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WATER RESOURCES
STATE ENGINEER
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ANNUAL REPORT
DIVISION NO. I
1989 IRRIGATION
NOV. 1, 1988 - OCT. 31, 1989

BY

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INDEX

I.	<u>WATER ADMINISTRATION</u>	
	A.	Current Water Year.....1
	B.	Coming Water Year.....4
II.	<u>STATISTICAL INFORMATION</u>	
	A.	Administration of Plans for Augmentation....7
	B.	Augmentation Releases By Districts.....8
	C.	Transmountain Diversions.....9
	D.	Storage Water.....10
	E.	Water Diversions.....23
	F.	Diversion by Districts.....25
	G.	Court Activities.....26
	H.	Office Administration.....27
	I.	River Call.....28
	J.	Compact Deliveries.....31

WATER ADMINISTRATION

CURRENT WATER YEAR

Accomplishments

Water distribution and administration was again the main accomplishment over the past year. Water administration was made more difficult due to the relatively dry conditions in the first half of the year. During 1989 the water court issued 609 decrees and there were 241 applications for new water rights.

The artificial recharge project near Julesburg began limited operation during the past year and approximately 422 acre feet of water was recharged to the aquifer. Presently, agreements are being prepared with the Lower South Platte Water Conservancy District to jointly develop the project to a point where it will benefit water users at the lower end of the river in Colorado. Additional design and operational efforts are necessary to complete the project for continued use in the future.

Administration and accounting in the upper South Platte River was improved over the past year. Strong interest has been developed by the major water users in that area to assist the State Engineer's office in developing and maintaining an accounting/administration package, including hardware for operation, to use in distributing water in the upper river above Denver.

A water commissioner handbook was developed in cooperation with the other divisions which is proving very valuable, especially to new commissioners.

A stream depletion program was developed to assist in evaluation of pumping depletions caused by multiple wells in the South Platte alluvium. The program will aide in the administration of augmentation plans along the South Platte River.

Involvement in Water User Community

In order to inform well owners in Lake George/Florissant area about the permitting and use of wells, including distinctions between exempt and non-exempt wells, a public meeting was held November 17, 1989 in the Florissant community building.

Meetings were held in the Julesburg area with well users and irrigation district managers to address the problems with well pumping in the area and to look at alternatives for solving the problem. The recharge project near Julesburg emanated in part from these meetings.

Several meetings were held with water users in the upper South Platte River to discuss administrative problems in that stretch of the river.

Periodic meetings of the South Platte Basin Water Management Study group were attended. The study was initiated to identify problems, needs, and concerns of water users and to develop possible solutions to those problems.

During the year, several presentations were given to groups from Colorado State University regarding administrative systems and operations in a prior appropriation state.

Additional involvement with water users came through attendance at regular and annual meetings of those entities.

Key Issues/Impacts

1989 was a year that signaled some changes in attitudes of citizens as to how water should be used in the state of Colorado. The denial of the permit to build Two Forks reservoir by the EPA indicated the desire of federal interests to bring in the concerns of environment to large water projects. Similarly, the Colorado legislature stepped into issues involving the environment with passage of SB 181 which requires the Water Quality Control Commission to provide water quality standards to other state agencies for use in areas where water quality matters must be considered by these agencies.

The applications of the United States Forest Service for reserved rights in the national forests could impact some water users who have existing rights in those areas since the applications seek antedation of their priorities to the late 1800's and early 1900's. Additional administrative

burdens could also accrue to this office due to the large number of rights sought and to the unique administrative requirements proposed for these rights.

Additional administrative burdens are being created by complex decrees involving changes in old water rights for use in plans for augmentations and exchanges. Division One is also seeing increasing use of temporary substitute water supply plans, claims for lawn return flow credits and well development. All of the activities are due to the keen competition for water along the front range of Colorado as municipalities continue to procure water supplies for the future.

Unresolved Issues

The Cherry Creek basin is progressing toward total administration. During 1990 one day of pumping will be allowed without being augmented and in 1991 all wells will have to follow the rules and regulations for groundwater withdrawal. A pending court decision involving Arapahoe Water and Sanitation District is imposing a cooperative effort for area water users to develop a water management plan that will tie into such administration and protect historic ground water development from new demands on the system.

Water distribution and accounting in the upper South Platte River basin continues to progress. Similarly, preparation for administration of gravel pits pursuant to SB 120 is progressing for the July, 1990 implementation date.

Workload Changes/Effect on Staff

The most significant change in workload comes from time spent in the monitoring and evaluation of new and/or changed water rights. Over the past year, an engineer position spent nearly full time on court and case preparation, negotiations and court testimony, leaving little time for other tasks. The result is reduced ability to support water commissioners in the field in the area of water rights analysis and administration.

The requirements of hydrographers in this division have increased over the past year. For the first time in 3 years, the hydrography branch is fully staffed and every effort is being made to bring old unfinished records up to date as well as maintaining this year's records. The addition of new gaging stations to the stream system as required in some transfers of water rights adds to the

workload of the branch. Also, maintenance of the satellite monitoring system has demanded increased hydrographer time.

The division office has assumed responsibilities for daily operation of the South Platte river system above Denver, including the operation of Chatfield reservoir. While this has freed up a water commissioner to do other duties, it has tied up a position in the division office in order to communicate with water users and order gate changes at the reservoir.

Budget Impact

The limited operating budget is increasingly having a negative impact on division operations. More demand is being placed on division personnel through new and complex decrees which require detailed monitoring, well permit investigations, and water disputes. The budget was over expended in the past year and some responsibilities were left unfinished. Every facet of our operation has to be weighed against expenditures with some duties being curtailed. A related consequence is the frustration of not being able to accomplish the job that is needed. The majority of the budget is spent on travel and phone expenses. These budget items have been stretched to the limit in the efforts to do the job asked of the division and the point has been reached where services will have to be curtailed unless operating funds are increased. Reductions will come in areas of limited travel for commissioners and division staff, less well inspection activities, less phone communication by all personnel, and a reduced hydrography effort.

COMING WATER YEAR

Problems/Concerns

At the present time it appears that managing the operating budget will become a major concern for the remainder of the year. Past levels of activity will have to be reduced. If a relatively dry year occurs, the ability to efficiently distribute water will be limited.

The ramifications of gravel pit legislation will be felt this summer as all gravel pits that started since 1980 will have to be in some type of augmentation plan this July.

Substantial efforts in enforcement are anticipated which will require additional travel expenses on an already strained budget.

Ongoing efforts in the areas of accounting and administration will be necessary. Administration of the upper South Platte basin will continue to be evaluated and efforts will be made to improve that administrative system. Similar efforts are required in Cherry Creek as wells become subject to strict administration. Furthermore, a cooperative study on water rights management in Cherry Creek will begin in the coming year. Clear Creek water users are making efforts to build a working administrative computer model to help the water commissioner in his duties. This effort will demand involvement of the division office. The same type of efforts are needed in the FRICO and Boulder Creek stream system. Considerable time has been spent in litigating plans for augmentation and exchanges in the past. A more concentrated effort is needed to monitor those decrees to see if they are working as decreed and the accounting provided is adequate..

Significant amounts of time have been set aside in the U.S. Forest Service case by the Attorney General's office. This office anticipates that significant time will be spent supporting the case.

Finally, ongoing work will be necessary to develop the recharge project at the lower end of the river and improve well administration in that area.

All of the above concerns are of a long term nature. Progress will be made in each of the areas, but none of the items listed are anticipated to be fully completed during the next year.

Projected Work Items/Staff

As in past years, staff efforts will be directed toward improved water rights accounting and water commissioner support. Efforts will be made to reduce time spent on water court investigations, negotiations, and litigation by requesting the Denver office staff to take more of the responsibility so that we can assist our water commissioners in their administration duties. The increasingly complex system of water rights coupled with very difficult decrees makes this task almost imperative.

Specifically, the upper South Platte administrative system will continue to be studied and improved. Desire of water

users in this reach of stream to help develop computerized models to assist in administration will be explored and hopefully implemented. Similarly, development of administrative models for the Cherry Creek and Clear Creek basins in cooperation with water users is expected to occur.

The South Platte River in eastern Colorado will continue to be looked at. Time will be spent on further development of the recharge project near Julesburg and well users in the area will be brought into compliance with rules and regulations for groundwater pumping. Additional efforts will be made to enhance our knowledge of water use in water district 64, including effects of well pumping and augmentation.

STATISTICAL INFORMATION

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

A. Administration of Plans for Augmentation

Division one has approximately 355 plans for augmentation. In 1989, about 75,045 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 1989 in section E that follows (2nd page of section E).

B. Transmountain Diversions

C. Storage Water

D. Water Diversions

E. Court Activities

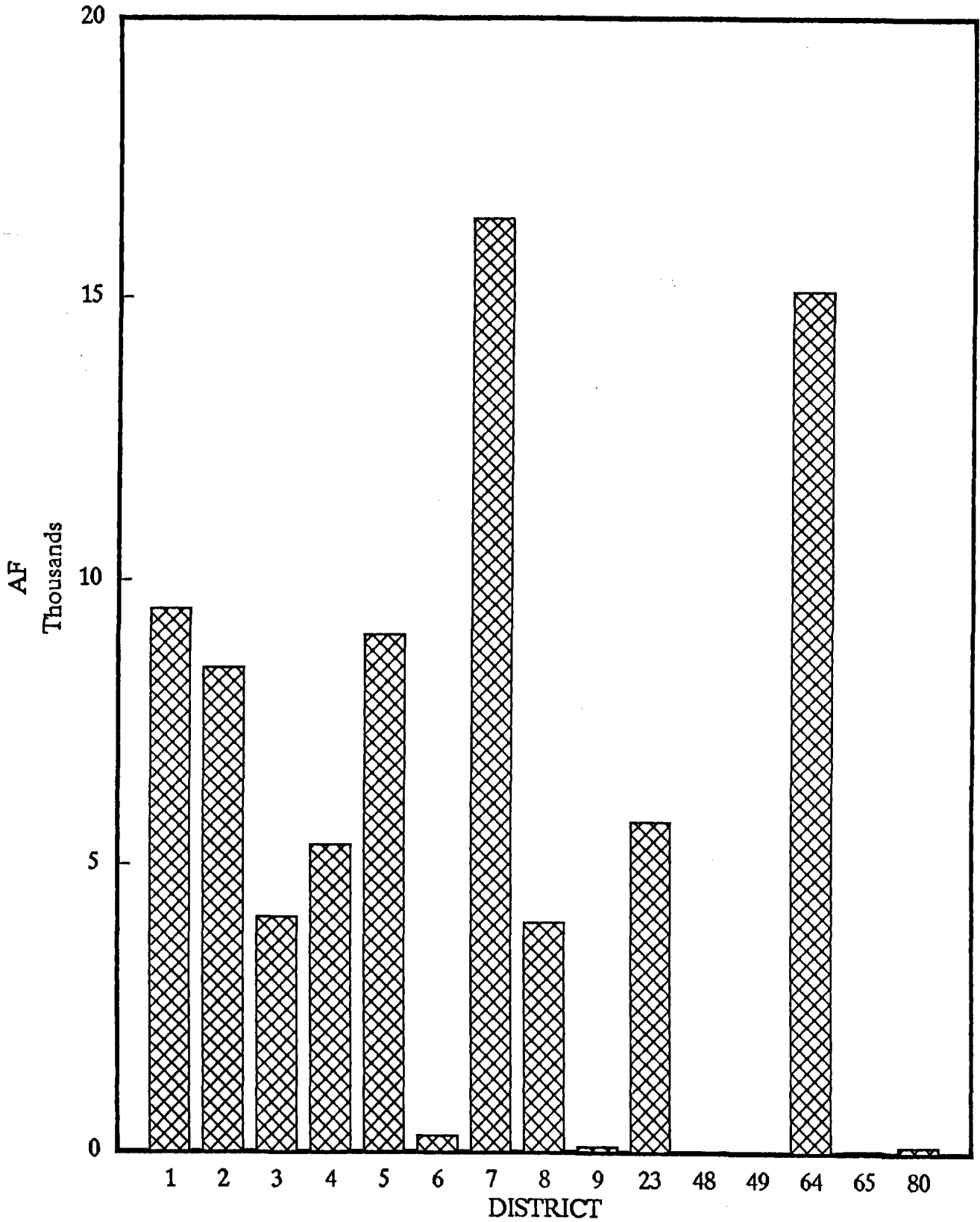
F. Office Administration

G. River Calls

H. Compact Deliveries

DIVISION 1

1989 AUGMENTATION RELEASES



TRANSMOUNTAIN DIVERSIONS SUMMARY - INFLOWS

RECIPIENT		1988 WATER YEAR		1989 WATER YEAR		SOURCE	
WD	NAME	AF	DAYS	AF	DAYS	WD	STREAM
03	Wilson Supply Ditch	2,050	24	930	70	48	Sand & Deadman Cr.
03	Deadman Ditch	0	0	710	57	48	Deadman Creek
03	Bob Creek Ditch	0	0	0	0	48	Nunn Creek
03	Columbine Ditch	0	0	0	0	48	Deadman Creek
03	Laramie-Poudre Tunnel	13,900	108	18,880	134	48	Laramie River
03	Skyline Ditch	0	0	109	3	48	Laramie River
03	Cameron Pass Ditch	152	22	116	42	47	Michigan River
03	Michigan Ditch	4,770	175	1,740	166	47	Michigan River
03	Grand River Ditch	19,920	130	18,830	145	51	Colorado River
04	Eureka Ditch	0	0	0	0	51	Colorado River
04	Adams Tunnel	258,000	354	273,200	365	51	Colorado River
06	Moffat Tunnel	75,340	366	66,530	365	51	Fraser River
07	Berthoud Pass Ditch	710	56	843	107	51	Fraser River
07	Vidler Tunnel	758	103	975	135	51	Montezuma Creek
23-							
08	Roberts Tunnel	53,060	200	74,380	236	36	Blue River
23	Boreas Pass Ditch	0	0	0	0	36	Indiana Creek
23	Hoosier Pass Ditch	9,680	155	10,870	135	36	Blue River
23	Aurora Homestake	14,553	177	22,468	226	37	Homestake Creek

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 1

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr AF	%	Beg Irr Season AF	%	Beg Irr Yr AF	%	Beg Irr Season AF	%	
Bi.jou #2	South Platte	2,800	31	3,820	42	385	04	955	10	1,130
Empire	South Platte	17,885	47	33,590	89	18,547	49	33,858	90	19,869
Jackson	South Platte	25,567	72	34,945	98	18,051	51	31,586	89	20,565
Riverside	South Platte	12,692	20	62,734	99	20,138	32	60,479	96	8,155
Others		37	02	711	33	360	17	540	25	395

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 2

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr		% Season		Beg Irr Yr		% Season		
		AF	%	AF	%	AF	%	AF	%	
Barr	South Platte	19,831	62	31,409	98	13,685	43	27,791	86	17,541
Bull Canal #8	Clear Creek	1,100	18	2,835	48	2,349	39	4,058	68	1,692
Coal Ridge	Little Dry Creek	392	60	291	45	564	86	672	103	561
Great Western	Walnut Creek	2,271	70	1,736	53	1,989	61	1,436	44	2,571
Horse Creek	South Platte	6,996	41	14,987	88	8,150	48	14,320	84	5,966
Lord	South Platte	120	03	372	10	0	0	412	12	41
Lower Latham	South Platte	5,458	88	6,023	97	5,646	91	5,693	92	5,929
Milton	South Platte	15,540	74	21,487	102	15,827	75	20,563	97	16,371
Prospect	South Platte	0		4,962	83	2,238	37	5,020	84	1,332
Quincy	South Platte	2,541	91	2,569	92	2,527	90	2,514	90	2,527
Standley	Woman Creek	31,152	74	35,019	83	32,098	76	31,360	74	35,074
Others		6,317	68	6,307	68	5,460	59	3,250	35	2,767

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 3

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr	Beg Irr Season	Beg Irr Yr	Beg Irr Season	Beg Irr Yr	Beg Irr Season	Beg Irr Yr	Beg Irr Season	
		AF	%	AF	%	AF	%	AF	%	
Fossil Creek	Fossil Creek	3,967	34	8,847	77	5,083	44	8,130	71	5,453
Halligan	N Fk Poudre River	1,317	20	5,187	81	664	10	2,156	34	817
Indian Creek - aka	Indian Creek	1,051	55	974	51	1,460	77	1,339	70	1,673
Mountain Supply										
North Poudre #2	N Fk Poudre River	1,961	50	2,131	55	1,326	34	2,309	59	495
North Poudre #3	N Fk Poudre River	1,892	55	2,206	64	1,687	43	1,554	45	2,889
North Poudre #4	N Fk Poudre River	458	27	522	31	466	28	458	27	380
North Poudre #5	N Fk Poudre River	3,495	42	3,904	46	3,464	41	3,557	42	4,534
North Poudre #6	N Fk Poudre River	0		0		0		0		0
North Poudre #15	N Fk Poudre River	885	16	1,929	35	2,771	50	3,239	59	2,060
Park Creek	Park Creek	348	05	6,243	85	2,207	30	6,491	88	3,168
Cobb Lake	Cache La Poudre R	12,660	57	12,660	57	11,580	52	11,460	51	7,850
Seaman aka	N Fk Poudre River	1,451	29	3,066	61	1,712	34	2,862	57	49
Milton Seaman										
Claymore	Cache La Poudre R	110	11	946	93	197	19	613	60	371
Panhandle	Panhandle Creek	841	36	841	36	841	36	841	35	841
Seeley	Cache La Poudre R	1,048	68	1,069	69	1,069	69	1,069	69	1,007
Warren	Cache La Poudre R	467	20	906	38	708	30	577	24	1,920
Wood	Rollard Draw	1,250	40	2,047	66	1,954	63	2,345	75	1,117
Joe Wright aka	Joe Wright Creek	4,504	63	5,061	71	2,629	37	3,243	45	3,900
Cameron										
Rawhide	Cache La Poudre R	14,729	83	15,209	85	14,824	83	15,111	84	15,801
Horsetooth	Dixon Canyon Cr	92,234	61	137,067	90	67,421	44	131,266	86	65,614

RESERVOIR STORAGE SUMMARIES (Continued)

WATER DISTRICT 3

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr	%	Beg Irr Season	%	Beg Irr Yr	%	Beg Irr Season	%	
Douglass	Cache La Poudre R	4,143	44	5,034	54	3,999	43	4,645	49	6,056
Windsor Res. #8	Cache La Poudre R	2,698	26	7,101	69	4,684	46	6,704	65	7,312
No. 8 Annex	Cache La Poudre R	709	19	2,453	67	1,472	40	1,472	40	2,542
Windsor Res.	Cache La Poudre R	4,139	23	10,364	59	5,616	32	11,959	67	7,271
Chambers	Joe Wright Cr	591	07	3,000	34	412	05	2,719	30	266
Long Draw aka Grand River	Long Draw Cr	3,376	31	3,864	35	3,696	34	4,632	42	1,361
Black Hollow	Cache La Poudre R	4,089	51	4,804	60	3,517	44	4,089	50	4,050
Curtis	Cache La Poudre R	444	35	407	32	484	38	426	33	494
Kluyer	Cache La Poudre R	663	58	640	56	239	21	640	55	785
Long Pond aka Water Supply #5,6,7	Cache La Poudre R	2,362	58	2,833	70	2,044	51	2,776	68	2,521
Rocky Ridge aka Water Supply #1	Cache La Poudre R	3,343	75	3,383	76	3,343	75	3,243	73	3,483
Water Supply #3	Long Pond Res.	1,079	22	2,020	42	2,771	57	4,089	84	1,363
Water Supply #4	Long Pond Res.	584	40	571	39	355	24	390	26	805
Terry aka Larimer Weld	Cache La Poudre R	3,129	38	5,908	73	4,763	58	5,545	68	4,976
Worster	Sheep Creek	124	03	926	25	160	04	978	26	220
Timmath	Duck Slough	2,875	29	9,765	97	3,725	37	8,756	86	3,651
Windsor Lake	Cache La Poudre R	558	38	1,023	70	528	36	700	47	558
Barnes	Barnes Meadows Cr	1,990	85	1,696	72	2,010	86	967	41	2,157
Others		4,324	25	4,556	26	4,078	24	6,206	36	8,904

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 4

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR		1988-1989 IRRIGATION YEAR		End 1989 Water Yr				
		Beg Irr Yr AF	%	Beg Irr Season AF	%		Beg Irr Yr AF	%	Beg Irr Season AF	%
Boulder & Larimer aka Ish	Little Thompson	1,129	15	2,588	35	807	11	1,177	16	1,425
Boyd Lake	Big Thompson	22,846	39	21,992	38	11,123	19	26,115	44	21,894
Carter	Big Thompson	60,606	54	112,046	100	89,115	80	106,000	94	32,774
Donath	Big Thompson	407	35	1,143	100	637	55	600	52	986
Hertha Reservoir	Dry Cr. Hertha	556	33	1,498	88	380	22	1,611	94	556
Horseshoe Reservoir	Big Thompson	2,883	36	3,144	39	2,635	33	2,883	35	2,848
Lake Loveland	Big Thompson	6,996	55	8,777	69	9,767	77	9,767	77	0
Lon Hagler	Big Thompson	4,255	85	4,255	85	4,550	90	4,874	97	5,088
Lone Tree	Big Thompson	2,594	28	8,672	94	3,002	32	7,436	80	4,675
Loveland Lake	Big Thompson	861	37	1,502	64	402	17	629	27	629
Marino	Big Thompson	2,082	37	4,437	80	508	09	1,850	33	1,227
Welch Lake	Big Thompson	3,686	55	3,449	51	3,789	56	4,074	60	5,749
Others		1,352	30	1,795	40	1,714	39	2,035	45	1,712

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 5

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr AF	%	Beg Irr Season AF	%	Beg Irr Yr AF	%	Beg Irr Season AF	%	
Beaver Pond	Beaver Creek	964	45	1,009	47	695	32	1,099	50	0
Foothills	St. Vrain	818	19	2,011	46	780	18	819	18	2,682
Highland #1	St. Vrain	498	48	679	66	588	57	1,033	100	874
Highland #2	St. Vrain	2,409	65	3,024	81	3,660	98	3,192	85	3,226
Highland #3	St. Vrain	577	35	1,491	92	566	35	1,669	102	1,491
McIntosh	St. Vrain	837	33	1,303	51	1,241	49	1,179	46	2,254
Pleasant Valley	St. Vrain	1,951	63	2,649	86	618	20	2,743	89	2,492
Oligarchy Res. #1	St. Vrain	1,630	94	1,698	98	1,361	78	1,564	90	1,640
Union	St. Vrain	9,063	71	9,714	76	6,132	48	7,246	56	8,275
Left Hand Park	Left Hand Creek	1,228	75	1,228	75	712	43	627	38	1,328
Left Hand Valley	Left Hand Creek	1,674	44	2,422	64	2,432	65	3,149	83	2,596
Button Rock	St. Vrain	11,654	75	8,157	53	12,622	82	8,767	56	15,223
New Thomas	St. Vrain	2,113	57	2,264	61	2,068	55	2,246	60	1,939
Lagermann	Left Hand Creek	732	58	776	61	688	54	758	59	812

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 6

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr	%	Beg Irr Season	%	Beg Irr Yr	%	Beg Irr Season	%	
Albion	Creek	1,111	100	1,111	100	1,111	100	350	31	1,111
Barker	Creek	4,721	41	575	05	6,814	59	2,592	22	8,057
Baseline	Creek	1,409	27	3,528	67	1,902	36	2,461	46	1,862
Boulder	Creek	6,225	36	5,405	31	11,388	65	11,507	66	7,241
Goose	North Boulder Cr.	1,036	100	1,036	100	900	87	450	43	1,036
Gross	South Boulder Cr.	20,912	50	12,771	30	26,969	64	15,975	38	25,358
Hillcrest	Creek	1,899	89	2,049	96	1,810	85	1,959	91	1,878
Leggett	Creek	1,371	88	1,483	96	1,304	84	1,416	91	1,355
Marshall	South Boulder Cr.	4,922	47	9,222	88	5,085	49	7,723	73	3,929
McKay	South Boulder Cr.	181	21	181	21	211	25	211	24	241
Panama	Creek	2,829	57	4,345	87	2,968	59	2,864	57	3,585
Silver	North Boulder Cr.	3,730	94	2,361	59	3,154	79	1,280	32	3,595
Six Mile	Creek	575	40	1,088	76	657	46	1,288	90	902
Valmont	South Boulder Cr.	6,712	90	7,067	95	6,511	88	6,860	92	6,670

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 7

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR			1988-1989 IRRIGATION YEAR			End 1989 Water Yr		
		Beg Irr Yr AF	%	Beg Irr Season AF	Beg Irr Yr AF	%	Beg Irr Season AF			
Ralston	Ralston Creek	6,390	50	5,512	43	7,072	55	6,985	54	7,650
Long Lake	Ralston Creek	545	40	391	29	191	14	396	29	196
Tucker	Ralston Creek	311	28	426	39	181	17	548	50	220
Leyden	Clear Creek	433	38	421	37	594	52	460	39	760
Hyatt	Clear Creek	510	47	710	65	444	41	547	49	502
Standley	Clear Creek	33,117	78	34,306	81	29,452	70	29,540	70	32,916
Coors B #3	Clear Creek	2,445	97	1,649	66	2,108	84	500	19	2,514
Coors B #4	Clear Creek	3,500	94	1,001	27	1,976	52	2,237	59	3,356
Blunn	Clear Creek	4,587	79	4,552	78	4,136	71	4,450	76	4,900
Others		4,404	73	3,527	59	3,430	57	3,600	59	3,616

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 8

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR			1988-1989 IRRIGATION YEAR			End 1989 Water Yr	
		Beg Irr Yr AF	%	Beg Irr Season	Beg Irr Yr AF	%	Beg Irr Season		
Aurora Rampart	Gulch	561	47	866	1,031	86	955	79	1,068
Chatfield	South Platte	17,060	24	27,366	20,836	29	21,532	29	19,958
Cherry Creek	Cherry Creek	13,728	06	13,832	13,278	05	14,239	05	12,789
McLellan	Dad Clark Gulch	4,932	82	4,875	5,274	88	4,798	79	4,634
Platte Canon	South Platte	897	93	842	940	98	610	63	918
Quincy	South Platte	2,298	83	2,569	2,555	92	2,514	90	2,527
Strontia Springs	South Platte	6,972	89	6,318	7,586	86	7,654	97	7,359

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 9

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr AF	%	Beg Irr Season AF	%	Beg Irr Yr AF	%	Beg Irr Season AF	%	
Soda #1 & #2	Bear Creek	813	54	1,470	98	1,040*	46	1,675*	74	1,054*
Bowles	Bear Creek	1,194	48	855	35	506	20	2,302	93	2,097
Patrick	Bear Creek	1,113	100	1,113	100	1,019	92	1,136	45	1,035
Bear Creek Reservoir	Bear Creek	2,056	03	1,808	02	1,956	02	1,956	02	1,968
Marston	South Platte	5,894	34	7,214	42	6,652	39	10,671	61	10,199
Others		3,343	56	3,950	66	2,571	43	1,648	31	2,232

*Soda Lakes #1 & #2 combined in 1988-89

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 23

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR				1988-1989 IRRIGATION YEAR				End 1989 Water Yr
		Beg Irr Yr AF	%	Beg Irr Season AF	%	Beg Irr Yr AF	%	Beg Irr Season AF	%	
Antero	S Fk South Platte	20,081	23	19,819	23	20,015	23	19,950	23	20,013
Montgomery	Mid. Fk. S. Platte	3,341	66	212	04	4,728	93	517	10	4,802
Eleven Mile	Mid. Fk. S. Platte	99,587	102	96,832	99	99,289	102	99,933	102	99,075
Spinney Mountain	Mid. Fk. S. Platte	35,954	66	39,499	72	37,416	69	29,924	55	44,319

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 80

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR			1988-1989 IRRIGATION YEAR			End 1989 Water Yr		
		Beg Irr Yr AF	%	Beg Irr Season AF	%	Beg Irr Yr AF	Beg Irr Season AF		%	
Cheesman Wellington	S. Fk. S. Platte	47,640	60	66,496	84	61,701	78	66,159	83	63,787
	N. Fk. S. Platte	2,725	37	2,725	37	3,210	43	3,131	42	2,501
Others		690	56	17	01	0	17	01	01	54

RESERVOIR STORAGE SUMMARIES

WATER DISTRICT 64

RESERVOIR NAME	STREAM SOURCE	PREVIOUS IRRIGATION YEAR			1988-1989 IRRIGATION YEAR			End 1989 Water Yr	
		Beg Irr Yr AF	%	Beg Irr Season	Beg Irr Yr AF	%	Beg Irr Season		
Prewitt	South Platte	14,680	51	27,670	22,930	80	23,250	81	20,570
North Sterling	South Platte	16,770	20	73,720	9,290	11	72,300	88	24,310
Julesburg	South Platte	18,408	65	21,214	9,396	33	20,930	74	8,467

1989 WATER DIVERSION SUMMARIES BY DISTRICT IN AF

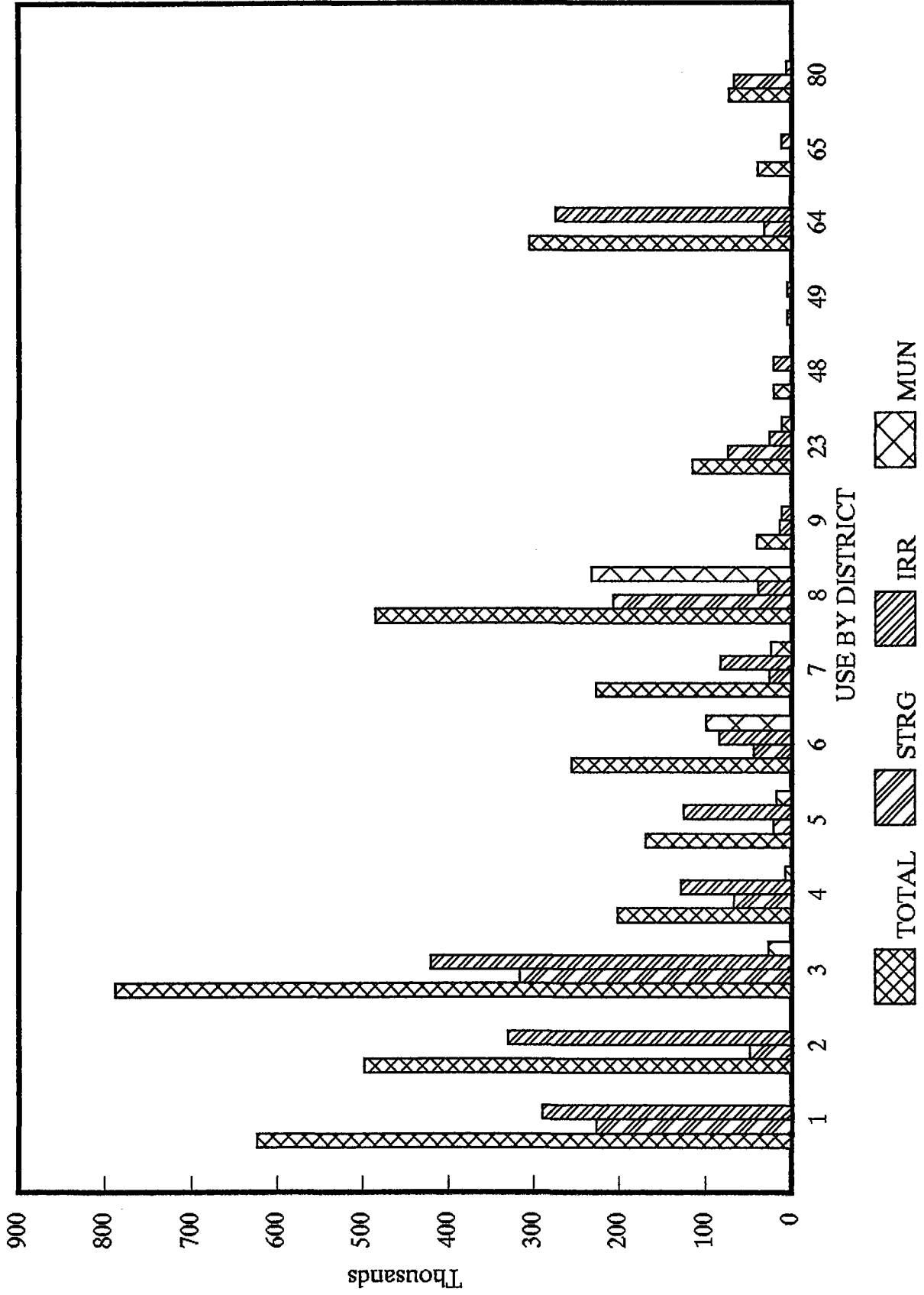
WD	TOTAL DITCHES REPORTING				NU	ESTIMATED NUMBER OF DITCH/WELL VISITATIONS	TOTAL DIVERSIONS -AF-	TOTAL DIVERSIONS TO STORAGE -AF-	TOTAL DIVERSIONS -AF-	IRRIGATION		AVERAGE AF PER ACRE
	WA	NWA	NR	NR						NUMBER OF ACRES	IRRIGATED	
01	236		4,638		95	622,837	227,226	289,891	189,225	1.53		
02	164		3,901		98	498,654	47,753	330,212	244,326	1.35		
03	200		2,579		60	787,837	316,374	420,672	262,425	1.60		
04	86	2	1,154		53	201,212	66,179	127,986	107,706	1.19		
05	199		1,056		41	169,196	20,838	124,439	111,780	1.11		
06	172	2	1,589		134	255,145	43,569	84,224	100,331	.84		
07	298		1,313		126	226,760	25,537	82,811	51,250	1.62		
08	328	23	4,039		382	485,448	207,106	39,407	12,414	3.17		
09	57		1,423		52	29,604	13,464	11,579	5,845	1.98		
23	291	20	1,080		328	114,576	73,086	25,153	15,298	1.64		
48	72	5	41		7	20,713		20,713	4,615	4.48		
49	21		39		17	4,822		4,822	1,555	3.10		
64	125	5	1,714		65	305,029	30,723	273,757	151,642	1.80		
65	22		111		9	39,178		11,327	4,720	2.40		
80	157	33	755		94	72,667	66,336	6,115	1,545	3.96		
TOTALS	2,428	90	25,432		1,561	3,833,678	1,138,191	1,853,108	1,264,677	1.47		

1989 WATER DIVERSION SUMMARIES BY DISTRICT IN AF (CONTINUED)

WD	TRANSMOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	MUNICIPAL	INDUSTRIAL	RECREATIONAL	FISHERY	COMMERCIAL	RECHARGE	AUG
01				19,400				28,229	9,478
02				3,491	730	365	9,118	6,084	8,458
03		26,791							1,065
04		7,047							5,345
05		17,454							9,022
06		98,545		5,449					266
07		24,293		51,841					16,386
08		232,413		3,079		4,654	83		3,957
09		1,640							89
23		12,006		1,655	3,626	177	456	1	5,733
48									
49									
64							990	6,612	15,098
65	24,348					3,503			37
80		207					2	25	111
TOTALS		420,396		84,915	4,356	8,699	10,649	40,951	75,045

DIVISION 1

1989 DIVERSIONS



WATER COURT ACTIVITIES
(CALENDAR YEAR (1989))

No. Applications for Decrees	299
No. Consultations with Referee	302
No. Decrees Issued by Water Court	609
No. Meetings With Applicant/Denver Office Court Preparation	95
No. Resume Reviews Denver Office	12

TYPES OF DECREES

Findings Of Diligence On Conditional Rights	53
Conditional Water Rights Made Absolute	35
Augmentation Plans Approved (Including Exchanges)	19
Cases Involving New Surface Water Diversions	64
Cases Involving Alternate Points Of Diversion	97
Cases Involving Transfers	14
Cases Awarding Change Of Location	75
Cases Awarding Change Of Use	76
Cases Involving Reservoir Storage	75
Cases Involving Groundwater (Nontributary/Tributary)	75
Cases Involving Springs	65
Cases Involving In-Stream Flows	20
Number Of Cases Denied	5
Number Of Cases Dismissed	51
Conditional Water Rights Abandoned	13
Water Rights Abandoned	27
Requests For Withdrawal Allowed	10

Type Structures In Decrees

No. Ditches	450
No. Reservoirs	250
No. Wells	792
No. Other	156

ACTIVITY SUMMARY

ACTIVITY	TOTAL CALENDAR YEAR
Number of Professional and Technical Staff	9
Number of Clerical Staff	2
Number of Water Commissioner ...FTE Assigned Part-Time	17 9
Number of Decreed Water Surface Water Rights	*10,000
Number of Surface Water Rights Administered	6,394
Number of Wells	71,458
Number of Plan For Augmentations	355
Number of Consultations With Water Referee	302
Number of Water Court Appearances	190
Number of Meetings With Water Users(Office Staff Only)	578
Number of Contacts to give public assistance on water matters Division 1 Office Staff only (letters, telephone, & personal contacts)	14,545

Alan Berryman
Division Engineer

RIVER CALL 1988-1989

Calling Priority

Date Call Initiated 1988-1989	Date Call Released 1988-1989	Structure Name	Appropriation District Date	Person Placing Call	Districts Affected
11/01/88	11/16/88	Burlington Strg.	11/20/1885	Keith Delventhal	8, 9, 23, 80
11/16/88	12/08/88	Horse Creek	03/17/1911	Keith Delventhal	8, 9, 23, 80
12/08/88	03/30/89	Denver Intake	12/06/1910	Ken Salser	8, 23, 80
12/23/88	02/14/89	Denver Strg.	12/28/1977	Ken Salser	8, 23, 80
02/29/89	03/30/89	Nevada Ditch #4	08/30/1861	Ken Salser	8, 23, 80
03/30/89	04/07/89	Barr Lake	01/13/1909	Manuel Montoya	8, 9, 23, 80
04/07/89	04/09/89	Burlington	11/20/1885	Keith Delventhal	8, 9, 23, 80
04/09/89	04/10/89	Barr Lake	01/13/1909	Manuel Montoya	8, 9, 23, 80
04/10/89	04/13/89	Marston	04/01/1911	Denver Wtr Board	8, 9, 23, 80
04/10/89	04/12/89	Nevada Ditch	08/30/1861	Ken Salser	8
04/13/89	04/24/89	Burlington	11/20/1885	Manuel Montoya	8, 9, 23, 80
04/24/89	04/29/89	Lower Latham	11/14/1877	Phil Schlagel	4, 5, 6, 7, 8, 9, 23, 80
04/29/89	05/11/89	Springdale	07/19/1886	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/07/89	05/14/89	Independent	11/20/1876	Keith Delventhal	7, 8, 9, 23, 80
05/09/89	05/11/89	Lower Latham	11/14/1877	Phil Schlagel	4, 5,
05/11/89	05/15/89	Pawnee	06/22/1882	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/15/89	05/16/89	Springdale	07/19/1886	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/16/89	05/19/89	Dist. 1 Reservoir	12/31/1929	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/16/89	05/18/89	Barr Lake Enlrg.	01/13/1909	Keith Delventhal	8, 9, 23, 80
05/16/89	05/18/89	Cheesman	06/27/1889	Denver Wtr Board	23, 80
05/18/89	05/22/89	Burlington	11/20/1885	Keith Delventhal	7, 8, 9, 80
05/19/89	05/22/89	Springdale	07/19/1886	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/22/89	05/30/89	Lowline	10/14/1882	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
05/31/89	06/01/89	Springdale	07/19/1886	Elton Watson	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/01/89	06/01/89	Bi.jou	10/01/1888	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/01/89	06/02/89	Riverside	05/31/1907	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/02/89	06/03/89	Bi.jou	10/01/1888	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/03/89	06/04/89	Riverside	05/31/1907	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
06/04/89	06/22/89	Dist. 1 Reservoir	12/31/1929	Mabel Cuning	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80

RIVER CALL (Continued)

Calling Priority

Date Call Initiated 1988-1989	Date Call Released 1988-1989	Structure Name	Appropriation District Date	Person Placing Call	Districts Affected
06/07/89	06/19/89	Cheesman	06/27/1889	Denver Wtr Board	23,80
06/07/89	06/19/89	Barr Lake Enlrg.	01/13/1909	Keith Delventhal	8,9,23,80
06/19/89	06/24/89	Burlington	11/20/1885	Manuel Montoya	8,9,23,80
06/19/89	06/22/98	Riverside	05/31/1907	Burt Woodward	2,3,4,5,6,7,
06/22/89	06/26/89	Bi.jou	10/01/1888	Mabel Cunning	2,3,4,5,6,7,8,9,23,80
06/26/89	06/28/89	Harmony #1	04/28/1895	Elton Watson	1,2,3,4,5,6,7,8,9,23,80
06/27/89	06/28/89	Cheesman	06/27/1889	Denver Wtr Board	8,23,80
06/28/89	06/29/89	Burlington	11/20/1885	Manuel Montoya	7,8,9,23,80
06/28/89	06/29/89	Springdale	07/19/1886	Elton Watson	1,2,3,4,5,6,7
06/29/89	07/01/89	Lowline	11/14/1882	Elton Watson	1,2,3,4,5,6,7,8,9,23,80
06/30/89	07/01/89	Farmers Independent	11/20/1876	Ken Timmerman	7,8,9,23,80
07/01/89	07/03/89	Brighton	11/01/1871	Keith Delventhal	7,8,9,23,80
07/03/89	07/06/89	Evans #2	10/05/1871	Keith Delventhal	7,8,9,23,80
07/01/89	07/31/89	Pawnee	06/22/1882	Elton Watson	1,2,3,4,5,6,7,8,9,23,80
07/06/89	07/13/89	Lupton Bottom	09/15/1873	Keith Delventhal	7,8,9,23,80
07/13/89	07/19/89	Farmers Independent	11/20/1876	Keith Delventhal	7,8,9,23,80
07/19/89	07/04/89	Platteville	10/15/1873	Keith Delventhal	7,8,9,23,80
07/21/89	07/21/89	Lupton Bottom	09/15/1873	Keith Delventhal	7,8,9,23,80
07/21/89	07/28/89	Evans #2	10/05/1871	Keith Delventhal	7,8,9,23,80
07/28/89	07/29/89	Lupton Bottom	09/15/1873	Keith Delventhal	7,8,9,23,80
07/29/89	07/29/89	Platteville	10/15/1873	Keith Delventhal	7,8,9,23,80
07/29/89	07/30/89	Fulton	07/08/1876	Keith Delventhal	7,8,9,23,80
07/31/89	08/03/89	Dist. 1 Reservoir	12/31/1929	Mabel Cunning	2,3,4,5,6,7,8,9,23,80
08/02/89	08/07/89	Burlington	11/20/1885	Keith Delventhal	7,8,9,23,80
08/03/89	08/04/89	Bi.jou	10/01/1888	Mabel Cunning	2,3,4,5,6,7
08/04/89	09/09/89	Springdale	07/19/1886	Elton Watson	1,2,3,4,5,6,7
08/07/89	08/09/89	Independent	11/20/1876	Keith Delventhal	2,7,8,9,23,80
08/09/89	08/11/89	Platteville	10/15/1873	Keith Delventhal	2,7,8,9,23,80
08/11/89	08/13/89	Evans #2	10/05/1871	Keith Delventhal	2,7,8,9,23,80

RIVER CALL (Continued)

Calling Priority

Date Call Initiated 1988-1989	Date Call Released 1988-1989	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
08/13/89	08/14/89	Brantner	01/15/1881	02	Keith Delventhal	7, 8, 23, 80
08/14/89	08/15/89	Fulton	07/08/1876	02	Keith Delventhal	2, 7, 8, 9, 23, 80
08/15/89	08/23/89	Burlington	11/20/1885	02	Keith Delventhal	2, 7, 8, 9, 23, 80
08/23/89	09/09/89	Evans #2	10/05/1871	02	Keith Delventhal	2, 7, 8, 9, 23, 80
09/09/89	10/12/89	Barr Lake Enlrg.	01/13/1909	02	Keith Delventhal	2, 8, 9, 23, 80
09/10/89	09/22/89	City Right	05/01/1899	08	Denver Wtr Board	8, 9, 23, 80
10/11/89	12/01/89	Chatfield	05/29/1975	08	Denver Wtr Board	8, 9, 23, 80
10/12/89	10/16/89	Denver Intake	05/01/1889	08	Denver Wtr Board	8
10/16/89	12/01/89	Denver Intake	12/06/1910	08	Denver Wtr Board	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, 1988, the mean daily flow dropped below 120 cfs on 136 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 1987 water year, the last year for which official figures are available, was as follows:

<u>STREAM</u>	<u>ADJUSTED ALOCATIONS</u>	<u>CONSUMPTIVE USE SURFACE & GW</u>	<u>% OF ADJ. ALLOCATION</u>
N. Fk. Republican River	8,710	4,270	49.0
S. Fk. Republican River	15,470	9,310	60.2
Arikaree River	7,920	4,060	51.3
Beaver Creek	4,320	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 1989, the transmountain diversions under the Laramie River Compact totaled 19,699 acre feet of the 19,875 acre feet compact allowance. The meadowland diversions totaled 20,713 acre feet or some 70% of the allotment. Total Colorado diversions were 40,412 acre feet or 82% of the total allotment of 49,375 acre feet.