buena Vista area. We could save mileage, per diem, make more measurements and have more time to upgrade stations and aid the commissioners in the area, as well as some Fry-Ark accounting and field checking.

This would not create any new positions, only utilize the manpower we have for a more efficient administration.

I-A-5(b)

I have proposed a re-organization of W. D. 11 that should increase efficiency and save on travel as well as effect administration, where in the past there was none. This change is due in part to the transfer of native water rights from the Leadville area to Aurora, and the requirement for increased administration due to the Fry-Ark Project and its related exchanges. The sub-office in Buena Vista would be a central location and would function in much the same manner as the Las Animas sub-office.

I-B-1(a)

The State of Kansas hired Simons, Li and Associates (a consulting firm in Colorado) to investigate the following:

1. The Operation of Trinidad Reservoir which includes the Trinidad Operation Plan.
 - a. Model Decree.
 - b. The transfer of water from one account to another in the same reservoir.
 - c. Thatcher flow and computations.
2. The Operation of the Arkansas River.
 - a. Re-regulating the natural flows of the Arkansas River.
 - b. The operation of Turquoise, Twin Lakes and Pueblo Reservoirs.
 - c. Flood peaks and their routing.
 - d. Exchange.

I-B-1(b)

The two principle augmentation organizations for well owners are Colorado Water Development and Protective Association (C.W.D.P.A.) and the Lower Arkansas Water Management Association (L.A.W.M.A.). 1984 would be a good year for both of those to become decreed augmentation plans. The issue of what return flow is acceptable for an augmentation may have to be resolved in Court.

I-B-1(c)

The U.S.B.R. case is still pending. The initial suit was filed approximately three years ago. Part of that time frame was taken in deciding which Court would hear the case. The State Water Court will hear the case. To refresh your memory, it was an order by the Division Engineer to make a release out of one reservoir and the U.S.B.R. refused to do so.

There is a pre-trial scheduled for January 1984. We are hoping the State and the U.S.B.R. can reach a stipulation to settle this dispute. If the suit is not settled, there will be a lengthy court trial which will surely affect the administration of the river.

I-B-3(a)

We plan to have our staff devote more time operating the computer. We hope some of our personnel can either take a mini course to familiarize themselves with the computer or be trained by Denver personnel.

I-B-3(b)

Division clerical staff is presently re-organizing files for the Division Engineer. This will help all staff members in locating information.

I-B-3(c)

Budget restrictions always seem to limit the number of stream measurements. Sometime in the future it would be nice to be able to make more than the minimum number of measurements necessary for administration and daily flow records. Among this worthwhile goal of more relevant stream measurements is a travel time and transit loss study on Fountain Creek.

I-B-3(d)

Every ditch that has a measuring flume should be checked at least once a year.

I-B-3(e)

The "turn around" time in field checking wells is now about one week from the time a request for a field investigation comes to the attention of the Pueblo office to the time the Pueblo office sends the reports to Denver. This is due mainly to time in transit by mail. There is however always room for improvement.

Since most stock tank and erosion control dam applicants contact the water commissioner first, and if he approves the application, it is sent to Pueblo and then sent to Denver the same day. The only "turn around" time at the Division Two Level is the time that it takes the water commissioner to inspect the tank or dam and mail the application to Pueblo.

I-B-3(f)

There are approximately 3,400 decreed non exempt wells in Division Two. 600 wells are in the L.A.W.M.A. augmentation plan; 900 wells are in the C.W.P.D.A. augmentation plan; and 100 are in other augmentation plans. Of the remaining 1,800 wells, 400 wells are pumping under signed statements of compliance of the three-day rule. As time and money are available for well administration, the owners of wells not yet contacted will be contacted.

1,800 remaining

I-B-3(g)

There are 375 wells in Division Two that have their pumpage reported in the Data Bank. This number will increase as more wells are drilled that are in decreed subdivision augmentation plans. The remaining 3,125 wells that have meters will be reported in the Data Bank.

I-B-3(h)

During the year 1983, FAPAS replaced the performance rating sheets used in the past. We have made several different attempts at completing these forms. The employees do not understand the new forms. It would be extremely beneficial if the personnel department or our administrative staff from Denver could give us a better understanding of the procedure in completing the forms. This could be done in a workshop of some kind for the supervisors in each division. We do not know if the forms we have sent to Denver are completed. It is important for each employee to know how well he is doing on the job, or in what areas he needs improvement. The way the FAPAS forms are now, it leaves them confused.

II-A-1(a)

As was mentioned earlier in this report, a firm policy on what return flows are acceptable for well augmentation water. Given the number of entities importing water into Division Two and the dollar value of that type of water, this could be a controversial issue.

II-A-1(b)

At the State Engineer's request for suggestions for new legislation, I recommend we seek a better definition by statute of what constitutes a well. There is generally an argument when we try and contend an improved spring is in fact a well, or a mine drainage that is put to some use needs a well permit or decree, and we have a classic case where a sump beside a stream was issued a well permit and gets to take advantage of the three-day rule, even though it is not 30 feet from a flowing surface stream.

II-A-3(a)

One of the easiest ways to keep the budget under control at Division Two would be to be given a dollar amount that would be the limit to be spent on travel and operating, including the maintenance of gaging stations.

II-A-4(a)

A great deal of both time and effort are expended in Court related activities. It would be valuable to me to have one of the more experienced A.G.'s conduct seminars on Court procedures, and protocol. Even after 25 years being around courts and lawyers there is one hell of a lot I don't understand. Maybe a course to maybe even include mock trials would be valuable. It would be helpful to understand some of the basic rules of evidence, and get a feel for what you can and can't get away with in testimony, what to expect from various attorneys, this sort of thing. It would be valuable to me to have just one A.G. primarily handle our work. Once we get to know and learn to work with this person, I always feel more secure. There are a number of cases where the State entered Statements of Opposition where other water right owners also appeared. While there is always a danger of the two sides striking some sort of deal we would not like, I think we should not enter such cases unless there is a clear case of un-administrability.

II-B-1

At the current time, Division 2 has 4 vacancies to be filled. One has been vacant since August and one since the beginning of October, the other two are fairly recent vacancies. The districts that need a water commissioner appointed to them are: District 13, which is in the western portion of the Division; District 67, which is in the eastern part of the Division; and Districts 15 and 79, which are the closest to the Division office. Although no action has been taken to fill these vacancies, we are still hoping to enter the 1984 irrigation season with a complete staff, and trained commissioners in these positions.

II-C-1

The COMSAT program showed how valuable real time ditch and stream flow data can be in water administration. We are looking forward to the new program and the computer terminal.

II-C-2

We would like to have a dam inspector assigned to each division office. The employee should be trained in Denver and then transferred to the field office. This employee would work closely with the water commissioners in the training of dam inspections. Other assignments would include frequent trips to restricted dams and a better knowledge of the division to which the employee is assigned.

II-D-1

Because of the confusion on FAPAS, and other matters, it may be beneficial if our Administrative Officer out of Denver make routine visits to each division to discuss fiscal, personnel and other pertinent matters with Division Engineer and his staff. In doing so, we can thereafter inform our personnel in the field, in a timely manner, of any policy changes that may affect them.

II-D-2

The Division 2 staff would like to see better communication between the Denver office staff and the divisions. Although now it is common practice for a dam inspector to contact a water commissioner when he is in his district, it would also be beneficial if the Denver personnel contact the Division office in advance when they are planning on making a visit to the Division. If this policy can be implemented, the Division Engineer will be informed of the action to be taken and may result in both personnel and travel efficiencies. Quite often there is information known to either the water commissioner or the Division office that would aid the inspector and may even save him time and mileage.

II-E-1

There are now two statutory definitions of wells. One is 37-90-103(21); "well" means any structure or device used for the purpose or with the effect of obtaining ground water for beneficial use from an aquifer. This is the definition used to determine the need for a well permit. The other is 37-91-101(17); "well" means any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed, when the intended use of such excavation is for the location, diversion, artificial recharge, or acquisition of ground water, but such term does not include an excavation made for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying, or for inserting media to repressure or natural gas bearing formation or for storing petroleum, natural gas or other products. This is the definition used to determine the need for driller's license.

37-82-102, 37-82-103, 37-82-104 and 37-82-105 are laws that concern springs, however, there is no statutory definition of spring.

To avoid going to court every time there is a controversy on whether a structure is a "developed spring" or a "well", it would be useful to have a statutory definition on each.

II-F-1

While it may be expensive and in some cases time consuming, I for one got a great deal of benefit from the mini-meeting we had in the Spring and would think 3 or 4 times a year might be a good idea. We need to know the current positions and thinking in Denver so we can better represent the State Engineer's policies.

TRANSMOUNTAIN DIVERSIONS SUMMARY - INFLOWS

WD	NAME	STREAM	RECIPIENT				WD	SOURCE
			PREVIOUS YR		YR OF RECORD			
			A.F.	DAYS	A.F.	DAYS		
14	CITY OF PUEBLO ¹	TENNESSEE CREEK	1,120	158	1,986	146	11	EWING DITCH
14	CITY OF PUEBLO ¹	TENNESSEE CREEK	3,780	152	3,611	142	11	WURTZ DITCH
14	CITY OF PUEBLO ¹	ARKANSAS RIVER	1,920	139	2,610	122	11	COLUMBINE DITCH
14	PUEBLOS RESERVOIR ²	ARKANSAS RIVER	128	124	467	75	11	LARKSPUR DITCH
11	SUGAR LOAF RESERVOIR ³	LAKE FORK CREEK	75,490	116	87,500	130	11	BOUSTEAD TUNNEL
14	CITY OF PUEBLO ⁴	LAKE FORK CREEK	6,910	172	9,280	184	11	BUSK-IVANHOE TUNNEL
14	HIGHLINE CANAL ⁵	LAKE FORK CREEK						
14	CITY OF PUEBLO	LAKE FORK CREEK	21,290	145	22,750	95	11	HOMESTAKE TUNNEL
14	CITY OF PUEBLO	LAKE FORK CREEK	54,360	365	59,210	365	11	TWIN LAKES TUNNEL

¹ CITY OF PUEBLO IS OWNER AND RECIPIENT OF THIS WATER
² FRY-ARK WATER PUEBLO RESERVOIR RECIPIENT
³ FRY-ARK WATER SUGAR LOAF RESERVOIR RECIPIENT
⁴ TOTAL ALLOWABLE STORAGE DIVIDED BETWEEN THE CITY OF PUEBLO AND THE HIGHLINE CANAL
⁵ TOTAL ALLOWABLE STORAGE DIVIDED BETWEEN CITIES OF PUEBLO, COLORADO SPRINGS, AND AURORA

RESERVOIR STORAGE SUMMARY

WD	RESERVOIR NAME (MAJOR RESERVOIRS BY NAME)	STREAM SOURCE	PREVIOUS YR **		YR OF RECORD		END. YR A.F.				
			BEG. YR A.F.	%	BEG. YR A.F.	%***					
11	SUGAR LOAF RES.	LAKE FORK CREEK	90,087		57,822		121,386	34.7	71,479	23.6	126,797
11	TWIN LAKES RES.	LAKE CREEK	32,939		24,100		48,284	46.6	34,786	44.3	53,750
11	CLEAR CREEK RES.	CLEAR CREEK	7,908		8,985		8,368	5.82	9,120	1.50	4,701
14	PUEBLO RES.	ARKANSAS RIVER	32,879		110,010		62,413	89.8	219,050	99.1	221,017
19	TRINIDAD RES.	PURGATOIRE RIVER	45,784		53,453		43,288	-5.77	56,178	5.10	41,208
67	JOHN MARTIN RES.	ARKANSAS RIVER	17,009		52,956		12,531	-35.7	81,403	53.7	81,403
	TOTAL OF ALL OTHERS	ARKANSAS RIVER BASIN	20,099		15,862		42,013	109	122,245	671	153,231
	TOTALS	ARKANSAS RIVER BASIN	246,705		323,188		338,283		522,853		682,107

*APRIL 1st used as the start of the irrigation season.
 ** No percentage figures for IYR '82 due to new format.
 *** Figures are percentages of more water available over previous year, negative sign indicates a decreased amount available

WATER DIVERSION SUMMARIES BY DISTRICT

ID	TOTAL DITCHES REPORTING				ESTIMATED NUMBER OF DITCH VISITATIONS	TOTAL DIVERSIONS - AF -	TOTAL DIVERSIONS TO STORAGE - AF -*	IRRIGATION		AVERAGE AF PER /
	ACTIVE		INACTIVE					TOTAL DIVERSIONS - AF -	NUMBER OF ACRES IRRIGATED	
	WA	NWA	NU	NR						
10	70	4	206		2,000	97,646		55,334	11,612	4.77
11	Dist. 11 Diversions Est.					153,600		153,600	18,852	8.15
12	231	42	93		4,200	315,101		200,700	12,580	15.95
13	Dist. 13 Diversions Est.					17,170		17,170	28,033	0.61
14	21	24	25		420	443,521		409,263	30,992	13.21
15	67	18	42		1,200	40,578	19,202	13,676	4,600	2.97
6	71	60	79		280	29,372		24,254	4,700	5.16
7	Only Major Ditches Included				250	675,283	78,403	596,880	140,000	4.26
8	18		24		260	13,175		13,085	7,700	1.70
9	113		132		1,470	102,698		98,318	30,000	3.28
6										
7	35	25	116		300	245,915		233,268	76,837	3.04
8	104	28	90		1,400	33,190		33,190	5,000	6.64

* Winter Storage Water Accounted for in Districts Used

WATER DIVERSION SUMMARIED BY DISTRICT IN ACRE FEET (Continued)

ID	TRANS-MOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	STOCK	MUNICIPAL	DOMESTIC	INDUSTRIAL	RECREATIONAL	FISHERY	COMMERCIAL
10		3,500*		30,064	11,413		823		12.0
11									
12				41,985	2,530	69,886			
13									
14				26,467		7,791			
15				72	489	7,139			
16				5,112			6.0		
17									
18			12.0						
19			617	3,763			78.0		
56									
8									
57				12,647					
19									

* CITY OF AURORA

WATER COURT ACTIVITIES

No. Applications for Decrees	146
No. Consultations with Referee	140
No. Decrees Issued by Water Court	115

Type of Decree

Surface Water	7
Ground Water	20
Reservoir	5
Transfer	0
Alternate Point	1
Change of Use	1
Plan for Augmentation	5
In-Stream Flow	4
*Other	74

No. New Structures in Decrees

Types of Structures

Ditches	4
Reservoirs	9
Wells	23
Other	8

* Includes 35 Contuned Conditional Decrees
17 Cancelled Conditional Decrees
17 Conditional Decrees Made Absolute

Month December, 19 83

WATER DIVISION NO. II

ACTIVITY SUMMARY

ACTIVITY	MONTHLY TOTAL	TO DATE
Number of professional and technical staff		7
Number of clerical staff		2
Number of Water Commissioner FTE assigned (full and part-time)	17	18
Number of decreed surface rights		*8,000
Number of surface rights administered		8,000
Number of wells		***23,170
Number of plans for augmentation		55
Number of consultations with Referee	7	164
Number of Water Court appearances	15	85
Number of meetings with water users	**45	700
Number of meetings to resolve water related disputes	900	12231
Number of contacts to give public assistance on water matters (including telephone inquiries and an estimated number of contacts made by water commissioners)		
<hr/> <p>* Estimate from Tabulation.</p> <p>** All meetings were to resolve water problems.</p> <p>*** Includes Domestic.</p>		

RIVER CALL

<u>DATE</u>	<u>CALL</u>		<u>DISTRICT OR DISTRICTS</u>
7-7-82	5-1-1887	Bessemer	10, 11, 12, 13, 14, 15, 17, 67
7-13-82	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
7-14-82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
7-18-82	2-21-1887	Amity	10, 11, 12, 13, 14, 15, 17, 67
7-27-82	5-1-1887	Bessemer	10, 11, 12, 13, 14, 15, 17, 67
7-29-82	1-25-1906	Ft. Lyon Storage	10, 11, 12, 13, 14, 15, 17,
8/2/82	9-25-1889	Holbrook #17	10, 11, 12, 13, 14, 15, 17
8/3/82	1-6-1890	High Line #3	10, 11, 12, 13, 14, 15, 17
8/5/82	5-1-1887	Bessemer	10, 11, 12, 13, 14, 15, 17
8/8/82	1-6-1890	High Line #3	10, 11, 12, 13, 14, 15, 17
8/10/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
8/11/82	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 17, 67
8/12/82	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 17 67
8/13/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
8/16/82	1-6-1890	Highline #3	10, 11, 12, 13, 14, 15, 16, 17, 67
8/18/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
8/20/82	1-6-1890	Highline #3	10, 11, 12, 13, 14, 15, 17, 67
8/21/82	10-15-1907	Mt. Pisgah	10, 11, 12, 13, 14, 15, 17, 67
8/24	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 17
8/31/82	3-1-1887	Ft. Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
9/7/82	2-21-1887	Amity	10, 11, 12, 13, 14, 15, 17, 67
9/13/82	3-9-1898	Meredith	10, 11, 12, 13, 14, 15, 17, 67
9/14/82	10-15-1907	Mt. Pisgah	10, 11, 12, 13, 14, 15, 17, 67
9/17/82	8-30-1893	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
9/19/82	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
9/21/82	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 17, 67
9/23/82	3-9-1898	Lake Meredith	10, 11, 12, 13, 14, 15, 17, 67
9/28/82	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
9/30/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
10/1/82	3-9-1898	Lake Meredith	10, 11, 12, 13, 14, 15, 17, 67
10/4/82	8-31-1893	Fort Lyon #3	10, 11, 12- 13, 14, 15, 17, 67
10/6/82	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
10/13/82	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 17, 67
10/18/82	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
10/19/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 19, 67
10/29/82	1-6-1890	High Line	10, 11, 12, 13, 14, 15, 17, 19, 67
11/3/82	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
11/12/82	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
11/13/82	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
11/14/82	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 17, 67
11/15/82	10-15-1907	Mt. Pisgah	10, 11, 12, 13, 14, 15, 17, 67
3/15/83	12-3-1884	Catlin	10, 11, 12, 13, 14, 15, 17
3/16/83	3-9-1898	Lake Meredith	10, 11, 12, 13, 14, 15, 17
3/30/83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
3/31/83	3-9-1898	Lake Meredith	10, 11, 12, 13, 14, 15, 17
4/1/83	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17, 67

RIVER CALL

<u>DATE</u>	<u>CALL</u>		<u>DISTRICT OR DISTRICTS</u>
4-4-83	3-9-1898	Meredith	10, 11, 12, 13, 14, 15, 17
4-11-83	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17
4-12-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
4-13-83	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17
4-14-83	8-30-1893	Hobrook #2	10, 11, 12, 13, 14, 15, 17
4-16-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
4-22-83	3-9-1898	Meredith	10, 11, 12, 13, 14, 15, 17
4-24-83	1-25-1906	Fort Lyon Storage	10, 11, 12, 13, 14, 15, 17
4-26-83	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 17
5-9-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
5-12-83	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 16, 17, 18, 79
5-14-83	3-9-1898	Meredith	10, 11, 12, 13, 14, 15, 16, 17, 18
5-16-83	6-9-1890	Colorado	10, 11, 12, 13, 14, 15, 16, 17, 18
5-21-83	1-25-1906	Fort Lyon Storage	10, 11, 12, 13, 14, 15, 16, 17, 18, 19
5-23-83	3-9-1898	Meredith	10, 11, 12, 13, 14, 15, 16, 17, 18, 19
5-28-83	1-25-1906	Fort Lyon Storage	10, 11, 12, 13, 14, 15, 16, 17, 18, 19
6-2-83	1948	John Martin	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 67
7-8-83	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 67
7-19-83	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 16, 17, 18, 19
7-21-83	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17
7-22-83	5-1-1887	Bessemer	10, 11, 12, 13, 14, 15, 16, 17, 67
7-23-83	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 16, 17, 67
7-24-83	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 16, 17, 67
7-28-83	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 16, 17, 19, 67
7-31-83	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 16, 17, 19, 67
8-3-83	8-31-1893	Fort Lyon #3	10, 11, 12, 13, 14, 15, 17, 67
8-7-83	1-25-1906	Fort Lyon Storage	10, 11, 12, 13, 14, 15, 17, 67
8-10-83	8-1-1896	Kicking Bird	10, 11, 12, 13, 14, 15, 17, 67
8-12-83	8-30-1893	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
8-13-83	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
8-14-83	6-9-1890	Colorado	10, 11, 12, 13, 14, 15, 17, 67
8-16-83	1-6-1890	Highline	10, 11, 12, 13, 14, 15, 17, 67
8-21-83	8-1-1896	Kickingbird	10, 11, 12, 13, 14, 15, 17, 67
8-22-83	11-14-1887	Catlin 2nd	10, 11, 12, 13, 14, 15, 17, 67
8-23-83	8-30-1893	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
8-24-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
8-25-83	11-14-1887	Catlin 2nd	10, 11, 12, 13, 14, 15, 17, 67
8-27-83	6-9-1890	Colorado Canal	10, 11, 12, 13, 14, 15, 17, 67
8-29-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
9-1-83	5-1-1887	Bessemer	10, 11, 12, 13, 14, 15, 17, 67
9-3-83	6-9-1890	Colorado	10, 11, 12, 13, 14, 15, 17, 67
9-4-83	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17, 67
9-7-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 67
9-20-83	2-26-1887	Oxford #2	10, 11, 12, 13, 14, 15, 17, 67
9-23-83	2-21-1887	Amity	10, 11, 12, 13, 14, 15, 17, 67
9-30-83	12-3-1884	Catlin	10, 11, 12, 13, 14, 15, 17, 67
10-6-83	2-21-1887	Amity	10, 11, 12, 13, 14, 15, 17, 67
10-31-83	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17, 19, 67
11-15-83	10-15-1907	Mt. Pisgah	10, 11, 12, 13, 14, 15, 17

Releases to State of Kansas, A.Ft.

	Kansas Agreement Account	Kansas Transit Loss Account	Total Release to Kansas
May	14281.20	2085.15	16366.35
June	0	0	0
July	29025.22	2914.53	31939.75
August	2400 Hrs., 8-21 24992.10	2400 Hrs., 8-21 7.44	2400 Hrs., 8-21 24999.54
TOTALS	68298.52	5007.12	73305.64

AUGMENTATION PLANS

There were no major problems in administering the Augmentation Plans this year. Those plans that require land to be removed from irrigation and that land to be monumented are all in compliance with their decrees. The Glen Terra Plan is still providing more water to the River than the subdivision wells are pumping. 38.21 acre feet of Twin Lakes water was released this year for the 12 Plans of Augmentation that use Twin Lakes water.

STATION	TOTAL DISCHARGE	Maximum Discharge,		Minimum Discharge
		C.F.S.		
Lake Fork Creek below Sugar Loaf Res.	66,100	730	2.85	
Lake Creek above Twin Lakes Res.	148,330	1,940	6.0	
Lake Creek below Twin Lakes Res.	238,900	1,970	6.0	
Arkansas River @ Granite	471,370	4,130	98	
Clear Creek above Clear Creek Res.	55,300	478	5.0	
Clear Creek below Clear Creek Res.	N/A	N/A	N/A	
Cottonwood Creek @ Buena Vista	33,620	458	1.4	
Chalk Creek @ Nathrop	49,880	922	2.0	
Akrnasas River @ Salida	654,510	5,150	164	
Arkansas near Wellsville	734,550	6,200	219	
Grape Creek near Westcliffe	52,580	528	5.0	
Arkansas River @ Canon City	792,600	6,370	201	
Arkansas River @ Portland	897,600	7,130	329	
Arkansas River below Pueblo	689,100	5,500	76	
Arkansas River near Nepesta	786,900	5,960	76	
Arkansas River near Fowler	784,900	6,182	155	
Huerfano River near Redwing	26,620	169	10	
Cucharas River @ Boyd Ranch near La Veta				
Purgatoire River @ Trinidad	40,450	403	5.6	
Luining Arroyo nr. Model	108,600	844	1.8	
Van Bremer Arroyo near Model	136	9.96	0	
Purgatoire River near Thatcher	N/A			
Arkansas River at La Junta	N/A			
Purgatoire River at Las Animas	N/A			
Purgatoire River at Nine Mile Dam	N/A			
Muddy Creek @ Muddy Creek Res.	N/A			
Rule Creek off Highway 101	N/A			