ROY ROMER
Governor

JERIS A. DANIELSON
State Engineer

DIVISION OF WATER RESOURCES

WATER DIVISION I

Alan D. Berryman
Division Engineer
800 8th Ave.-Room 209- ARIX Bldg.
Greeley, Colorado 80631
(303) 352-8712

January 15, 1988

Dr. Jeris A. Danielson, State Engineer
Division of Water Resources
Room 818 - Centennial Building
1313 Sherman Street
Denver, Colorado 80203

Dear Dr. Danielson:

Attached please find the Annual Report for the 1987 irrigation year.

I do appreciate the support that has been extended to me and our staff by you and all of the Denver people. I look forward to the 1988 year and to the challenges that need to be addressed.

Sincerely,

Alan D. Berryman
Division 1 Engineer

ADB:ct

ANNUAL REPORT

DIVISION NO. I

1987 IRRIGATION

NOV. 1, 1986 - OCT. 31, 1987

BY

ALAN D. BERRYMAN, DIVISION ENGINEER

INDEX

WATER ADMINISTRATION

CURRENT WATER YEAR

Accomplishments

The normal administration of water is the major accomplishment for the year due to the increasingly complex and numerous decrees coming from the courts. Since 1972 when the court numbering system began, more than 13,000 decrees have been entered, yet the manpower to administer these decrees has remained essentially the same. In 1987 the courts issued 341 decrees, received 338 applications for water rights, and this office wrote 468 summaries of consultation.

During the past water year another designated water basin was formed, that being the Crow Creek Designated Basin in old Water District One. Also, notices were sent to water users in the Cherry Creek basin informing them that the Division of Water Resources will implement strict administration on Cherry Creek beginning on April 1, 1988. The water commissioners have been working with those users to explain the ramifications of such administration and to offer assistance and advice if possible.

A review and study of administration and accounting in the South Platte above Denver was done. Some changes have been made and an ongoing review of that administration is in place. The satellite monitoring system has proven to be of great value in such administration, especially in mountainous regions. It allows the commissioners with access to the system to examine operation of the river more quickly and allows water users to become better informed as to river conditions and operation. The result is a more efficient distribution of available water.

The abandonment list is essentially done. It appears that 443 water rights or parts of them will be abandoned in Division One. Revisions and inclusions to the 1988 tabulation have been entered in the computer and the tabulation should be finalized this spring.

Involvement in Water User Community

As in past years this office has been meeting and working with water users in the division. This year extra efforts were spent in old water districts 6, 8, and 80 to solve the problems that existed in those districts.

Key Issues/Impacts

Several events occurred in the past year that impacted administration. As part of the review of administration in the Upper South Platte, administration of on-stream reservoirs was reviewed. It was discovered that underflow into such reservoirs contribute to the total inflow into the structure by ten to forty percent. Administration by gage height may be necessary in such instances and reliance on surface gages to measure inflow may be reduced.

The impact of decrees involving subordinations became apparent in a stipulated decree that was presented to the court the past year. After evaluation it appears that very few, if any, subordinations do not adversely affect other vested water rights. One problem with such stipulated decrees is that other water users do not become aware of the deals that are made and how such deals may affect their water rights. Subsequently, closer review of decrees involving subordinations will be necessary.

Exchanges are becoming increasingly important in Division One. One issue raised this year is whether a live stream must exist at all times during an exchange, even if all intervening water rights are satisfied. The outcome of this issue may impact administration of exchanges in the division.

Adjudication and administration of nontributary ground water continues to have unresolved problems. Although Senate Bill 5 has made application for nontributary water more routine, applications that require augmentation plans prior to withdrawal have created new issues. One is whether or not all affected stream systems must be augmented and another is what augmentation requirements remain if the wells cease to be pumped. An additional issue with nontributary water is whether or not pre Senate Bill 213 wells can undergo a change in use, and if so, what are the conditions and limitations necessary to allow such a change.

Unresolved Problems and Tasks

As was the case in the preceding year, three major problems were not totally resolved. These are administration and adjudication of nontributary water rights, administration of Cherry Creek, and administration of the South Platte River above Denver. Significant progress was made in all three areas; however, some work remains in each area.

Workload Changes/Effect on Staff

Workload has changed within the division. The changes have resulted from the increase in number and complexity of decrees in some districts, from the requirements of some decrees to install and maintain gaging stations to ascertain available water for the water rights involved, and from the increased effort to administer Cherry Creek and the Upper South Platte river. We are in the process of changing job descriptions to transfer more manpower to the affected areas to help meet the workload. Also, as commissioners retire, more time is spent to support personnel that are taking over those jobs. These duties are being absorbed by existing staff.

Budget Impact on Division Operations

The budget as it has existed for the past few years has not allowed us to support the water commissioners as well as is needed. Although we have a satellite monitoring system, no funds are available to provide the commissioners with computers to access the system. This greatly reduces the usefulness of the system in the field. Computers are also needed to bring the commissioners into the world of ADP. The tight budget puts increasing strain on the division to properly administer the ever increasing number of decrees in the division.

The freeze on hiring proposed by the Governor could have significant impacts on administration in this division if vacant water commissioner positions are left unfilled.

COMING WATER YEAR

Problems/Concerns

Several problems remain from last year and some new problems have arisen for the coming year. Upper South Platte River accounting will continue to require attention, the actual administration of Cherry Creek will begin in 1988, and nontributary ground water issues will continue to be resolved. These areas of concern will most likely continue beyond the upcoming year. One new concern will be that of Nebraska's renewed dissatisfaction with the South Platte River Compact. A related concern will be that of the South Platte basin management study being started by the water conservancy districts. The impending retirement of several older, experienced water commissioners raises the concern of replacing them. Lastly, managing with the tight budget conditions will continue to be a problem as far as carrying out statutory responsibilities of administration.

Concerns Not to be Addressed

It is anticipated that all concerns listed above will be addressed in the upcoming year, although it is not expected that any of them will be completely resolved.

Projected Work Items/Staff

The staff will continue to work on administration of Cherry Creek and administration of the Upper South Platte River. The division office will assume some of the administration duties on the upper South Platte river and help the commissioners implement strict administration on Cherry Creek.

All augmentation plans will be reviewed to ensure that they are being administered properly and that adequate records are being kept. Emphasis will be on the larger plans that have been in operation for several years and new, complex plans that have recently been entered.

Goals and Objectives/Division Engineer

Because of changes that have occurred and will occur in the staff from retirement and because of heavy workloads that exist in some districts, one of this year's goals will be to shift job responsibilities to assist in critical areas and to fill in vacant positions with minimal impact to water users in the affected areas. The use of performance appraisal will be increased in order to increase job efficiencies.

Administration will be reviewed to resolve existing problems and to ensure that it is being done properly. This will involve more interaction with some commissioners and close scrutiny of administrative practices. It is anticipated that this will result in better administration and more awareness of issues, policies, and administrative concerns for all employees and for water users.

STATISTICAL INFORMATION

Statistical information for the following categories follows in the order listed:

A. Administration of Plans for Augmentation

Division one has approximately 300 plans for augmentation. In 1987, about 31,240 acre-feet were released for replacement purposes. For a district by district breakdown of the releases made for augmentation, refer to the summary of water diversions for 1987 in section E that follows and to the figure that follows on the next page.

B. Transmountain Diversions

C. Storage Water

D. Water Diversions

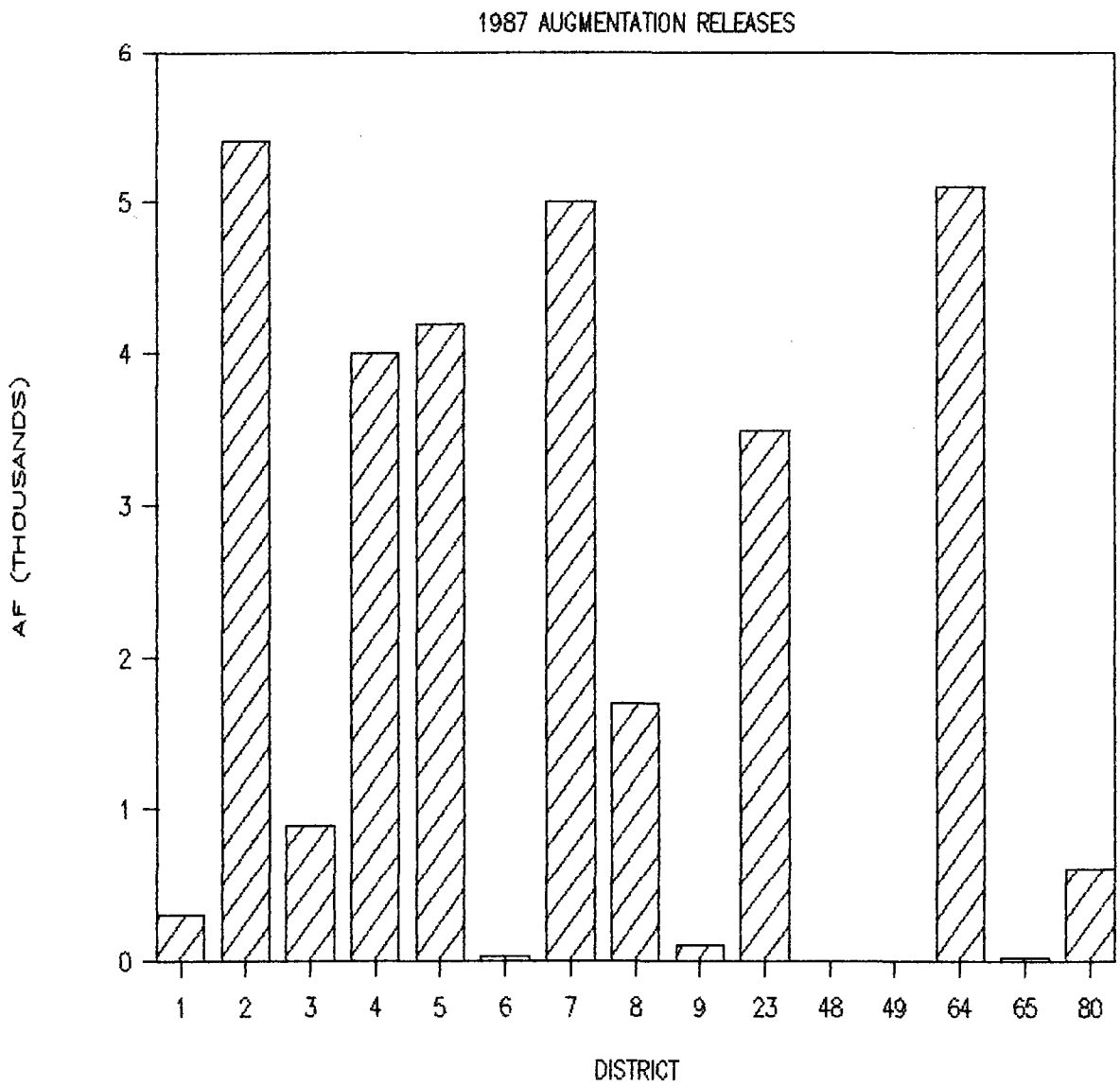
E. Court Activities

F. Office Administration

G. River Calls

H. Compact Deliveries

DIVISION 1


1987 AUGMENTATION RELEASES
AF (THOUSANDS)
0
1
2
3
4
5
6
1
2
3
4
5
6
7
8
9
23
48
49
64
65
80
DISTRICT

TRANSMOUNTAIN DIVERSIONS SUMMARY - INFLOWS

RECIPIENT							SOURCE	
WD	NAME	STREAM	1986 WATER YEAR AF	1986 WATER YEAR DAYS	1987 WATER YEAR AF	1987 WATER YEAR DAYS	WD	STREAM
03	Wilson Supply Ditch	Cache La Poudre River	790	21	962	57	48	Sand & Deadman Cr.
03	Deadman Ditch	Cache La Poudre River	0	0	626	50	48	Deadman Creek
03	Bob Creek Ditch	Cache La Poudre River	0	0	0	0	48	Nunn Creek
03	Columbine Ditch	Cache La Poudre River	0	0	0	0	48	Deadman Creek
03	Laramie-Poudre Tunnel	Cache La Poudre River	17,244	73	17,469	127	48	Laramie River
03	Skyline Ditch	Cache La Poudre River	1,377	16	0	0	48	Laramie River
03	Cameron Pass Ditch	Cache La Poudre River	0	0	148	35	47	Michigan River
03	Michigan Ditch	Cache La Poudre River	860	110	2,773	284	47	Michigan River
03	Grand River Ditch	Cache La Poudre River	24,481	124	17,246	145	51	Colorado River
04	Eureka Ditch	Big Thompson River	0	0	0	0	51	Colorado River
04	Adams Tunnel	Big Thompson River	273,800	365	246,300	365	51	Colorado River
06	Moffat Tunnel	South Platte River	80,720	365	49,970	365	51	Fraser River
07	Berthoud Pass Ditch	Clear Creek	911	91	271	55	51	Fraser River
07	Vidler Tunnel	Clear Creek	493	71	396	101	51	Montezuma Creek
23-08	Roberts Tunnel	South Platte River	980	25	14,640	120	36	Blue River
23	Boreas Pass Ditch	South Platte River	0	0	0	0	36	Indiana Creek
23	Hoosier Pass Ditch	Arkansas River	11,940	153	8,450	162	36	Blue River
23	Aurora Homestake	South Platte River	1,560	18	12,109	121	37	Homestake Creek

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 1

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Bijou #2	South Platte	2,100	23	3,900	42	3900	42	3,500	38	2,800
Empire	South Platte	19,649	52	34,930	93	17,885	47	35,069	93	17,885
Jackson	South Platte	15,083	42	34,043	96	14,784	41	33,567	94	25,567
Riverside	South Platte	6,290	10	60,849	96	17,410	27	63,113	99	12,692
Others		145	07	869	40	69	03	370	17	37

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 2

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Barr	South Platte	23,100	72	30,926	96	17,326	53	30,889	96	19,831
Bull Canal #8	Clear Creek			4,068	68	2,667	44	3,807	64	1,100
Coal Ridge	Little Dry Creek	503	77	383	59	547	83	418	64	392
Great Western	Walnut Creek	2,340	72	1,885	58	2,721	83	2,992	91	2,271
Horse Creek	South Platte	10,180	60	14,945	88	7,755	45	14,860	87	6,996
Lord	South Platte	73	02	459	13	0		418	11	120
Lower Latham	South Platte	2,578	42	5,674	91	5,457	87	5,740	92	5,458
Milton	South Platte	15,350	73	21,092	100	15,690	74	20,714	98	15,540
Prospect	South Platte	3,650	61	5,268	88	1,893	31	5,412	90	0
Quincy	South Platte	2,527	90	2,431	87	2,541	90	2,555	91	2,541
Standley	Woman Creek	33,976	80	37,951	90	33,432	78	42,000	99	31,152
Others				2,733	53	3,591	70	6,913	74	6,317

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 3

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Fossil Creek	Fossil Creek	7,373	64	5,837	51	4,151	36	8,775	76	3,967
Halligan	N Fk Poudre River	6,428	100	4,306	67	0		4,693	73	1,317
Indian Creek - aka Mountain Supply	Indian Creek	1,690	89	1,588	83	1,815	95	1,414	74	1,051
North Poudre #2	N Fk Poudre River	1,736	44	2,355	60	2,197	56	2,516	64	1,961
North Poudre #3	N Fk Poudre River	2,955	86	3,227	94	2,955	85	2,760	80	1,892
North Poudre #4	N Fk Poudre River	773	46	773	46	647	38	622	37	458
North Poudre #5	N Fk Poudre River	4,673	56	4,923	59	4,001	47	4,466	53	3,495
North Poudre #6	N Fk Poudre River	842	08	842	08	0		0		0
North Poudre #15	N Fk Poudre River	0		0		0		4,851	87	885
Park Creek	Park Creek	0		5,320	72	6,670	90	6,146	83	348
Cobb Lake	Cache La Poudre R	17,100	76	17,100	76	17,660	78	17,450	77	12,660
Seaman aka Milton Seaman	N Fk Poudre River	2,098	42	920	18	1,732	34	3,629	72	1,451
Claymore	Cache La Poudre R	409	40	688	68	177	17	942	92	110
Panhandle	Panhandle Creek	841	36	841	36	841	36	841	36	841
Seeley	Cache La Poudre R	0		1,069	69	1,069	69	1,069	69	1,048
Warren	Cache La Poudre R	990	42	922	39	1,030	43	951	40	467
Wood	Rollard Draw	1,724	55	1,866	60	1,596	51	1,997	64	1,256
Joe Wright aka Cameron	Joe Wright Creek	4,173	58	4,684	65	4,390	61	5,092	71	4,504
Rawhide	Cache La Poudre R	15,400	98	16,000	102	15,751	100	14,728	94	14,729
Horsetooth	Dixon Canyon Cr	186,511	57	134,524	89	89,823	59	141,307	92	92,234

RESERVOIR STORAGE SUMMARIES (Continued)

WATER DISTRICT 3

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Douglass	Cache La Poudre R	6,958	74	7,240	77	5,839	62	6,864	73	4,143
Windsor Res. #8	Cache La Poudre R	7,438	72	7,342	71	4,968	48	7,402	71	2,698
No. 8 Annex	Cache La Poudre R	2,596	71	2,555	70	1,582	43	2,582	70	709
Windsor Res.	Cache La Poudre R	9,669	55	14,232	80	4,098	23	16,514	93	4,139
Chambers	Joe Wright Cr	1,197	14	3,192	36	275	03	4,217	47	591
Long Draw aka Grand River	Long Draw Cr	6,930	63	7,923	72	6,243	56	7,539	68	3,376
Black Hollow	Cache La Poudre R	4,089	51	4,130	51	4,130	51	4,171	51	4,089
Curtis	Cache La Poudre R	730	58	695	55	524	41	475	37	444
Kluver	Cache La Poudre R	656	57	743	65	727	63	760	66	663
Long Pond aka Water Supply #5,6,7	Cache La Poudre R	2,575	64	2,277	56	2,758	68	2,989	73	2,362
Rocky Ridge aka Water Supply #1	Cache La Poudre R	3,403	77	3,163	71	2,697	60	3,323	75	3,343
Water Supply #3	Long Pond Res.	3,514	73	3,381	70	3,842	79	3,763	77	1,079
Water Supply #4	Long Pond Res.	843	58	843	58	805	54	851	58	584
Terry aka Larimer Weld	Cache La Poudre R	5,635	69	5,816	71	3,884	47	5,726	70	3,129
Worster	Sheep Creek	480	13	675	18	228	06	1,057	28	124
Timnath	Duck Slough	2,667	26	10,070	100	4,250	42	9,887	98	2,875
Windsor Lake	Cache La Poudre R	0		926	63	842	57	900	61	558
Barnes	Barnes Meadows Cr	118	05	202	09	0		713	30	1,990
Others		7,003	41	5,533	32	4,285	24	6,636	38	4,324

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 4

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Boulder & Larimer aka Ish	Little Thompson	1,289	18	6,404	87	1,659	22	4,561	62	1,129
Boyd Lake	Big Thompson	28,123	48	45,450	78	14,580	24	37,531	64	22,486
Carter	Big Thompson	46,461	41	106,247	95	61,349	54	110,245	98	60,606
Donath	Big Thompson	65	06	1,050	91	407	35	379	33	407
Hertha Reservoir	Dry Cr. Hertha	385	23	1,726	101	371	21	1,703	100	556
Horseshoe Reservoir	Big Thompson	4,659	58	3,743	46	6,392	79	4,964	61	2,883
Lake Loveland	Big Thompson	9,265	73	11,587	91	9,724	76	11,587	90	6,976
Lon Hagler	Big Thompson	2,420	48	5,108	102	1,781	35	3,813	75	4,255
Lone Tree	Big Thompson	5,952	64	8,525	92	2,527	27	8,769	91	2,594
Loveland Lake	Big Thompson	1,271	54	1,920	82	1,336	57	2,049	87	861
Marino	Big Thompson	780	14	4,993	90	3,599	64	5,031	90	2,082
Welch Lake	Big Thompson	5,240	78	6,282	93	5,199	77	5,491	81	3,686
Others		1,880	42	2,236	50	1,622	36	2,372	53	1,352

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 5

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Beaver Pond	Beaver Creek	1,386	64	1,438	67	1,349	62	1,516	70	964
Foothills	St. Vrain	2,651	61	3,267	75	0		3,395	78	818
Highland #1	St. Vrain	726	70	937	91	764	73	773	74	498
Highland #2	St. Vrain	2,631	71	3,536	95	2,695	72	3,226	86	2,409
Highland #3	St. Vrain	723	44	1,598	98	897	55	1,141	70	577
McIntosh	St. Vrain	814	32	2,305	90	1,335	52	2,341	91	837
Pleasant Valley	St. Vrain	2,460	80	2,617	85	1,899	61	3,009	97	1,951
Oligarchy Res. #1	St. Vrain	1,471	85	1,640	94	1,640	94	1,708	98	1,630
Union	St. Vrain	10,041	79	12,715	100	10,145	79	12,715	100	9,063
Left Hand Park	Left Hand Creek	620	38	665	40	449	27	911	55	1,228
Left Hand Valley	Left Hand Creek	1,544	41	3,287	87	2,941	78	3,346	88	1,674
Button Rock	St. Vrain	11,455	74	13,836	90	12,300	79	15,457	100	11,654
New Thomas	St. Vrain	2,104	56	2,282	61	2,003	53	2,264	60	2,113
Lagermann	Left Hand Creek	895	71	867	68	840	66	914	72	732

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 6

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Albion	Albion Creek	1,111	100	1,111	100	1,111	100	1,111	100	1,111
Barker	Boulder Creek	8,898	77	4,291	37	9,196	79	5,970	51	4,721
Baseline	Boulder Creek	2,702	51	4,770	90	2,930	55	5,380	101	1,409
Boulder	Boulder Creek	5,446	31	7,984	46	5,381	30	9,266	52	6,225
Goose	North Boulder Cr.	1,036	100	1,036	100	1,036	100	459	44	1,036
Great Western	Coal Creek	2,328	72	1,926	59	2,584	79	2,982	91	2,271
Gross	South Boulder Cr.	30,220	72	18,131	43	32,960	78	20,584	49	20,912
Hillcrest	Boulder Creek	1,607	75	1,878	88	1,841	85	2,085	97	1,899
Leggett	Boulder Creek	1,157	75	1,355	87	1,327	85	1,509	97	1,371
Marshall	South Boulder Cr.	225	02	6,919	66	4,662	44	9,655	92	4,922
McKay	South Boulder Cr.	413	49	406	48	371	43	531	62	181
Panama	Boulder Creek	3,459	69	4,045	81	3,765	75	4,345	87	2,829
Silver	North Boulder Cr.	3,987	100	412	10	3,781	94	412	10	3,730
Six Mile	Boulder Creek	569	40	1,190	83	715	50	1,248	87	575
Valmont	South Boulder Cr.	6,028	81	6,670	90	6,583	88	7,147	96	6,712

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 7

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Ralston	Ralston Creek	8,601	67	8,191	64	6,229	48	8,935	70	6,390
Long Lake	Ralston Creek	189	14	901	67	1,064	78	1,109	82	545
Tucker	Ralston Creek	218	20	530	48	323	29	514	46	311
Leyden	Clear Creek	0		95	08	403	34	802	69	433
Hyatt	Clear Creek	477	44	271	25	184	16	652	59	510
Standley	Clear Creek	33,762	80	38,142	90	34,197	81	42,200	100	33,117
Coors B #3	Clear Creek	2,514	100	1,635	65	2,464	98	2,514	100	2,445
Coors B #4	Clear Creek	3,729	100	2,904	78	3,551	95	1,274	34	3,500
Blunn	Clear Creek	4,725	81	4,725	81	4,552	78	4,552	78	4,587
Others		8,510	56	7,427	49	9,345	61	4,436	29	4,404

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 8

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Aurora Rampart	Gulch	855	71	677	56	916	76	938	78	561
Chatfield	South Platte	27,036	38	26,807	37	19,805	27	27,036	37	17,060
Cherry Creek	Cherry Creek	13,598	06	13,313	05	13,754	05	13,832	05	13,728
Marston	South Platte	10,019	58	16,010	93	7,214	41	13,457	78	5,894
McLellan	Dad Clark Gulch	5,719	95	5,468	91	4,982	83	4,765	79	4,932
Platte Canon	South Platte	830	86	889	92	883	91	932	96	897
Quincy	South Platte					2,458	88	2,527	91	2,298
Strontia Springs	South Platte	7,333	93	6,780	86	6,798	48	7,242	92	6,972

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 9

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Soda #2 (East)	Bear Creek	1,507	100	1,507	100	1,501	99	1,507	100	813
Bowles	Bear Creek	1,194	48	1,194	48	1,335	53	1,610	65	1,194
Patrick	Bear Creek	694	62	694	62	694	62	768	69	1,113
Bear Creek Res.	Bear Creek	2,027	03	2,095	03	1,990	02	2,060	02	2,056
Others		3,517	58	3,706	62	3,340	55	3,390	56	3,343

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 23

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Antero	S Fk South Platte	15,957	19	5,164	06	15,378	17	19,690	23	20,081
Montgomery	Mid. Fk. S. Platte	2,916	57	1,250	25	4,797	94	959	18	3,341
Eleven Mile	Mid. Fk. S. Platte	98,938	101	101,906	104	97,338	99	97,915	100	99,581
Spinney Mountain	Mid. Fk. S. Platte	48,263	89	42,340	78	37,599	68	52,845	96	35,954

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 64

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Prewitt	South Platte	16,070	56	27,450	95	19,200	66	26,310	91	14,680
North Sterling	South Platte	22,020	27	69,760	85	29,430	35	68,360	83	16,770
Julesburg	South Platte	18,547	66	20,646	73	17,190	61	18,273	64	18,408

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 80

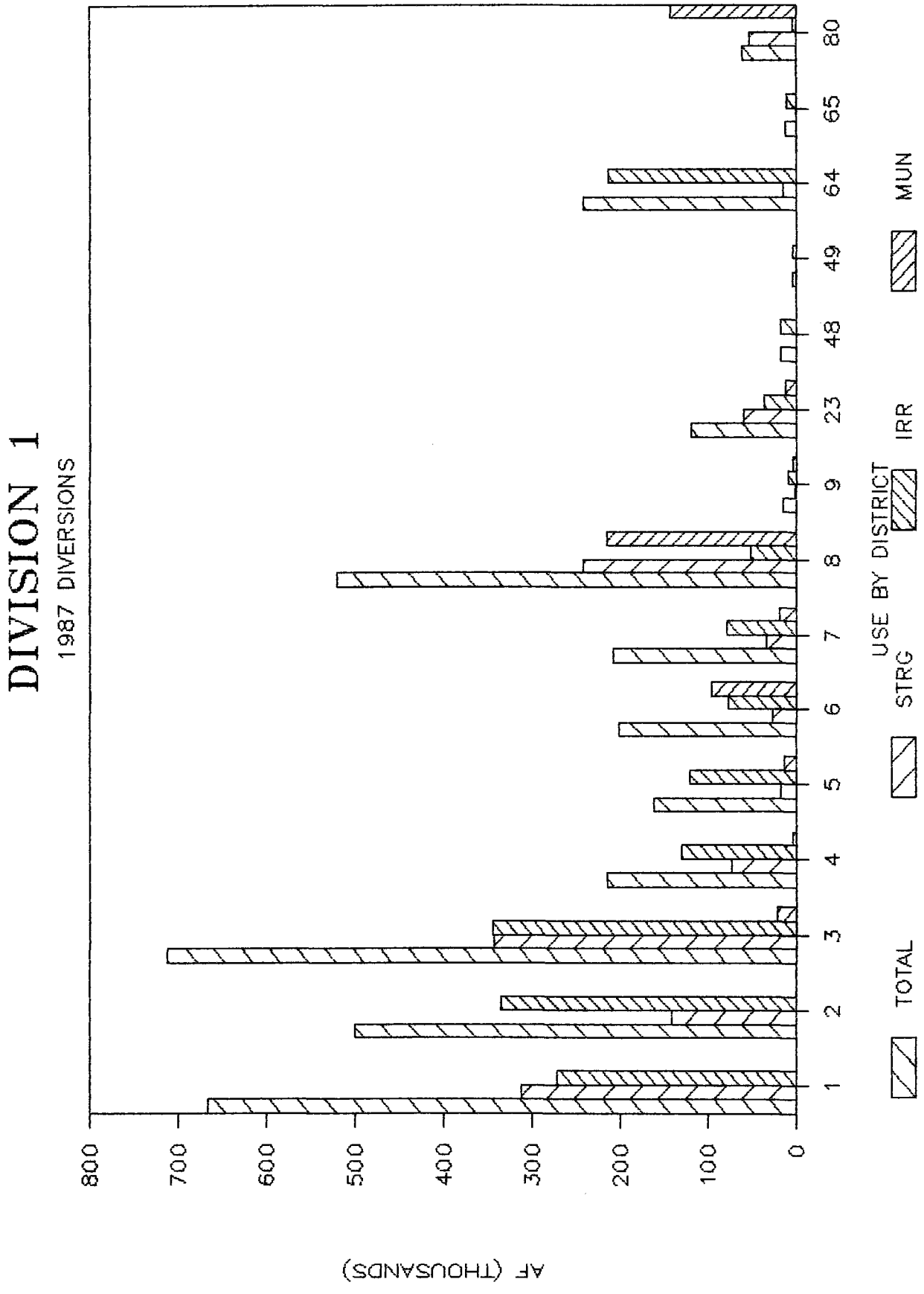
RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1986-1987 IRRIGATION YEAR				End 1987 Water Yr
		Beg Irr Yr		Beg Irr Season		Beg Irr Yr		Beg Irr Season		
		AF	%	AF	%	AF	%	AF	%	
Cheesman	S. Fk. S. Platte	73,150	93	77,803	98	46,521	58	76,341	96	47,640
Wellington	N. FK. S. Platte	3,036	69	3,711	84	2,909	66	3,115	70	2,725
Others		799	65	963	78	673	54	673	54	690

1987 WATER DIVERSION SUMMARIES BY DISTRICT IN AF

TOTAL DITCHES REPORTING					ESTIMATED NUMBER OF DITCH VISITATIONS	TOTAL DIVERSIONS -AF-	TOTAL DIVERSIONS TO STORAGE -AF-	IRRIGATION		
WD	WA	NWA	NR	NU				TOTAL DIVERSIONS -AF-	NUMBER OF ACRES IRRIGATED	AVERAGE AF PER ACRE
01	263	6	366	86	13,814	665,906	311,972	271,351	189,225	1.43
02	225		132	31	5,554	499,908	141,198	335,341	244,326	1.37
03	474	1	248	49	16,200	712,488	343,667	344,812	262,425	1.31
04	266	3	175	11	6,119	215,603	74,499	131,766	107,706	1.22
05	223	2	17	15	7,627	162,583	18,504	121,899	111,780	1.09
06	207	1	118	80	7,254	201,419	26,810	78,554	100,331	0.78
07	314		269	24	15,397	207,994	34,123	79,256	51,250	1.55
08	430	1	116	60	7,631	521,111	241,572	52,076	12,414	4.19
09	552		493	17	2,495	15,287	1,609	9,728	5,845	1.66
23	297	17	481	48	16,063	119,513	60,091	37,203	15,298	2.43
48	80	2	34	12	3,240	18,034		18,034	4,615	3.90
49	22		19	1	58	3,895		3,895	1,555	2.50
64	159	6	19	12	4,792	241,143	15,457	213,959	151,642	1.40
65	24		5	6	1,665	13,459		11,087	4,720	2.35
80	253	44	30	43	1,502	62,222	54,904	4,801	1,545	3.10
TOTALS	**3,789**	**83**	**2,522**	**495**	**109,411**	**3,660,565**	**1,324,406**	**1,713,762**	**1,264,677**	**1.36**

1987 WATER DIVERSION SUMMARIES BY DISTRICT IN AF (CONTINUED)

WD	TRANSMOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	MUNICIPAL	INDUSTRIAL	RECREATIONAL	FISHERY	COMMERCIAL	RECHARGE	AUG
01				24,215				57,931	317
02			702			361	6,960	9,124	5,415
03			22,715	319					975
04			5,254						4,084
05			14,267						4,269
06			96,025						30
07			20,287	50,715					5,004
08			215,014	3,743		6,657	346		1,703
09			3,817						133
23			13,352	1,210	3,769	369		3	3,516
48									
49									
64							1,043	5,517	5,167
65						2,347			25
80							3		602
TOTALS			**391,433**	**80,202**	**3,769**	**9,734**	**8,352**	**72,575**	**31,240**


DIVISION 1
1987 DIVERSIONS
AF (THOUSANDS)
800
700
600
500
400
300
200
100
0
1
2
3
4
5
6
7
8
9
23
48
49
64
65
80
USE BY DISTRICT
TOTAL
STRG
IRR
MUN

WATER COURT ACTIVITIES

No. of Applications for Decree	338
No. of Consultation with Referee	468
No. of Decrees Issued by Water Court	341

Type of Decrees		Type of Structures Ditch	Res.	Sprg.	Well	Other	Total
New Appropriation	175	6	30	24	624	8	692
Change	123	93	124	22	224	17	480
		TFR				0	
		Alt Point				2	
		Change Use				3	
		Diligence				71	
		Abandonment				2	
		Correction				4	
		Aug Plan				15	
		Change pt of diversion				13	
		Change point of Use				2	
		Exchange				2	
		Other				9	
Other	43						
		Denial				3	
		Dismissal				19	
		Vacate				2	
		Injunction				1	
		Stipulation				0	
		Abandon				9	
		Other				10	
TOTAL DECREES	341	**TOTAL NO. OF STRUCTURES**					1,172

ACTIVITY SUMMARY

ACTIVITY	TOTAL WATER YEAR	TOTAL TO DATE
Number of professional and technical staff		5
Number of clerical staff		2
Number of Water Commissioner FTE assigned (full and part-time)		15 Full Time 12 Part Time
Number of decreed surface rights		9,802*
Number of surface rights administered		**
Number of wells		65,057
Number of plans for augmentation	15	315
Number of consultations with Referee	351	
Number of Water Court appearances	195	
Number of meetings with water users	496	
Number of meetings to resolve water related disputes	0	
Number of contacts to give public assistance on water matters	45,087	
Contact with other agencies	180	

* Estimated from Tabulation
**To be Determined

RIVER CALL 1986-1987

Calling Priority

Date Call Initiated 1986-87	Date Call Released 1986-87	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
11/01/86	11/17/86	Barr Lake/Burlington	11/20/1885	02	Manuel Montoya	8,9,23,80
11/17/86	01/13/87	Barr Lake Enlargement	01/13/1909	02	Manuel Montoya	8,9,23,80
01/13/87	01/27/87	Marston Reservoir	04/01/1911	08	Bill Bates	8,23,80
01/27/87	04/09/87	Denver Intake	12/06/1910	08	Bill Bates	8,23,80
04/09/87	04/20/87	Marston Reservoir	04/01/1911	08	Bill Bates	8,23,80
06/24/87	06/27/87	Barr Lake Enlrg	01/13/1909	08	Manuel Montoya	8,9,23,80
06/27/87	06/30/87	Ft. Morgan Canal	10/18/1882	01	Harold Griffith	2,3,4,5,6,7,8,9,23,80
06/27/87	06/30/87	Duel & Snyder	04/07/1884	01	Gilbert Schman	2,3,4,5,6,7,8,9,23,80
06/30/87	07/01/87	Barr Lake Enlargement	01/13/1909	02	Manuel Montoya	8,9,23,80
07/02/87	07/06/87	Barr Lake Enlargement	01/13/1909	02	Manuel Montoya	8,9,23,80
07/06/87	07/10/87	Burlington	11/20/1885	02	Manuel Montoya	8,9,23,80
07/10/87	07/11/87	Brantner	01/15/1881	02	Art Eppinger	8,9,23,80
07/11/87	07/15/87	Farmers Independent	11/20/1876	02	John Bay	7,8,9,23,80
07/14/87	07/27/87	Bijou	10/01/1888	01	Russ Osborne	2,3,4,5,6
07/15/87	07/21/87	Brantner	01/15/1881	02	Art Eppinger	7,8,9,23,80
07/21/87	07/22/87	Fulton	07/08/1876	02	Walt Dittmer	7,8,9,23,80
07/22/87	07/23/87	Lupton Bottom	09/15/1873	02	Roy Miller	7,8,9,23,80
07/23/87	08/04/87	Evans #2	10/05/1871	02	Myron Martinson	7,8,9,23,80
07/27/87	07/30/87	Pawnee	06/28/1882	64	Roger Voit	1,2,3,4,5,6
07/30/87	08/24/87	Ft. Morgan Canal	10/18/1882	01	Harold Griffith	1,2,3,4,5,6

RIVER CALL (Continued)

Calling Priority

Date Call Initiated 1986-1987	Date Call Released 1986-1987	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
08/04/87	08/05/87	Platteville	10/15/1873	02	John Kuzman	7,8,9,23,80
08/05/87	08/10/87	Farmers Independent	11/20/1876	02	John Briggs	7,8,9,23,80
08/10/87	08/11/87	Lupton Bottom	09/15/1873	02	Roy Miller	7,8,9,23,80
08/11/87	08/15/87	Brantner	01/15/1881	02	Art Eppinger	7,8,9,23,80
08/15/87	08/17/87	Farmers Independent	11/20/1876	02	John Briggs	7,8,9,23,80
08/17/87	08/19/87	Lupton Bottom	09/15/1873	02	Roy Miller	7,8,9,23,80
08/19/87	08/23/87	Evans #2	10/05/1871	02	Myron Martinson	7,8,9,23,80
08/23/87	08/24/87	Brantner	01/15/1881	02	Art Eppinger	7,8,9,23,80
08/24/87	08/26/87	Bijou	10/01/1888	01	Ross Osborne	2,3,4,5,6,7
08/24/87	08/26/87	Burlington	11/20/1885	02	Manuel Montoya	8,9,23,80
08/26/87	08/28/87	Denver Intake	12/06/1910	08	Bill Bates	8,23,80
08/28/87	11/01/87	Burlington	11/20/1885	02	Manuel Montoya	8,9,23,80

COMPACTS

SOUTH PLATTE RIVER COMPACT

The Colorado-Nebraska Compact on the South Platte provides that Colorado shall have the full use of the river water between the fifteenth of October of any year and the first day of April of the succeeding year but that, between the first day of April and the fifteenth of October of each year, Colorado shall not permit diversion from the river below the Washington-Morgan County line to supply water rights having priority dates junior to June 14, 1897 to the extent that they would diminish the flow of the river at the Julesburg gaging station below a daily mean flow of 120 cfs.

Normally it is not necessary to curtail any surface diversion in Colorado to honor the compact because stream flows are inadequate to satisfy all the water rights senior to the compact date.

Preliminary flow data for the Julesburg station indicates that during the 198 day period from April 1 to October 15, 1987, the mean daily flow dropped below 120 cfs on 60 days.

REPUBLICAN RIVER COMPACT

The Republican River Compact allocates water to the signatory states, Colorado, Kansas and Nebraska on the basis of beneficial consumptive use. Colorado's total allocation of 54,100 acre feet is broken down as follows:

North Fork of the Republican River Drainage Basin	10,000 AF
Arikaree River Drainage Basin	15,400 AF
South Fork of the Republican River Drainage Basin	25,400 AF
Beaver Creek Drainage Basin	3,300 AF

and in addition, for beneficial consumptive use in Colorado annually, the entire water supply of the Frenchman Creek (River) Drainage Basin in Colorado and the Red Willow Creek Drainage Basin in Colorado.

The computed annual consumptive use in Colorado in the Republican River Basin for the 1985 water year, the last year for which official figures are available, was an follows:

STREAM	DIVERSIONS	CONSUMPTION	PERCENT OF ALLOCATION
N. Fk. Republican River	9,060	6,560	65.60
S. Fk. Republican River	14,807	10,690	42.0
Arikaree River	5,408	4,060	26.4
Beaver Creek	0	0	0

COMPACTS (continued)

LARAMIE RIVER AGREEMENT

The 1957 decree of the United States Supreme Court limits the diversions from the Laramie River and its tributaries to 49,375 acre feet annually for the State of Colorado. Of that amount, 19,875 acre feet are allocated to transmountain users and the remaining 29,500 acre feet to the meadowland users within the river basin. The meadowland users are further restricted to diversions of not more than 1,800 acre feet after July 31 of each year. In the event that the transmountain users do not divert their full allotment, the meadowland users may divert the difference between the 19,875 acre feet and the actual amount if diverted within the same year.

Sand Creek, which arises in Colorado, later becoming tributary to the Laramie River in Wyoming, is not included within the terms of the compact. Instead, Colorado and Wyoming have a working agreement whereby senior water rights on Sand Creek in Wyoming are recognized before junior diversions are made in Colorado through the Wilson Supply Canal, a transbasin diversion.

In 1987, the transmountain diversions under the Laramie River Compact totaled 19,057 acre feet of the 19,875 acre feet compact allowance. The meadowland diversions totaled 18,034 acre feet or some 61% of the allotment. Total Colorado diversions were 37,091 acre feet or 75% of the total allotment of 49,375 acre feet.

RICHARD D. LAMM
Governor

JERIS A. DANIELSON
State Engineer

DIVISION OF WATER RESOURCES

WATER DIVISION I

Alan D. Berryman
Division Engineer
800 8th Ave.-Room 209 - ARIX Bldg.
Greeley, Colorado 80631
(303) 352-8712

Januuary 26, 1987

MEMORANDUM

TO: Paula Lacey

FROM: Alan D. Berryman

SUBJECT: Recommendations/Annual Report

Enclosed please find a copy of the recommendations which I failed to hand in with the annual report. Please distribute to Walt or place in the report as necessary.

ADB:ct
Encl.

RECOMMENDATIONS

Policies

As a result of the cost in resources needed to pursue litigation of water court cases and the large number of potential cases that continue to exist, an ongoing effort is needed between the Office of the State Engineer and the division office to focus the court effort and maximize the results obtained. In general, and especially in the area of nontributary ground water, it may now be possible to litigate only selected cases and resolve other cases through the consultation process. This would require closer working relationships in order to examine policy in relation to upcoming cases; however, the time spent should result in a more focused presence in court, and hopefully, less time spent in litigation.

The upcoming year appears to be one in which frequent exchanges of thoughts regarding policy will be necessary to maintain policy consistency in the Division of Water Resources. Coordination of ideas and actions will be especially important in the administration of Cherry Creek and in bringing closer administration to the South Platte River above Denver.

Personnel Change

As reflected in last year's report, it appears that increased efficiency may be gained by consolidating some job responsibilities in water districts 8, 9, and 80. With the development in those areas, more resources will be needed to administer the associated water rights. In addition to consolidation, any temporary man-months that are available will be devoted to the metro-area districts in the future.

Another personnel change that may increase the effectiveness of the division is to merge water districts 4 and 5 under one principal water commissioner with a deputy in each district running the daily administration. Since it appears that Stix Palmer may retire within one year, this may become possible this year. Such a change would result in 3 fulltime positions rather than 2 fulltime and 2 part/time positions, with the remaining time distributed elsewhere.

Budgetary Priorities

The main priority related to the budget in division one would be the filling of the senior water resource engineer position vacated by Chuck Roberts. The administrative challenges that exist for the upcoming year in the areas in nontributary ground water and in general administration demonstrate the need for this position.

A secondary priority would be for IBM compatible computer equipment in order to interact with other water users as well as water commissioners in the administration of the South Platte River.

Legislation

One possibility for legislation impacting division one is for a clarification and simplification of exempt ground water uses. We find many instances of water use that may qualify as an exempt type of use with respect to volume and consumptive use; however, the fact that more than a single type of use is desired prevents issuance of a permit. The most frequent example involves the combination of commercial and domestic use in "mom and pop" operations. Some uses of this type have occurred for many years. A change in the exempt statute could facilitate such operations and improve the division's ability to serve the public without altering the impact of wells on the system.