INTRODUCTORY STATEMENT

ANNUAL DIVISION ENGINEER'S REPORT

IRRIGATION DIVISION NO. 2

1984

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

II. RECOMMENDATIONS

III. STATISTICAL INFORMATION

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I-A-I(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 water by storage in the Winter instead of direct irrigation, which was the past practice.

The 1983-84 Winter Storage Program was the eighth voluntary storage program, within the last nine years and was approved by the Board of Trustees at a regular meeting in La Junta on October 14, 1983. The Board approved a program exactly as it operated in 1982-83.

The 1983-84 program began November 15, 1983 and continued through March 14, 1984 for 120 days. The 1984 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.

1. Calculation of the transit loss would be based on the Livingston Formula.

2. Water destined for Amity would be taken at John Martin Dam and would not be depleted by transit loss from Las Animas gage station. Any transit loss that occured from the Las Animas gage to John Martin would come from the other participating ditch companies with the exception of the Fort Lyon, whose pro-rata share would be paid by the S.E.C.W.C.D.

1983-84

Winter Water Storage Summary Sheet
(Pueblo Reservoir)

CANAL	ACTUAL STORAGE
Bessemer	11174.30 A.F.
High Line	15007.30 A.F.
Oxford	3620.06 A.F.
Catlin	16503.18 A.F.
Consolidated	4966.93 A.F.
Riverside	150.00 A.F.
West Pueblo	574.01 A.F.
Otero	1240.41 A.F.
Colorado	15747.31 A.F.
Holbrook	10463.03 A.F.
Fort Lyon	2949.44 A.F.

Winter Water Summary Sheet
(Off Channel Storage)

Colorado	7305.23 A.F.
Holbrook	8221.60 A.F.
Fort Lyon	70389.47 A.F.
Amity	27733.07 A.F.

In this summary, the figures are from November 15, 1983 through March 14, 1984. The Amity Canal had their Winter Water delivered to John Martin, the storage began November 15, 1983 in John Martin and ended March 4, 1984.

The first release of Winter Water from Pueblo Reservoir was May 15, 1984 to the Riverside Ditch. There were small amounts of Winter Water released from August 14 thru August 18, and September 19 thru October 4, 1984. There remained 75552.37 A.F. of 1983-1984 Winter Water in Pueblo Reservoir on October 31, 1984.

I-A-1(b)

The May 9, 1980 Operating Plan for John Martin was used again in 1983-84. All water was transferred to accounts with no major problems. There were three new problems. The first was a cooperative agreement between the Fort Lyon and Amity to store summer water in John Martin when the Adobe Creek Reservoir owned by the Fort Lyon was drawn down due to an unsafe toe drain (more on this in another section). This is the first time, in my recollection, the Fort Lyon and Amity ever agreed on anything. I hope it is an omen of good things to come.

The Highland-Ninemile ditches were not willing to accept the Winter Storage Program offered by Kansas and are not able to participate in a program of winter water in John Martin of any kind. They have threatened to not honor a call from Water District 67 when one comes. There was a special account granted for the Las Animas Golf Course which was filled by transmountain water. This was not made permanent and will expire when the water is gone or by next November. I agree with this as I don't feel we should be supplying plans of augmentation for individual users who cannot have a water right.

The Keesee Ditch owned by Jake Broyles has an application in Water Court and before the Commission to move his water first to storage in John Martin, then to Pueblo Reservoir for sale to any buyer (none specified). This case is in limbo with nothing being done. The Compact asked for the engineering which is supposed to be nearly completed.

On the 6th, a meeting was held to explain to Robert Jensen of the Granada Irrigation district that we do not feel we have any jurisdiction in the dispute with his ditch board over the scheduling of water runs within the ditch. Present were the entire ditch board and the mayor of Holly (he apparently didn't believe me as this is the same person who jumped Woodard about this in November).

All the numbers as well as the narrative report and a copy of the oral presentation to the December 3 and 4 Compact Meeting were submitted to the State Engineer on November 15, 1984, and are incorporated herein by reference. The Division Engineer was elected Operations Secretary for the year 1985-86 with no dissenting votes and was again budgeted $6,100.

On the 6th of March, the Division Engineer and staff met in Lamar with the water commissioner from Kansas and negotiated an agreement on how the State-line deliveries are to be met. The agreement is similar to last year and is included in my Operations Secretary's report.

I-A-1(c)

During the winter months of 1984 the Bureau of Reclmation permitted water to be stored in the Joint Use Pool. The Joint Use Pool is a space above the Conservation Pool which can be used during winter months but must be evacuated by April 15 for flood protection.

The maximum contents reached in Pueblo Reservoir was 283207.00 A.F. This was obtained on March 14, 1984.

On April 15, 1984, we began to release contract space water from the Bureau. This was to bring the contents of Pueblo Reservoir to the top of the Conservation Pool, which is 264702 A.F. During the month of April we had to release 16089 A.F. of Bureau contract space water and 772 A.F. of 1982-83 Winter Water. During May we needed to release 26722 A.F. of 1982-83 Winter Water. This water was released to the River at the maximum safe channel capacity.

I-A-1(d)

There were 95 applications to late register old domestic wells that were field checked. At least 4,000 miles were driven in field checking late registration applications.

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

In 1984, 22 well permits were issued for decreed plans of augmentation; while those are household use only wells they are not exempt and were given non-exempt permit numbers.

I-A-1(e)

The inflow to the Recreation Pool consisted of storage in August, under Division of Wildlife Muddy Creek Decree, and the purchase of trans-mountain water from Clear Reservoir in October.

The Division of Wildlife Muddy Creek Decree was in priority on August 22 & 23. They were able to store in the Recreation Pool under this Decree a total of 78.09 A.F. The Board of Water Works of Pueblo agreed to sell 2600 A.F. of Clear Creek trans-mountain water to the Division of Wildlife for the Permanent Pool in John Martin in October 1984. This water was released from Clear Creek Reservoir at 1000 Hr. on October 18, 1984 at a rate of 300 c.f.s. and stopped at 1853 Hrs. on October 22. With all the transportation losses accounted for, it netted 2122.41 A.F. in the Permanent Pool in John Martin. The maximum account in the Permanent Pool in John Martin was on October 26, 1984 for 13230.84 A.F.

I-A-1(f)

The 1984 Tabulation of Water Rights and the 1984 Abaondoment List were published and distributed in July. 410 entries were on the Abandonment List; 200 notices were mailed to individuals who were the last known owners of these abandoned rights (some owned several rights). As of 1 Jan 1985, 74 Protests to the Abandonment List have been filed in the Water Court; 5 Protests of clerical nature to the Tabulation have been received by the Division office.

I-A-2(a)

On the 29th Water for Colorado, a new organization, mainly of the Denver Water Board had a seminar and meeting in Lamar. The Division Engineer was asked to speak on Compact issues. The press in both Colorado and Kansas was present as well as top officials of the Denver Water Board and all City, County, and some State legislators.

On January 27, the Division Engineer was invited to appear at a farmer's convention at the Vineland Methodist Church sponsored by the Farm Bureau. The discussion was mainly on the consequence of moving agricultural water to the cities. My main topic was the administratibility of such things and the fact that it was logically possible to move water in this manner.

On February 16, the Division Engineer and staff attended an evening meeting of the District 10 water users in Fountain and discussed the Helenberg water applications. We told them the State was enforcing these cases because of the nontributary water involved and we were concerned about the exchanges and how they might expect to affect decreed water rights. District 10 also agreed to protest these applications.

A meeting of the Lake County Soil Conservation District was held on the 17th of March and I appeared on a panel with the SECWCD, City of Colorado Springs, and U. S. Bureau of Reclamation. Explained how the maximum flows in Lake Fork were arrived at and answered questions from the water users on general administrative policy.

1-A-2(b)

1. There were a total of 10 winter water meetings held to report on progress of the 1983-84 program which the Division Office keeps all accounting records and to draft a proposed decree for filing in Water Court. The concept has not varied much from the original that was devised in about 1972. The basic concept is similar to both Trinidad and John Martin as they have converted their historic direct flow water rights to storage in the winter months.

2. The Division Engineer is and has been since about 1966 on the agenda for the monthly Southeastern Conservancy District meetings. The routine report consists of an accounting for reservoirs and stream flows and answering questions of board members, visitors, and the media which is always present and does quote the Division report. We attended 19 such monthly and special meetings.

3. There are 5 conservancy districts in the Division, not all have monthly meetings. However, the Division Engineer, or one of his staff, attend if there are problems or policies to be explained. I attended 4 other conservancy meetings during the past year.

4. The Arkansas River Compact takes up a lot of the Division and staff time. Last year there were a total of 21 meetings directly concerning the Compact issues. Not counting the 2-day main Compact meeting itself. The issues with Kansas seem to be reaching a climax and if Kansas legislature appropriates funds, we can look for a suit being filed in March of 1985.

1-A-2(c)

There were about 18 meetings with the District 14, 17, and 67 water users to work out when the call from District 67 would come through John Martin Reservoir. This became necessary when the 1980 Operating Plan was adopted and the reservoir could become theoretically dry even though it would still have water in it. The procedure very closely reproduces historic practice and has a term of at least two years thus avoiding the yearly battle and last minute agreement.

The Division staff participated and helped lead three major tours in 1984. First was the entire Kansas Compact delegation who went from Garden City to Rocky Ford. There was another short tour by Kansas of the Highland-Nine Mile area. The Division Engineer also went with Colorado Springs and Twin Lakes on two tours of the west slope distribution systems. These tours are of value to the entire Division as they allow contacts in a neutral atmosphere of some of the policy

makers. I have had one on one discussions with the State Engineer of Kansas, the director of Colorado Springs utilities, the presidents of all major canal companies and most of their close associates. While these are time consuming and sometimes expensive, I think the return is well worth it.

We finally got the dammed case with the Bureau settled. They seem to have accepted almost all of our points, and I think it was a major victory. This case dragged on for years and was a major point of contention between the State and Bureau.

A seminar and press conference was called by the City of Canon City on potential for flooding from runoff. The Water Conservation Board, Corps of Engineers, and the Division Engineer explained what we could do and the potential of flooding from snowmelt and runoff. The Civil Defense and Weather Bureau haveissued flood watches--all unnecessarily.

A meeting of the Amity and Buffalo ditch boards was held to discuss with the Division Engineer and the District the operation of Pueblo Reservoir and the methods and transit losses of project water. Also to explain the Corps' shut off of John Martin to search for some bodies, which shut off had dried up the entire Amity system.

Participated in a tour of Kansas and Colorado ditches with members of the Kansas delegation and all major ditch companies. Had an opportunity to discuss at some length operations of the Arkansas with the Kansas State Engineer and the local representatives as well as all major ditch companies. On the 24th, met with the Corps of Engineers to explain possible consequence of an unplanned closure of John Martin--no one liked it when I told them there could be consequences.

On the 27th in Las Animas, we met with the Fort Lyon and some District 17 water users and discussed at some length (11:00 P.M.) the Operations of John Martin, the Amity, and Fort Lyon's accounts due to the safety problem in Adobe Creek Reservoir.

The City of Colorado Springs sponsors a tour for selected officials each fall to tour Twin Lakes system and the Homestake west slope collection structures. I had an opportunity to meet and socialize with State Representatives, the Colorado Springs Press, top municipal officials, and water users on the west slope.

I-A-3(a)

Our proposal of last year to re-organize W. D. 11 came to pass this year. We transferred our Water Resource Engineer from Pueblo to Buena Vista and everything is going well. We transferred the Salida Deputy position to Leadville. This position is vacant now but we hope to have someone working by Spring.

I-B-1(a)

The Arkansas River Compact has been consuming more and more of the Division time and effort. The Division Engineer is and has been elected Operations Secretary and as such we keep all records and issue all orders to the dam tender as well as ditch companies. The meetings are getting more frequent with two or more a month being common. The preparations, as well as out of state travel, are time consuming and expensive. The Compact does allocate a sum of money ($6,100) each year. What I would like to propose is they fund an F.T.E., an engineer, for my office in place of this cash money. We then could re-structure the Division Office to spread these, as well as other, duties among the entire staff.

I-B-1(b)

The two principle augmentation organizations for well owners are Colorado Water Development and Protective Association (C.W.D.P.S.) and the Lower Arkansas Water Management Association (L.A.W.M.A.) 1985 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.

Two major augmentation decrees were awarded in 1984. Case 82CW180 was for a large subdivision that was in Division 2 and Division 1. Case 81CW229 was for 41 municipal wells on Fountain Creek.

I-B-2(a)

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

I-B-2(b)

The "turn around" time in field checking wells is still 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. In the case of emergency replacement of a well this can generally be done in one working day.

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-2(c)

There are approximately 3,400 decreed non exempt wells in Division Two. 500 wells are in the L.A.W.M.A. augmentation plan, 600 wells are in the C.W.P.D.A. augmentation plan and 250 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. It should be noted that more than 200 non-exempt wells were not pumped this year.

I-B-2(d)

There are 420 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 3,000 wells that have meters will be reported in the Data Bank.

I-B-2(e)

During the year 1984, PACE replaced FAPAS, the performance rating sheets used in the past. 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 forms are now, it leaves them confused. To date we have not received the PACE forms or instructions.

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 2 and the dollar value of that type of water, this could be a controversial issue.

II-B-1

During 1984 Division 2 hired 2 full time water commissioner, one in Dist. 13 and one in Dist. 66 & 67. We also hired one part time commissioner in Dist. 79. We have 3 vacancies in Division 2 at the present time. One deputy position in Dist. 12, one deputy position in Dist. 11 and one full time water commissioner in Dist. 16. The Administrative Clerk Typist has been hired as the 1042 Water Commissioner and a new Administrative Clerk Typist will come on board in mid-January.

II-C-1

The Sutron program will provide us with real time ditch and stream flow data. This data will aid us in the water administration in the Arkansas basin. We are looking forward to using the satellite system 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.

This year we had a incident on Blue Lake where many man hours were taken up by both our water commissioner and a dam inspector from Denver. If a dam inspector was assigned to the division office we could have sent him to inspect Blue Lake daily. That way we could have kept track of construction daily and had a man in the office that was an expert if future problems occured on Blue Lake.

II-D-1

The Division 2 staff would like to see better communications between the Denver office staff (which includes dam inspectors, well inspectors and Attorney General's staff) and the Division. It would be beneficial if the Denver personnel would 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 Denver staff and may even save him time and mileage.

II-E-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 Summer and would think a couple of 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

RECIPIENT							SOURCE	
WD	NAME	STREAM	PREVIOUS IYR		IYR OF RECORD		WD	STREAM
			A.F.	DAYS	A.F.	DAYS		
14	CITY OF PUEBLO[1]	TENNESSEE CREEK	1,986	146	2,700	133	11	EWING DITCH
14	CITY OF PUEBLO[1]	TENNESSEE CREEK	3,611	142	5,730	139	11	WURTZ DITCH
14	CITY OF PUEBLO[1]	ARKANSAS RIVER	2,610	122	3,190	130	11	COLUMBINE DITCH
14	PUEBLO RESERVOIR[2]	ARKANSAS RIVER	467	75	572	106	11	LARKSPUR DITCH
11	SUGAR LOAF RESERVOIR[3]	LAKE FORK CREEK	87,500	130	107,600	140	11	BOUSTED TUNNEL
14	CITY OF PUEBLO[4] HIGHLINE CANAL	LAKE FORK CREEK	9,280	184	9,760	178	11	BUSK-IVANHOE TUNNEL
14 10 2	CITY OF PUEBLO[5] CITY OF COLORADO SPRINGS CITY OF AURORA	LAKE FORK CREEK	22,750	95	27,740	100	11	HOMESTAKE TUNNEL
14 10	CITY OF PUEBLO CITY OF COLORADO SPRINGS	LAKE CREEK	59,210	365	8,760	366	11	TWIN LAKES TUNNEL

[1] CITY OF PUEBLO IS OWNER AND RECIPIENT OF THIS WATER

[2] FRY-ARK WATER PUEBLO RESERVOIR DISTRICT

[3] FRY-ARK 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

I.D.	RESERVOIR NAME (MAJOR RESERVOIRS BY NAME)	STREAM SOURCE	PREVIOUS IYR				IYR OF RECORD				
			BEG. IYR		BEG. IRR. SEASON*		BEG. IYR		BEG. IRR SEASON*		END IYR
			A.F.	%	A.F.	%	A.F.	%***	A.F.	%***	A.F.
11	SUGAR LOAF RES.	LAKE FORK CREEK	117738	30.69	70208	21.42	126008	3.80	94842	32.69	12793
11	TWIN LAKES RES.	LAKE CREEK	47364	43.79	35735	48.28	54910	13.72	86627	49.03	80503
11	CLEAR CREEK RES.	CLEAR CREEK	6993	-11.57	9120	1.50	1784	-78.68	6040	-33.77	2063
14	PUEBLO RES.	ARKANSAS RIVER	69139	110.28	217364	97.59	210838	89.8	282528	28.98	240714
19	TRINIDAD RES.	PURGATOIRE RIVER	45172	-1.35	55014	2.92	37158	-14.16	43604	-22.38	25200
67	JOHN MARTIN RES.	ARKANSAS RIVER	13217	-22.29	77270	45.91	67749	40.65	142746	75.36	204907
	TOTAL OF ALL OTHERS	ARKANSAS RIVER BASIN	NO. INFO. AVAIL.**				128216	109	131098	671	132342
	TOTALS	ARKANSAS RIVER BASIN					626663		787485		698522

* April 1st used as the start of the irrigation season.
** No information available due to W. W. Wheeler's possession of AVDA records.
*** Figures are percentages of more water available over previous year, negative sign indicates a decreased amount available.

WATER DIVERSION SUMMARIES BY DISTRICT IN ACRE FEET (Continued)

W.D.	TRANS-MOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	STOCK	MUNCIPAL	DOMESTIC	INDUSTRIAL	RECREATIONAL	FISHERY	COMMERCIAL
10				25,461	11,212		541		16.0
11		0							
12				39,757	7,609	64,240	8.0	3,184	
13									
14				26,632		7,247			
15				70	415	6,958			
16				3,989	239		17.0		
17								3,124	
18							52.0		
19			732	4,391			54.0		
66 & 67									
79									

WATER DIVERSION SUMMARIES BY DISTRICT

I.D.	TOTAL DITCHES REPORTING				ESTIMATED NUMBER OF DITCH VISITATIONS	TOTAL DIVERSIONS - AF -	TOTAL DIVERSIONS TO STORAGE - AF -*	TOTAL DIVERSIONS - AF -	IRRIGATION NUMBER OF ACRES IRRIGATED	AVERAGE AF PER ACRE
	ACTIVE		INACTIVE							
	WA	NWA	NU	NR						
10	70	4	206		2,000	82,559		45,329	11,612	3.90
11	District 11 Diversions Est.					134,731		134,731	18,852	7.15
12	231	42	93		4,200	276,837	1,273	213,144	12,580	16.94
13	District 13 Diversions Est.					17,328		17,328	28,033	0.62
14	21	24	25		420	422,477		388,597	30,992	12.44
15	67	18	42		1,200	31,990	3,181	16,263	4,600	3.54
16	71	60	79		280	31,845		27,398	4,700	5.83
17	Only Major Ditches Included				250	905,537	105,454	522,807	140,000	3.73
18	18		24		260	15,753	600	15,701	7,700	2.04
19	113		132		1,470	49,180		44,003	30,000	1.47
66 & 67	35	25	116		300	210,072		210,072	76,837	2.73
79	104	28	90		1,400	13,321		13,321	5,000	2.66

* Winter Storage Water Accounted for in District Used

WATER COURT ACTIVITIES

No. Applications for Decrees	210
No. Consultations with Referee	173
No. Decrees Issued by Water Court	151

Type of Decrees

Surface Water	61
Ground Water	68
Reservoir	5
Transfer	0
Alternate Point	1
Change of Use	1
Plan for Augmentation	9
Instream Flow	0
*Other	74

No. New Structures in Decrees

Ditches	7
Reservoirs	14
Wells	68
Other	40

* Includes 39 Conditional Decrees
4 Cancelled Conditional Decrees
3 Conditional Decrees Made Absolute

WATER DIVISION NO. 2

ACTIVITY SUMMARY

ACTIVITY		
Number of professional and techncial staff		7
Number of clerical staff		2
Number of Water Commissioner FTE assigned (full and part-time)		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		64
Number of consultations with Referee		173
Number of Water Court appearances		126
Number of meetings with water users		**490
Number of meetings to resolve water related disputes		
Number of contacts to give public assistance on water matters (including telephone inquiries and an estimated number of contacts made by water commissioners)		13680

* Estimate from Tabulation.

** All meetings were to resolve water problems.

*** Includes Domestic.

RIVER CALL

DATE	CALL	DISTRICT OR DISTRICTS
3-15-84	3-11-1886 Highline	10, 11, 12, 13, 14, 15, 17
3-16-84	3-1-1887 Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
3-17-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
4-9-84	6-9-1890 Colorado	10, 11, 12, 14, 15, 16, 17
4-11-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 14, 15, 17
4-12-84	1948 John Martin	10, 11, 12, 13, 14, 15, 17
4-15-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
4-17-84	6-9-1890 Colorado	10, 11, 12, 13, 14, 15, 17
4-18-84	3-1-1887 Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
4-21-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
4-25-84	3-1-1887 Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
4-26-84	9-25-1889 Holbrook	10, 11, 12, 13, 14, 15, 17
4-30-84	3-13-1890 Otero	10, 11, 12, 13, 14, 15, 17
5-1-84	6-9-1890 Colorado	10, 11, 12, 13, 14, 15, 17
5-2-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
5-3-84	10-15-1907 Mt. Pisgah	10, 11, 12, 13, 14, 15, 17
5-4-84	1948 John Martin	10, 11, 12, 13, 14; 15, 17, 19
5-7-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
5-10-84	3-1-1887 Fort Lyon #2	10, 11, 12, 13, 14, 15, 17,
5-14-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
5-21-84	1-25-1906 Fort Lyon Storage	10, 11, 12, 13, 14, 15, 17
5-23-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
5-24-84	1-25-1906 Fort Lyon Storage	10, 11, 12, 13, 14, 15, 17
5-26-84	1948 John Martin	10, 11, 12, 13, 14, 15, 17
7-9-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
7-12-84	1948 John Martin	10, 11, 12, 13, 14, 15, 17
7-18-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
7-21-84	1-6-1890 Highline #2	10, 11, 12, 13, 14, 15, 17, 67
7-23-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17, 67
7-25-84	1-6-1890 Highline #2	10, 11, 12, 13, 14, 15, 17, 67
7-27-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17, 67
7-29-84	1-6-1890 Highline #2	10, 11, 12, 13, 14, 15, 17, 67
7-30-84	8-31-1893 Fort Lyon #3	10, 11, 12, 13, 14, 15, 17, 67
7-31-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17, 67
8-7-84	8-31-1893 Fort Lyon #3	10, 11, 12, 13, 14, 15, 17, 67
8-8-84	1-6-1890 Highline	10, 11, 12, 13, 14, 15, 17, 67
8-10-84	6-9-1890 Colorado	10, 11, 12, 13, 14, 15, 17,
8-11-84	8-31-1893 Fort Lyon #3	10, 11, 12, 13, 14, 15, 17, 67
8-12-84	1-6-1890 Highline #2	10, 11, 12, 13, 14, 15, 17, 67
8-14-84	3-1-1887 Fort Lyon #2	10, 11, 12, 13, 14, 15, 17
8-17-84	1-6-1890 Highline #2	10, 11, 12, 13, 14, 15, 17, 67
8-19-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
8-20-84	1-25-1906 Fort Lyon Storage	10, 11, 12, 13, 14, 15, 17
8-22-84	1948 John Martin	10, 11, 12, 13, 14, 15, 17
9-2-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17
9-5-84	8-31-1893 Fort Lyon #3	10, 11, 12, 13, 14, 15, 17
9-9-84	8-1-1896 Kicking Bird	10, 11, 12, 13, 14, 15, 17

RIVER CALL

DATE	CALL		DISTRICT OR DISTRICTS
9-11-84	8-31-1893	Fort Lyon #3	10, 11, 12, 13, 14, 15, 17
9-12-84	1-6-1890	Highline #2	10, 11, 12, 13, 14, 15, 17, 67
9-15-84	2-21-1887	Amity	10, 11, 12, 13, 14, 15, 17, 67
9-16-84	3-1-1887	Fort Lyon #2	10, 11, 12, 13, 14, 15, 17,
9-30-84	6-9-1890	Colorado	10, 11, 12, 13, 14, 15, 17
10-2-84	9-25-1889	Holbrook	10, 11, 12, 13, 14, 15, 17
10-6-84	8-1-1-896	Great Plains	10, 11, 12, 13, 14, 15, 17
10-15-84	3-9-1898	Lake Meredith	10, 11, 12, 13, 14, 15, 17
10-16-84	1948	John Martin	10, 11. 12. 13. 14, 15, 17, 19
11-15-84	10-15-1907	Mt. Pisgah	10, 11, 12, 13, 14, 15, 17

Releases to State of Kansas

Release No. 1 to Kansas began at 1500 hours, June 6, at a rate of 500.00 c.f.s. An initial release of 200.00 c.f.s. from the Transit Loss Account was begun at the same time. The transit loss release was gradually reduced to 0 at 1500 hours, June 18. At 1500 hours, June 29, the release rate was cut to 400.00 c.f.s. At 0900 hours, July 5, the demand was cancelled.

Release No. 2 to Kansas began at 0800 hours, July 10 at a rate of 500.00 c.f.s. A transit loss release of 150.00 c.f.s. was begun at the same time. The transit loss release was reduced to 50 c.f.s. at 0900 hours, July 13, and to 0 at 0900 hours, July 16. The 500.00 c.f.s. release was cancelled at 0900 hours, July 16.

Release No. 3 to Kansas began at 0900 hours, July 20, at a rate of 500.00 c.f.s. No transit loss water was released. The 500.00 c.f.s. release was cancelled at 1330 hours, July 28.

Release No. 4 to Kansas began @ 1100 hours, Aug. 9 at a rate of 400.00 c.f.s. No transit loss water was released. The release was increased to 500.00 c.f.s. at 1100 hours, August 15. A 500.00 c.f.s. release was maintained until 0900 hours, Sept. 29, when it was cut to 300.00 c.f.s. At 1000 hours, Oct. 1, the release was cancelled.

Releases	Kansas Agreement Account	Transit Loss	Total Release Kansas
June 1 - July 5	27289.66	3273.17	30562.83
July 10 - 16	5991.83	1202.50	7194.33
July 20 - 28	8119.95	0	8119.95
Aug. 9 - Oct. 1	50504.87	0	50504.87
TOTAL	91906.31	4475.67	96381.98

AUGMENTATION PLANS

Since there was such an abundance of water this year, there were no major porblems in administering Augmentation Plans. The availability of surface water and the increase in cost of pumping has caused many wells not to have been pumped in 1984.

The two principal augmentation groups for non-exempt wells are the Colorado Water Protective and Development Association, which has 570 wells and the Lower Arkansas Water Management Association, which has 500 wells. Neither Plan has been decreed by the Water Court. It is hoped that something will be filed in Court in 1985.

In 1984, 38.21 acre feet of Twin Lakes water was released for 14 Plans of Augmentation that use Twin Lakes water.

As of January 1, 1984, there were 57 operating decreed plans of augmentation varying in size from one well to 250 wells.

There were nine new Plans of Augmentation decreed in 1984. The two biggest ones were in El Paso County. Case 82CW180 was combined with Division I case 82CW370, since the 271 house subdivision is in both Division I and Division II. Case 81CW229 is an Augmentation Plan for 41 previously decreed municipal wells to pump under the 1973 Pumping Rules and Regulations.

STATION	TOTAL DISCHARGE A.F.	Maximum Discharge, C.F.S.	Minimum Discharge, C.F.S.
Lake Fork Creek below Sugar Loaf Res.	43,470	301	2.6
Lake Creek above Twin Lakes Res.	107,900	1,000	10
Lake Creek below Twin Lakes Res.	239,900	1,320	16
Arkansas River @ Granite	504,300	2,920	55
Clear Creek above Clear Creek Res.	74,450	593	9.0
Clear Creek below Clear Creek Res. N/A			
Cottonwood Creek @ Buena Vista	48,060	474	0.88
Chalk Creek @ Nathrop	56,110	606	1.6
Arkansas River @ Salida	784,400	4,230	191
Arkansas River near Wellsville	816,700	5,100	236
Grape Creek near Westcliffe	37,990	576	8.9
Arkansas River @ Canon City	901,920	5,860	270
Arkansas River @ Portland	962,340	5,410	283
Arkansas River above Pueblo	883,350	5,050	78
Arkansas River near Nepesta	850,200	7,120	118
Arkansas River near Fowler	829,500	7,690	158
Huerfano River near Redwing	20,410	147	9.2
Cucharas River @ Boyd Ranch near La Veta	24,140	241	9
Purgatoire River @ Trinidad	80,400	396	1.1
Luning Arroyo near Model	468	78	0
Van Bremer Arroyo near Model N/A			
Purgatoire River near Thatcher N/A			
Arkansas River @ La Junta	355,800	8,500	17
Purgatoire River @ Las Animas	47,340	1,180	3.0
Purgatoire River @ Nine Mile Dam	49,200	1,172	4.3
Muddy Creek @ Muddy Creek Res.	0	0	0
Rule Creek off Highway 101	0	0	0