

ANNUAL REPORT
DIVISION NO. 1
1981 IRRIGATION YEAR
NOV. 1, 1980 - OCT. 31, 1981

BY

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DIVISION OF WATER RESOURCES
WATER DIVISION I

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January 22, 1982

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

Dear Dr. Danielson:

Please find submitted herewith the Annual Report for Irrigation Division No. 1 for the 1981 water year. Due to the fact that some of the information presented is based upon preliminary tabulations and calculations, there may be some subsequent modification of such information upon finalizing the basic data. Such modifications are expected to be minor in nature.

The encouragement, guidance, and assistance that we have received from you and your staff as well as the outstanding efforts of my own staff have been greatly appreciated.

Very truly yours,

James R. Clark
Division Engineer

JRC/mah

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1981 ANNUAL REPORT

INTRODUCTORY STATEMENT

Division 1 covers an area of some 28,068 square miles or approximately the northeast one-fourth of the State of Colorado. Of this, approximately 19,500 square miles is in the South Platte River Basin, 8,165 square miles in the Republican River Basin, and 403 square miles in the Laramie River Basin.

SOUTH PLATTE RIVER

The South Platte River starts at the Continental Divide, flows through South Park, down mountain canyons, out into the plains in the Denver area thence northeasterly and into Nebraska near the northeast corner of Colorado. The flow of the South Platte is augmented by a number of tributaries in the South Park area, the principal ones being the Middle and North Forks of the South Platte and Tarryall Creek. After leaving the mountains, the South Platte is further augmented by several major tributaries arising at and east of the Continental Divide and flowing to the South Platte from the north and west. These major tributaries entering the South Platte in the Denver to Greeley area are Bear, Clear, Boulder and St. Vrain Creeks, and the Big Thompson and Cache La Poudre Rivers. Only normally minor and intermittent streams supplement the river flow from the South and East. However, some of these such as Plum, Cherry, Boxelder, Cat and Pawnee Creeks from the north and west are each capable of producing a major flood due to the extent and topography of their individual water sheds when subjected to intense precipitation.

In addition to the obvious tributary streams, the South Platte River is further supplemented very extensively, as are the tributaries themselves, by what is commonly referred to as return flow. This is water from springs, waste ditches, drains, seepage, etc., resulting generally from diversions for various uses, precipitation, and high water tables. Although the return flows resulting from the initial use of transmountain water have historically been considered a part of the natural stream subject to distribution under the priority system, the City of Denver continued the operation that they instituted in September 19, 1976 at which time they invoked the provisions of 38-82-106, CRS 1973, relating to the right of reuse of imported water. Through a detailed accounting system they are able to identify that portion of the effluent from Metro Sewer which is attributable to their current importation of Blue River water through the Roberts Tunnel. Denver then diverts by exchange at their intake as much of this calculated Blue River water return flow as the river flow at intake will support without injury to intervening water rights in that section of the stream between intake and sewer discharge. Denver also continues to study the treatment of wastewater for reuse as potable water through the operation of a pilot treatment plant. Denver requested permission to initiate reuse of water through Moffat Tunnel beginning January 1, 1979. This practice has not been approved as of this date.

The City of Aurora also claimed the reuse of their Homestake imported water to the extent that it could be identified and exchanged back up to their intake. This exchange was quite limited due to the lack of available stream flows to support the exchange in addition to supplying intervening water rights and the Denver exchange previously discussed. During those periods when Aurora could not make its own exchange, they did realize some monetary benefits from the sale of their trans-mountain effluent to the Central Colorado Water Conservancy District to be used as augmentation water in support of the Central member wells.

The elevations in the South Platte Basin vary from 14,000 feet at points along the Continental Divide to 3,400 feet at the Colorado-Nebraska line. The western one-third of the basin is mountainous in character and provides the principal source of water as the result of precipitation.

Of the 12,481,000 acres in the South Platte Basin, 9,469,470 acres are in farms and ranches. The balance of the area is owned by federal and state governments, public agencies, or included within municipalities. Within the farm areas are 1,239,655 irrigated acres and 1,936,745 acres of dry land according to the 1977 Agricultural Census.

The principal use of water in the mountain valleys is for meadow irrigation. Large volumes of water are released on meadows adjacent to the streams and, of this volume, a major proportion returns to the stream for reuse at lower elevations. The largest area of mountain valley irrigation is in South Park at elevations up to 11,000 feet. Other uses in the mountain areas include those of small municipalities, domestic, stock, power, mining, commercial and recreation needs.

The greatest use of water, by far, in the South Platte Basin is for agricultural purposes in the plains area at elevations between 3,500 and 5,000 feet. The water here supports a well developed diversified agricultural economy that ranks high nationally in productivity. Much of the demand for water in areas downstream some 40-50 miles from the mountains is supplied from wells and by return flow from uses further upstream.

Some 5,525 wells operating under augmentation plans and as alternate points of diversion for surface rights withdrew an estimated 590,000 acre feet of water for irrigation from underground sources. Wells operating in approved augmentation did so either by replacing water to the stream to at least partially offset the stream depletion they were causing or by operating under decreed priorities which were legally entitled to be used in that manner. The two major augmentation plans for irrigation wells were G.A.S.P. with a membership of 3,076 wells and Central Colorado Conservancy District with a membership of 927 wells.

Although several thousand proposed small capacity domestic and in-house use wells have been included in decreed augmentation plans, the actual construction and use of such wells is, as yet, comparatively minimal.

As a result of the inability in the summer of 1976 to move replacement surface water down the South Platte River in the reach between Harmony No. 1 and South Reservation Ditches, G.A.S.P. constructed three wells upstream from the South Reservation headgate near Ovid with a combined capability to pump 16 cfs. In 1978, pump sizes on these three wells was increased to 40 horsepower from 25. This increased production to 22 cfs. G.A.S.P. reserved the first use of these wells to supply the replacement water for which they were responsible in that area. Any remaining capacity was then made available to those water users in that general area who could make use of the water either directly or by exchange. The right to use the additional capacity was on the basis of priority of ditch rights with the user paying the prorated operation and ownership costs.

A problem which has developed in recent years and which appears to be accelerating in magnitude is that of expanded use. The principal tool for expanding the use of water is the sprinkler system. Due to the greater efficiency of sprinkler application as compared to flood or row irrigation, only some 50 percent to 70 percent as much water per unit area is required by the sprinkler to satisfy crop requirements. Consequently with a given amount of water a farmer can increase his crop average 50 percent to 100 percent by converting to sprinklers. Although the individual farmer making this expanded use benefits from increased total yeild, the whole river system supply is reduced by the amount of the consumption on the increased acreage. Crop water requirements remain substantially constant regardless of means of application so sprinkler irrigation over increased acreage reduces the net return flows to the stream system thereby depriving downstream users of water upon which they have historically depended for their needs.

A case filed in 1978 against the Weldon Valley and some irrigators under that system was completed in 1979. This case essentially provides that any expansion accomplished before the date of the order would be allowed. Further expansion would not be allowed. We have sent letters to the ditch companies in the South Platte Basin alerting them to our policy, however, we are still having trouble controlling expansion.

REPUBLICAN RIVER

The Republican River Basin in Eastern Colorado covers 5,226,000 acres. Of this area, 4,350,770 acres are in farm and ranch land with 226,109 acres under irrigation and 4,124,661 acres of dry land as reported in the 1969 Agricultural Census.

This area is relatively dry and the surface streams, many of which are intermittent, provide only enough water for some lands adjacent thereto. The normal precipitation in this area is about 17.1 inches of which 13.6 inches or 80 percent falls during April through September period.

Supplies from surface streams continue to decline. This decline is generally attributed to the operation of wells in the designated ground water basins where the regulatory guidelines provide for 40

percent depletion of available supplies in the Ogallala formation within a 25 year period. Studies indicate that the Ogallala has historically provided a substantial portion of the surface flows and consequently as those aquifer levels drop the normal outflow from them is diminished.

LARAMIE RIVER

The Laramie River Basin in North Central Colorado contains 258,000 acres of which 4,800 acres are irrigated and 15,000 acres are non-irrigated ranch land according to the 1964 Agricultural Census.

This basin is a mountain valley with the principal water use being for meadow irrigation and livestock purposes. There are no municipalities or villages in this basin so the domestic uses are minimal.

The Laramie River and its tributaries did not produce enough water during the 1977 irrigation season to satisfy the allotments in Colorado under the Laramie River Agreement and the 1957 Federal Court Order. The said court order provides that 19,875 acre feet of Laramie River water or its tributaries in Colorado may be annually diverted for use outside of the Laramie River Basin and that in addition 29,500 acre feet may be annually diverted for irrigation use within the Laramie River drainage with no more than 1,800 acre feet of such amount to be used after July 31 of each year. The Laramie River Agreement between the users of water in Colorado, being the meadowland users and the transmountain diverters, further provides for volumetric allotments to designated lands within the basin. This amounts to 60,887 acre feet per acre for the season of which only 0.3715 acre feet may be diverted after July 31.

The 1981 meadowland diversions totaled 24,290 acre feet and trans-basin diversions to Water District No. 3 totaled 18,230 acre feet from those sources subject to the Federal Court Order.

The continuing high cost of agricultural production and reduced income have forced the sale of some ranches in the Laramie River Valley.

1981 AT A GLANCE

Water Year 1981 began with above normal temperatures and below average precipitation. The May 1 snowpack was only 20 percent of normal and may have been the minimum of record. All predictions indicated stream flows would be at or below minimums of record. Reservoirs were 8 percent above normal, the only bright spot in an otherwise bleak forecast. Above average precipitation in March and May improved crop predictions in that irrigation was not needed to get many crops up allowing reservoirs to be saved for late summer. Late summer precipitation was sufficient in amounts and timely enough to ease the irrigation requirements of most crops. Above seasonal temperatures allowed crops to take advantage of the available moisture and mature early. Most crop yields were near normal but prices were down from last year.

Well usage was high and the search for wells operating without benefit of an approved plan for augmentation continued this summer. As in the past, many well owners decided to join one of the established plans rather than fighting when costs were compared. Some continued to fight as a matter of principle and were given their opportunity before the Judge. Of the nineteen complaints heard October 29, eleven resulted in stipulations that the wells would not be operated without benefit of an approved plan for augmentation. The other eight have been set for hearing.

An order was issued May 27 to lower the level of Horsecreek Reservoir two feet as soon as possible. Above average precipitation and a relatively full reservoir had caused the settling of approximately 300 feet of the dam as much as 20 inches. There were many indications that dam failure was eminent. Men and equipment were put to work immediately building an earth berm along the section of dam that had settled. Fortunately, the rains let up and the earth moving work was completed so that the dam did not fail.

The Colorado Water Conservation Board has expended time and money looking into the feasibility of various reservoir projects that had been studied in the past but were dropped when Federal funding was cut. The study was aimed at determining if there were any of these projects that would provide a high benefit to cost ratio and still be priced low enough that CWCB and other funding could be secured for construction. The enormous runoff during 1980 and the lack of runoff during 1981 point out the need for additional storage facilities within the Division.

The following tabulation reveals the percentage of the stream flows for 1981 as compared with the previous 14 years, both for the entire water year and for the April through September irrigation season at several of the principal stream gaging stations. Stream flows for 1981 are from preliminary records.

COMPARATIVE STREAM FLOWS

	WATER YEAR			APRIL THRU SEPTEMBER		
	1967 thru 80 AVERAGE AC.FT.	1981 AC.FT.	1981 % OF AVG.	1967 thru 80 AVERAGE AC.FT.	1981 AC.FT.	1981 % OF AVG.
South Platte at Denver	261,600	113,300		212,400	67,760	
South Platte at Henderson	376,800	182,700	48	278,100	111,400	40
South Platte at Ft. Lupton	384,000	208,200	54	275,900	112,500	41
South Platte at Kersey	812,600	398,600	49	546,100	165,110	30
South Platte at Weldona	555,500	268,500	48	377,900	117,400	31
South Platte at Balzac	442,300	194,300	44	333,100	105,400	32
South Platte at Julesburg	522,000	236,500	45	303,100	93,370	31
Clear Creek at Lawson	98,480	57,190	58	84,620	45,360	54
Clear Creek at Derby	70,990	15,050	21	59,220	10,010	17
Boulder Creek at Orodell	57,100	28,000	49	47,400	21,140	45
St. Vrain Creek at Lyons	90,540	46,650	52	84,000	40,050	48
St. Vrain Creek nr. Platteville	185,200	92,010	50	130,000	43,600	34
Big Thompson at Canyon	64,210	40,440	63	55,420	31,960	58
Big Thompson nr. La Salle	92,110	55,300	60	63,950	25,860	40
Cache La Poudre at Canyon	240,900	137,600	57	227,300	121,200	53
Cache La Poudre nr. Greeley	126,000	69,490	55	82,850	34,100	41

DIVISION 1 PERSONNEL

NAME	WATER DISTRICT	POSITION	CLASSIFICATION		DATE OF LAST STEP CHANGE	MONTHS WORKED	BUDGETED	PERS. VEH.	MILEAGE	
			GRADE-STEP	STATE VEH.					STATE VEH.	
Anderson, Dale	7	WC-C	59	6	8-1-81	12	12	21,311		
Bell, Ted		WRE-B	68	7	7-1-80	12	12			12,734
Bentley, Morgan	6	WC-C	59	2	6-1-81	12	12	14,372		
Blank, Edward		Sr. WRE	83	6	2-1-81	12	12			
Blewitt, Lloyd	4	Sr. WC	63	7	12-1-73	12	12	5,906		
Brazelton, Don		Eng. Tech. II	67	6	9-1-80	12	12			12,530
Clark, James	8-80	Supv. WRE	87	7	7-1-79	12	12			7,180
Clayton, Joe		Sr. WC	63	7	11-1-71	12	12			9,328
Coffer, Harold		Sr. WRE	83	6	7-1-78	12	12			12,757
Cooper, Robert		WRE-C	73	6	1-1-79	12	12			23,911
Curry, Mark	23	WC-B	53	5	6-1-81	12	12	17,054		
Dalby, Les		WC-B	59	2	6-1-81	12	12			3,580
Davison, Arlyn	65-79	Sr. WC	63	7	1-1-75	12	12	2,574		
Delventhal, Keith	2	Sr. WC	63	7	1-1-75	6	7	10,774		
Durand, Carolyn	48	WC-A	47	3	6-1-80	2	2	1,745		
Gabriel, Don	1	WC-A	47	1				7,156		
Harman, Rachel		Typist B	34	7	11-1-81	12	12			
Hodgson, Mel	5	WC-A	47	6	4-1-80	7	7	9,680		
Honn, Mary Anne		Sr. Secr.	51	6	7-1-81 (hire date)	12	12			
Howard, Jonathan		WC-A	47	1		3	3	153		
Iverson, Amy	23	WC-A	47	1		4	4	7,460		
Lee, Wayne	4	WC-A	47	6	10-1-77	9	8	6,524		
Lockhead, John		WRE-A	63	4	6-1-81	12	12	15,810		
McDanold, Jim		WRE-C	73	5	7-1-81	12	12	13,800		
Meehl, Paul	2	Sr. WC	63	7	1-1-74	12	12	15,938		
Morris, Sharon	23	WC-A	47	1		5	5	6,220		
Neutze, John	3	Pr. WC	67	7	7-1-79	12	12	534		4,457
Palmer, Donald	5	WC-C	59	7	12-1-74	12	12	14,733		
Platt, Thomas (Dan)	6	WC-A	47	1		3	7	13,044		
Rice, Don	6	WC-B	53	2	7-1-81	5	12	2,670		
Salser, Kenneth	8-80	WC-B	53	5	5-1-81	12	12	13,756		
Samples, Bob	1	Sr. WC	63	7	4-1-77	12	12	1,389		18,653
Schildt, Wayne		WRE-A	63	3		12	12	14,720		
Sievers, George	3	WC-B	53	6	5-15-81	6	12			
Swedlund, Kent	64	WC-A	47	3	6-1-80	3	3	5,449		
VanGordon, Ralph	9	WC-B	53	7	7-1-70					
Vannorsdel, Carolyn	48	WC-B	53	6	6-1-81	5	7	6,819		

DIVISION 1 PERSONNEL

NAME	WATER DISTRICT	POSITION	CLASSIFICATION		DATE OF LAST STEP CHANGE	MONTHS WORKED	BUDGETED	PERS. VEH.	STATE VEH.	MILEAGE
			GRADE-STEP	GRADE-STEP						
Wagner, Mabel	1	WC-A	47	3	9-1-81	12	12	27,648		
Watson, Elton	64	Sr. WC	63	7	7-1-80	12	12	21,200		
Wittler, Randall		WC-B	53	1		12	12	30		
Wittler, Rodney		Eng. Aide A	51	1		3	3			

*Wyscaver, Pearl Terminated 6-18-81

WATER SUPPLY

A. SNOW PACK

Below normal snowpack in the higher mountains led forecasters to predict that spring and summer snow pack would be considerably below normal. High temperatures coupled with low precipitation reduced the mountain snowpack to record low levels. As of May 1, snowpack levels were only 20 percent of normal and only 14 percent of the same time a year ago. As a result, all streams in the South Platte Basin were predicted to produce flows near or below minimums of record. Reservoir levels were 8 percent above average and soil moisture was fair in irrigated areas on May 1. Tabulations of water supply outlook and snow measurement summaries as of May 1, 1981 are as follows:

WATER SUPPLY OUTLOOK *

<u>STREAM</u>	<u>SPRING SEASON</u>	<u>LATE SEASON</u>
Coal Creek	Poor	Poor
N. Fork S. Platte	Poor	Poor
N. Fork Cache La Poudre	Fair	Poor
Ralston Creek	Poor	Poor
Rock Creek	Poor	Poor
South Platte-Greeley to Fort Morgan	Poor	Poor
South Platte-Fort Morgan to Sterling	Poor	Poor
South Platte below Sterling	Poor	Poor

*Expressed as POOR, FAIR, AVERAGE, EXCELLENT, with respect to Usual Supply

SUMMARY OF SNOW MEASUREMENTS

<u>RIVER BASIN AND/OR SUB-WATERSHED</u>	<u>NO. OF COURSES AVERAGED</u>	<u>THIS YEAR'S SNOW WATER AS PERCENT OF:</u>	
		<u>LAST YEAR</u>	<u>AVERAGE*</u>
Big Thompson	3	11	17
Boulder	5	18	25
Cache La Poudre	9	22	27
Clear Creek	5	13	19
Saint Vrain	3	6	11
South Platte	7	11	17

*1963-1977 Period

III

WATER SUPPLY

PRECIPITATION

1981

LOCATION	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		6 MO. % OF NORMAL
	PRECIP.	% OF NORMAL	PRECIP.	% OF NORMAL	PRECIP.	% OF NORMAL	PRECIP.	% OF NORMAL	PRECIP.	% OF NORMAL	PRECIP.	% OF NORMAL	
BOULDER	1.16	50	4.47	139	1.75	76	1.97	113	1.20	71			
CHEESMAN	0.32	18	2.01	105	2.18	160	3.36	131	3.66	156	0.86	80	112
CHEYENNE WELLS	0.62	47	4.62	172	0.67	29	3.11	109	5.00	198	0.96	67	114
DENVER AP WSFD	1.01	52	3.76	142	0.63	33	0.90	51	1.16	90	0.35	31	73
ESTES PARK	0.22	13	2.51	117	1.23	60	3.68	161	3.41	177	1.17	98	108
FORT COLLINS	1.12	62	4.21	145	0.37	17	1.98	135	1.50	97	1.22	127	96
FORT MORGAN	1.63	128	3.87	151	2.46	115	2.08	109	1.29	83	0.07	6	110
GREELEY	1.05	71	5.36	222	0.67	37	2.74	204	0.78	74	0.67	69	124
KASSLER	0.72	30	3.55	120	0.84	46	1.81	111	1.13	77	0.58	48	75
LAKWOOD	0.19	10	3.50	138	1.13	61	1.18	73	0.81	66	0.41	37	70
LONGMONT	0.96	62	3.17	125	0.28	15	0.95	79	0.73	71	0.87	89	76
PARKER	0.56	36	4.53	200	1.59	86	3.24	167	0.98	55	0.15	16	107
RED FEATHER LAKE	1.12		2.64		0.50		2.60		4.20		0.62		
STERLING	2.42	185	3.92	137	4.20	149	4.53	183	0.87	54	0.22	20	133
WRAY	2.82	149	3.88	123	0.94	30	2.99	103	3.10	128	0.86	59	97

FLOODS

The following tabulation shows the annual flows in acre feet at the major control gaging stations in the Division and the highest instantaneous peak flow during the period.

Most figures are preliminary reports and subject to revision.

STATION	WATER YEAR (A.F.) 10/1/80 to 9/30/81	INSTANTANEOUS PEAK FLOWS	
		DATE	C.F.S.
South Platte below Cheesman	67,940	9/15/81	402
North Fork at South Platte	159,200	6/29/81	625
South Platte at South Platte	248,100	8/09/81	650
Bear Creek at Morrison	16,740	7/18/81	235
Bear Creek at Sheridan	10,990	6/03/81	383
South Platte at Denver	113,300	5/28/81	1,740
Clear Creek at Lawson	57,190	6/09/81	622
Clear Creek at Derby	15,050	6/03/81	965
South Platte at Henderson	182,700	6/03/81	2,910
Middle Boulder Creek at Orodell	28,000	6/04/81	240
South Boulder Creek at Eldorado	25,520	6/04/81	344
Coal Creek at Plainview	2,360	5/30/81	66
St. Vrain Creek at Lyons	46,650	6/04/81	412
St. Vrain at Platteville	92,010	5/29/81	498
Big Thompson at Canyon (1)	40,440	7/12/81	358
Big Thompson at LaSalle	55,300	5/28/81	450
Cache la Poudre at Canyon	137,600	6/08/81	2,370
Cache la Poudre at Greeley	69,490	6/09/81	1,880
South Platte at Kersey	398,600	6/04/81	3,370
South Platte at Balzac	194,300	6/06/81	2,060
South Platte at Julesburg	236,500	6/08/81	1,800

(1) Does not include 290,400 acre feet diverted via Foothills Canal and Dille Tunnel and returned to the river below station.

WATER SUPPLY

UNDERGROUND WATER

The activity of the Groundwater Section of the State Engineer's Office continues to be hectic. The following tabulation is indicative of the magnitude of this activity:

	<u>APPLICATIONS RECEIVED</u>	<u>PERMITS ISSUED</u>	<u>DENIALS</u>	<u>TOTAL TRANSACTIONS</u>
<u>EXEMPT</u>	3,054	2,398		
<u>NON-EXEMPT</u>	568	91	77	6,188

HYDROGRAPHIC REPORT
DIVISION ONE
1981

GENERAL

The 1981 Water Year was characterized by very low runoff. Predictions from snowpack accumulation on May 1, were that most streams would produce flows near or below the minimum of record. While these predictions have not yet been substantiated, stream flows were generally in the range of 50 percent or less of the previous 14 year averages.

While measurement activity was consequently reduced somewhat increased, emphasis was placed on maintenance and repair. Major projects included repair of stations damaged during the high 1980 runoff, installation of two controls and repair of cableway A-frames at one station.

HYDROGRAPHIC ACTIVITY

The following measurements were made by Division One Hydrographers during the Irrigation Water Year (November 1, 1980 to October 31, 1981):

<u>HYDROGRAPHER</u>	<u>NUMBER OF MONTHS</u>	<u>NUMBER OF MEASUREMENTS</u>
Appelgren, P. S.	1	0
Bell, T. S.	12	180
Coffer, H. R.	12	157
Cooper, R. E.	12	264
Hall, J. R.	3	66
Lockhead, J. W.	12	301
McDanold, J. C.	12	178
Schildt, W. I.	9	263
Wittler, R. J.	4	0
		<u>TOTAL 1,409</u>

Total hydrographic mileage was 95,713. Significant contribution to the hydrographic effort was made by the two summer employees who made some of the above measurements. Measurements or mileage by Glen Brees or Bud Walcher in Division One are not included above.

SUPPLEMENTAL HYDROGRAPHIC REPORTS

ANNUAL REPORT
COLORADO-BIG THOMPSON PROJECT
1981

The Colorado-Big Thompson Project is a cooperative effort between the U. S. Bureau of Reclamation, the Northern Colorado Water Conservancy District and the Division of Water Resources. Water is diverted from the Western Slope through Alva B. Tunnel. Power is generated in a series of five power plants by the Bureau, then the water is distributed to East Slope users by the Conservancy District.

ACTIVE PROJECT STORAGE

<u>Western Slope</u>	<u>November 1, 1980</u>	<u>November 1, 1981</u>	<u>Difference</u>
Green Mountain	101,010	84,610	- 16,400
Willow Creek	8,250	8,540	+ 290
Granby	395,240	248,280	-146,960
Shadow Mountain	<u>16,930</u>	<u>17,390</u>	+ 460
Grand Lake			
Total Acre Feet	521,430	358,820	-162,610
<u>Eastern Slope</u>			
Mary's Estes, Pinewood, Flatiron	4,740	5,150	+ 410
Carter	54,570	28,440	- 26,130
Horsetooth	64,880	43,770	- 21,110
Boulder	<u>0</u>	<u>2,450</u>	+ 2,450
Total Acre Feet	124,190	79,810	- 44,380

Total active storage (total reservoir storage less dead storage was 438,630 acre feet on November 1, 1981. This compares with 645,620 acre feet on November 1, 1980 and with 909,431 acre feet total active project storage capacity.

DISTRIBUTION OF PROJECT WATER

<u>WATER DISTRICT</u>	<u>CARRIER</u>	<u>TOTAL ACRE FEET</u>
1	Hansen Feeder Canal via Big Thompson	11,610
3	Hansen Supply Canal via Cache La Poudre Direct Delivery	107,010 13,900
4	Hansen Feeder Canal via Big Thompson St. Vrain Supply via Little Thompson Direct Delivery	53,630 12,610 12,170
5	St. Vrain Supply Canal via St. Vrain Direct Delivery	32,620 18,460
6	Boulder Creek Supply Canal via Boulder Creek Direct Delivery	21,180 <u>6,840</u>
	Total to all District, Including Replacement	290,030

Water Declared Available

Quota - 100 percent or 310,000
 Relacement - 3,520

TOTAL 313,520

MATERIAL BALANCE-PROJECT WATER DISTRIBUTION

ESTES PARK AREA

<u>INFLOW</u>	<u>NOV. 1, 1980-NOV. 1, 1981</u>	<u>TOTAL ACRE FEET</u>
<u>WESTERN SLOPE WATER</u>		
Alva B. Adams Tunnel	252,600	
<u>EASTERN SLOPE WATER</u>		
Wind River	210	
Big Thompson River	55,750	
Fish Creek	380	
Storage November 1, 1980	2,690	311,630

<u>OUTFLOW</u>	<u>NOV. 1, 1980-NOV. 1, 1981</u>	<u>TOTAL ACRE FEET</u>
Estes Park Water District	310	
Town of Estes Park	250	
Estes-Foothills Canal	285,300	
Big Thompson River	29,360	
Storage November 1, 1981	<u>3,090</u>	318,310

Apparent Gain 6,680 acre feet

CARTER LAKE AREA

INFLOW

Estes-Foothills Canal	285,300	
Storage Pinewood, Flatiron November 1, 1980	2,040	
Storage Carter November 1, 1980	54,570	
Dille Tunnel	<u>5,110</u>	347,020

OUTFLOW

Hansen Feeder Canal	113,420	
Big Thompson River	93,470	
St. Vrain Supply Canal	91,440	
Direct Diversion	4,740	
Storage Carter November 1, 1981	28,440	
Storage Pinewood, Flatiron, November 1, 1981	<u>2,060</u>	333,570

Apparent Loss 13,450 acre feet

HORSETOOTH AREA

INFLOW

Hansen Feeder Canal	106,860	
Storage November 1, 1980	<u>64,880</u>	171,740

OUTFLOW

Hansen Supply Canal	107,540	
Direct Delivery	13,380	
Storage November 1, 1981	<u>43,770</u>	164,690

Apparent Loss 7,050 acre feet

BOULDER AREA

<u>INFLOW</u>	<u>NOV. 1, 1980-NOV. 1, 1981</u>	<u>TOTAL ACRE FEET</u>
Boulder Feeder Canal	32,510	
Storage November 1, 1980	<u>0</u>	32,510

OUTFLOW

Boulder Creek Supply Canal	27,620	
Dry Creek Replacement	580	
Storage November 1, 1981	<u>2,460</u>	30,660

Apparent Loss 1,850 acre feet

SUMMATIONS

Estes Park Area	+ 6,680	
Carter Lake Area	-13,450	
Horsetooth Area	- 7,050	
Boulder Area	<u>- 1,850</u>	15,670

Total Apparent Project Loss

OPERATION SKIM

In conjunction with the Colorado-Big Thompson Project, Operation Skim diverts Big Thompson River water for power generation purposes and returns it to the river. Upper Big Thompson River water is diverted through Estes Foothills Canal into Olympus Tunnel for power generation at Polehill and Flatiron Power Plants. Near the mouth of Big Thompson Canyon, river water is diverted through Dille Tunnel. River water from both diversions is then returned to the river through the Big Thompson Power Plant. Skim operations for the 1981 irrigation water year were as follows:

<u>MONTH</u>	<u>WATER DIVERTED ACRE-FEET</u>
November	1,030
December	0
January	0
February	0
March	0
April	630
May	4,840
June	15,750
July	6,680
August	1,700
September	610
October	<u>0</u>
	<u>TOTAL 31,240</u>

Harold R. Coffey
Senior Water Resource Engineer

III. WATER SUPPLY

TRANSMOUNTAIN DIVERSIONS

OCTOBER 1, 1980 - SEPTEMBER 30, 1981

DIVERTING STRUCTURE	SOURCE	SOURCE DISTRICT	RECEIVING DISTRICT	CONTROLLING OWNERSHIP	1ST. DAY		LAST DAY		NO. OF DAYS		AVG. AMT		TOTAL	
					WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED	WATER DIVERTED
Wilson Supply Ditch	Sand & Deadman Creek	48	3	Divide Canal & Res. Co.	4-24-81	7-21-81	89	12.9	89	12.9	2,276	16,010	2,276	
*Deadman Ditch (Incl. in Wilson supply)	Deadman Creek	48	3	Divide Canal & Res. Co.	4-29-81	7-20-81	83	5.68	83	5.68	936	1,280	936	
Bob Creek Ditch	Nunn Creek	48	3	City of Greeley	--	--	--	--	--	--	0	1,100	0	
Columbine Ditch	Deadman Creek	48	3	City of Greeley	--	--	--	--	--	--	0	13,720	0	
Laramie Poudre Tunnel	Laramie River	48	3	Water Supply & Storage	10-01-80	9-30-81	188	42.9	188	42.9	16,010	1,280	16,010	
Skyline Ditch	West Fork Laramie River	48	3	Water Supply & Storage	4-30-80	6-10-81	42	15.4	42	15.4	1,280	1,280	1,280	
Cameron Pass Ditch	Michigan River	47	3	Water Supply & Storage	6-01-81	6-29-81	29	2.14	29	2.14	123	1,100	123	
Michigan Ditch	Michigan River	47	3	North Poudre Irr. Co.	5-28-81	9-30-81	111	4.98	111	4.98	1,100	1,100	1,100	
Grand River Ditch	Colorado River	51	3	City of Ft. Collins	4-28-81	9-03-81	129	53.6	129	53.6	13,720	13,720	13,720	
Eureka	Colorado River	51	4	City of Loveland	--	--	--	--	--	--	0	252,600	0	
Alva B. Adams Tunnel	Colorado River	51	4	U.S.B.R. - N.C.C.D	10-01-80	9-30-81	353	361	353	361	252,600	53,910	252,600	
Moffat Tunnel	Fraser River	51	6	City of Denver	10-01-80	9-30-81	365	74.5	365	74.5	53,910	53,910	53,910	
Jones Pass Tunnel	Williams Fork	51	6	City of Denver	11-09-80	9-30-81	272	18.4	272	18.4	9,920	9,920	9,920	
AKA August P. Gumlich or Williams Fork Tunnel	(Inc. in Moffat Tunnel)													
Berthoud Pass Ditch	Fraser River	51	7	Farmers Res. & Highline	5-30-81	8-18-81	81	2.74	81	2.74	441	441	441	
Vidler Tunnel	Montezuma Creek	36	7	Herbert Young	--	--	--	--	--	--	880	880	880	
Roberts Tunnel	Blue River	36	23-8	City of Denver	10-01-80	9-10-81	298	186	298	186	110,200	110,200	110,200	
Boreas Pass Ditch	Indiana Creek	36	23	City of Aurora	--	--	--	--	--	--	0	0	0	
Hoosier Pass Ditch	Blue River	36	23	City of Colo. Springs	4-28-81	9-07-81	122	22.8	122	22.8	5,510	5,510	5,510	
Aurora Homestake	Homestake Creek	37	23	City of Aurora	10-01-80	9-30-81	215	29.1	215	29.1	12,390	12,390	12,390	

* INCLUDED IN WILSON SUPPLY DITCH

RESERVOIR STORAGE DISTRICT NO. 1

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Empire	South Platte	8,205	31,728	6,892
Riverside	South Platte	35,337	58,449	22,387
Jackson	South Platte	14,600	33,767	18,527
Bijou No. 2	South Platte	1,850	2,000	225
North Sterling	South Platte	23,380		9,510
Prewitt	South Platte	14,680		14,180
Klug	Boxelder Creek	0	0	0
Bootleg	Boxelder Creek	0	0	0
Heart	Little Crow Creek	0	0	0
Giffin No. 1	Lone Tree Creek	10	15	13
Giffin No. 2	Lone Tree Creek	1	5	0
Adams & Bunker No. 1	Little Crow Creek	0	242	80
Adams & Bunder No. 2	Little Crow Creek	0	70	2
	<u>TOTAL</u>	98,063	126,276	71,803

RESERVOIR STORAGE DISTRICT NO. 2

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Barr	South Platte	15,243	28,393	888
Horsecreek	South Platte	3,295	14,945	603
Prospect	South Platte	1,195	5,838	2,260
Lord	South Platte	0	584	0
Milton	South Platte	12,479	19,731	6,432
Lower Latham	South Platte	4,372	5,777	4,513
Standley	Clear Creek	29,969	34,797	26,752
Behrns	South Platte	25	34	40
Beulah	South Platte	54	70	45
Bowles No. 1	South Platte	5	2	8
Bowles No. 2	South Platte	50	25	30
Brantner No. 2	Brantner Gulch	11	11	3
Carlin	South Platte	20	15	0
Church Lower Lake	Dry Creek	108	100	80
Coal Ridge	Little Dry Creek	426	319	187
Fulton Waste	South Platte	125	400	450
German No. 2	Big Dry Creek	36	92	92
German No. 3	Big Dry Creek	2	3	5
German No. 4	Big Dry Creek	36	36	36
German No. 6	Big Dry Creek	8	23	20
German No. 8	Big Dry Creek	40	50	50
German No. 9	Big Dry Creek	9	16	15
German No. 12	Big Dry Creek	92	92	92
H.A. Smith	South Platte	30	40	50
Great Western	Clear Creek	2,845	1,688	2,317
Henry	South Platte	15	2	30
J.B. Smith	Todd Creek	120	150	120
Irland No. 1	South Platte	4	5	0
Irland No. 5	South Platte	30	300	4
La Dore	Seepage	367	370	367
Loloff	South Platte	145	145	110
Marshall	Brantner Gulch	30	30	30
Maul	First Creek	1	15	0
Meek No. 1	South Platte	35	20	25
Meek No. 2	South Platte	12	1	12
Mose Davis No. 2	South Platte	2	75	15
North Star	Big Dry Creek	125	120	120
Olds	South Platte	0	0	0
Parson-Holms	Second Creek	0	0	0
Thompson	Big Dry Creek	205	225	200

RESERVOIR STORAGE DISTRICT NO. 2 (continued)

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Matson	Big Dry Creek	10	5	12
Karsh	Big Dry Creek	0	0	5
Hamilton	Seepage	1	1	1
Francis	Gulch	5	6	6
Brunner	Seepage	26	53	20
Burnett-Deisher	Seepage	17	15	20
	<u>TOTAL</u>	71,625	114,619	46,065

RESERVOIR STORAGE DISTRICT NO. 3

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Fossil Creek	Cache La Poudre	1,905	7,241	0
Halligan	N FK Cache La Poudre	6,428	6,428	791
Clarks Lake	N FK Cache La Poudre	726	190	307
Indian Creek	N FK Cache La Poudre	1,354	1,906	1,460
N. Poudre No. 2	N FK Cache La Poudre	1,736	2,731	0
N. Poudre No. 3	N FK Cache La Poudre	1,597	2,867	2,533
N. Poudre No. 4	N FK Cache La Poudre	819	1,168	522
N. Poudre No. 5	Cache La Poudre	0	0	4,743
N. Poudre No. 6	Cache La Poudre	3,189	3,852	2,128
N. Poudre No. 15	N FK Cache La Poudre	3,894	3,574	3,522
Park Creek	N FK Cache La Poudre	0	6,242	3,636
N. Poudre Minor	N FK Cahce La Poudre	936	202	83
Cobb	Cache La Poudre	11,700	12,210	7,950
Douglas	Cache La Poudre	8,120	8,473	7,393
Res. No. 8	Cache La Poudre	7,510	7,342	7,546
Res. No. 8 Annex	Cache La Poudre	2,627	2,505	2,642
Windsor Res.	Cache La Poudre	3,970	15,249	4,607
Chambers	Wright, Trap & Fall	1,278	3,212	1,014
Long Draw	Long Draw	6,271	6,885	5,420
Black Hollow	Cache La Poudre	3,337	3,337	4,376
Curtis	Cache La Poudre	695	618	684
Kluser	Cache La Poudre	735	751	810
Lindenmeier	Cache La Poudre	306	226	266
Long Pond	Cache La Poudre	2,575	2,949	2,682
Richards	Cache La Poudre	466	513	677
Rocky Ridge	Cache La Poudre	3,323	3,403	3,303
W S & S No. 3	Cache La Poudre	3,802	3,808	3,723
W S & S No. 4	Cache La Poudre	479	697	812
Terry Lake	Cache La Poudre	3,733	5,367	4,847
Worster Res.	Sheep Creek	149	793	87
Timnath Res.	Cache La Poudre	4,568	8,959	5,284
Windsor Lake	Cache La Poudre	844	840	892
Barnes Meadow	Barnes Meadow	2,458	670	2,458
Big Beaver	Big Beaver Creek	0	0	0
Comanche	Big Beaver Creek	0	0	0
Peterson	Unnamed Creek	0	0	0
Seaman	N FK Cache La Poudre	2,374	3,862	2,231
Twin Lake	Trib. of Pennock	0	0	0
Claymore	Cache La Poudre	514	715	653
Dowdy	Pine Creek	889	853	784
Joe Wright	Joe Wright Creek	5,606	6,115	6,439
Eaton Law Res.	Cache La Poudre	0	0	103

RESERVOIR STORAGE DISTRICT NO. 3 (continued)

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Gray Lakes	Boxelder Creek	306	210	17
Panhandle Creek	Panhandle Creek	1,011	1,011	1,011
Portner	Fossil Creek	430	379	274
Seeley	Cache La Poudre	1,064	1,203	502
Warren Lake	Cache La Poudre	859	759	1,776
Woods Lake	Cache La Poudre	1,304	2,004	1,230
Horsetooth	Co. Big Thompson	69,105	128,315	51,927
	<u>TOTAL</u>	171,022	270,134	154,145

RESERVOIR STORAGE DISTRICT NO. 4

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Boulder & Larimer	Little Thompson	2,588	2,425	1,357
Boyd Lake	Big Thompson	29,629	36,056	21,116
Carter	Co. Big Thompson	57,729	108,591	31,745
Cemetary Lake	Big Thompson	340	317	350
Donath	Big Thompson	512	1,134	368
Fairport	Big Thompson	171	151	68
Geo. Rist (Buckingham)	Big Thompson	300	231	78
Hertha Res.	Dry Creek	753	1,386	497
Horseshoe Res.	Big Thompson	0	4,469	6,161
Lake Loveland	Big Thompson	12,736	12,248	12,106
Lawn Lake	Roaring Fork	0	0	0
Lon Hagler	Big Thompson	4,912	4,854	4,893
Lone Tree Res.	Big Thompson	2,067	8,721	4,000
Loveland Lake	Big Thompson	530	1,531	539
Mariano	Big Thompson	4,917	5,611	1,850
Oklahoma	Big Thompson	312	282	227
Rist Benson Res.	Big Thompson	335	262	346
Ryan Gulch Res.	Ryan Gulch	486	673	467
South Side Res.	Big Thompson	359	454	318
Welch	Big Thompson	5,749	5,281	5,199
	<u>TOTAL</u>	124,425	194,677	91,685

RESERVOIR STORAGE DISTRICT NO. 5

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Beaver Lake	Beaver Creek	1,211	1,135	20
Foothills	St. Vrain	859	867	2,520
Highland No. 1	St. Vrain	824	814	873
Highland No. 2	St. Vrain	3,024	3,390	2,519
Highland No. 3	St. Vrain	1,095	1,084	897
McIntosh	St. Vrain	2,080	1,981	2,031
Pleasant Valley	St. Vrain	2,062	2,608	2,003
Oligarchy No. 1	St. Vrain	1,621	1,718	1,239
Union	St. Vrain	7,357	12,126	6,438
Left Hand Park	Left Hand	1,013	995	1,269
Left Hand Valley	Left Hand	2,773	3,635	471
Button Rock	N. St. Vrain	13,045	10,121	12,603
	<u>TOTAL</u>	36,967	40,474	32,883

RESERVOIR STORAGE DISTRICT NO. 6

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Marshall	South Boulder Creek	4,221	5,807	2,834
Great Western	Clear & Coal Creeks	2,661	1,736	2,328
Baseline	S&M Boulder Creek	2,930	3,629	2,816
McKay	South Boulder Creek	456	413	371
Albion	Albion Creek	1,111	1,111	1,111
Barker	M. Boulder Creek	6,985	3,060	8,711
Boulder	Big Thompson Pro.	3,400	4,040	3,758
Goose Lake	N. Boulder Creek	1,036	319	945
Cross	S&M Boulder Creek	25,540	20,997	30,281
Hillcrest	S&M Boulder Creek	1,684	1,718	1,985
Leggett	S&M Boulder Creek	1,212	1,237	1,435
Valmont	S&M Boulder Creek	6,210	6,293	6,919
Six Mile	Middle Boulder Creek	552	1,367	631
Silver	N. Boulder Creek	3,628	208	3,730
Panama No. 1	Middle Boulder Creek	3,944	4,265	2,196
	<u>TOTAL</u>	65,570	56,200	70,051

RESERVOIR STORAGE DISTRICT NO. 7

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Maple Grove	South Clear Creek	583	439	583
Ralston	Moffat via Gross	6,713	6,952	8,275
Tucker	Ralston	218	311	254
Long Lake	Ralston Creek	1,273	1,466	96
Standley	Clear Creek	29,654	34,800	510
	<u>TOTAL</u>	38,441	43,968	9,718

RESERVOIR STORAGE DISTRICT NO. 8

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Aurora Rampart	South Platte	10,375	871	978
Chatfield	South Platte	26,039	26,590	18,754
Cherry Creek	Cherry Creek	12,283	12,623	11,604
Marston	South Platte	12,567	14,361	14,699
McLellen	South Platte	4,636	4,250	3,870
Platte Canyon	South Platte	428	910	927
	<u>TOTAL</u>	66,328	59,605	50,832

RESERVOIR STORAGE DISTRICT NO. 9

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Soda No. 1 (West)	Bear Creek	0	241	96
Soda No. 2 (East)	Bear Creek	993	1,507	461
Kendrick	Bear Creek	220	205	265
Patrick	Bear Creek	694	1,019	847
Deane	Turkey Creek	150	150	34
Bergen No. 1 (East)	Turkey Creek	354	354	384
Bergen No. 2 (West)	Turkey Creek	415	490	567
Ward	Bear Creek	600	700	600
Henry Lake	Bear Creek	160	161	130
Harriman	Bear Creek	385	545	550
Bowles	Bear Creek	1,080	2,000	1,760
Johnston	Bear Creek	222	783	222
Tule No. 1 (Upper)	South Platte	30	84	84
Tule No. 2 (Lower)	South Platte	90	90	90
Grant A (West)	Bear Creek	0	0	0
Grant B (South)	Bear Creek	155	129	129
Grant C (East)	Bear Creek	60	60	75
Kingfisher Lake	Turkey Creek	20	50	15
Willow Sp. No. 1	Turkey Creek	40	30	55
	<u>TOTAL</u>	5,668	8,598	6,364

RESERVOIR STORAGE DISTRICT NO. 23

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Antero	S. FK South Platte	15,937	15,838	12,901
Eleven Mile	S FK South Platte	96,588	97,458	94,654
Jefferson	Jefferson Lake	321	416	Ice
Montgomery	Md FK South Platte and Hoosier Tunnel	3,204	1,391	3,723
	<u>TOTAL</u>	116,050	115,103	11,278

RESERVOIR STORAGE DISTRICT NO. 64

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Julesburg Res.	South Platte	18,547	24,143	13,733
North Sterling	South Platte	23,380	71,160	10,560
Prewitt	South Platte	14,680	28,360	14,180
	<u>TOTAL</u>	56,607	123,663	38,473

RESERVOIR STORAGE DISTRICT NO. 80

NAME	SOURCE	AMOUNT - A.F.		
		10-31-80	4-30-81	10-31-81
Altura	South Platte	47	88	0
Cheeseman	South Platte	69,000	69,968	61,927
Lininger	South Platte	673	693	673
Wellington	South Platte	2,783	3,276	1,484
	<u>TOTAL</u>	72,506	74,025	64,084

1979 FINAL

COUNTY	PORTION OF COUNTY IN DIVISION 1	POTATOES			CORN FOR SILAGE			HAY		
		ACRES	YIELD cwt/aces	PRODUCTION CWT X 1000	ACRES	YIELD TONS/ACRE	PRODUCTION TONS X 1000	ACRES	YIELD TONS/ACRE	PRODUCTION TONS X 1000
ADAMS					4,900	18.0	8.8	25,000	3.2	80.0
ARAPAHOE					1,000	13.5	13.5	5,900	2.0	11.7
BOULDER					4,000	19.0	75.0	21,000	3.35	70.7
CHEYENNE	39				702	12.5	8.8	5,658	1.65	9.3
CLEAR CREEK										
DENVER										
DOUGLAS					300	13.5	4.0	11,500	1.75	20.3
ELBERT	69				690	15.0	10.4	22,080	1.45	32.0
GILPIN										
JEFFERSON					100	20.0	2.0	5,600	2.20	12.3
KIT CARSON					10,500	17.0	177.0	23,800	2.60	62.0
LARIMER					20,000	21.5	433.0	39,500	2.60	103.0
LINCOLN	26.5				292	16.5	4.8	8,056	1.20	9.7
LOGAN					16,300	20.0	329.0	55,000	2.85	157.0
MORGAN					19,500	20.0	394.0	38,500	3.10	119.0
PARK	87.4			847				15,819	0.75	11.9
PHILLIPS					2,000	16.5	33.0	12,100	2.65	32.0
SEDGWICK					5,500	22.5	125.0	8,900	2.60	23.0
TELLER	47.5							1,995	1.85	3.7
WASHINGTON					2,000	17.5	34.5	35,000	2.25	79.0
WELD				892	94,600	21.5	2,050.0	129,500	3.10	399.0
YUMA					9,400	16.5	154.0	33,000	2.90	96.0
TOTALS		6,400	285	1,734	191,784	17.7	3,856.8	497,908	2.32	1,331.6

SPRING WHEAT 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		500	100	40	4.0	300	20.0	6.0		
ARAPAHOE		500				400	20.0	8.0		
BOULDER		800	100	70	7.0	400	29.0	11.6		
CHEYENNE	39									
CLEAR CREEK										
DENVER										
DOUGLAS										
ELBERT	69	69				69	20.0	1.4		
GILPIN										
JEFFERSON										
KIT CARSON		300				100	20.0	2.0		
LARIMER		500	100	62.0	6.2	200	32.0	6.4		
LINCOLN	26.5									
LOGAN		300				300	29.0	8.7		
MORGAN		400				200	26.0	5.2		
PARK	87.4									
PHILLIPS		600				500	23.0	11.5		
SEDGWICK										
TELLER	47.5									
WASHINGTON		500				400	21.5	8.5		
WELD		1,500	400	59.5	23.8	800	31.5	25.1		
YUMA										
TOTALS		5,969	700	57.9	41.0	3,669	24.7	94.4		

OATS 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		1,900	400	62.5	25.0	500	33.0	16.5		
ARAPAHOE		200				100	33.0	3.3		
BOULDER		1,300	600	63.5	38.0	300	60.0	18.0		
CHEYENNE	39									
CLEAR CREEK										
DENVER										
DOUGLAS		300				200	26.0	5.2		
ELBERT	69	1,173				552	27.0	14.9		
GILPIN										
JEFFERSON		200				200	40.0	8.0		
KIT CARSON		1,000	300	56.5	17.0	400	32.5	13.0		
LARIMER		1,300	600	52.5	31.5	200	50.0	10.0		
LINCOLN	26.5									
LOGAN		7,700	1,400	67.0	93.5	1,300	49.0	63.5		
MORGAN		2,500	600	63.5	38.0	300	46.5	14.0		
PARK	87.4	262.2	87.4	59.0	5.2	175	42.5	7.4		
PHILLIPS		4,000	300	56.5	17.0	3,100	37.0	114.0		
SEDGWICK		6,000	200	60.0	12.0	1,300	60.5	78.5		
TELLER	47.5	95				47.5	42.0	2.0		
WASHINGTON		7,300	1,300	56.0	73.0	700	27.0	19.0		
WELD		14,000	2,100	63.5	133.0	2,900	38.5	112.0		
YUMA		1,200	200	55.0	11.0	300	45.0	13.5		
TOTALS		50,430	8,087	59.6	494.2	12,474	40.6	512.8		

SUGAR BEETS

COUNTY	1979 FINAL					1980 PRELIMINARY			
	PORTION OF COUNTY IN DIVISION I PERCENT	ACRES	YIELD TONS/ACRE	PRODUCTION X 1000	ACRES	YIELD TONS/ACRE	PRODUCTION X 1000		
ADAMS		950	18.2	17.1	1,410	17.4	24.5		
ARAPAHOE		1,380	17.1	23.6	1,500	15.8	23.7		
BOULDER									
CHEYENNE	39	183	18.9	3.5	230	14.4	3.3		
CLEAR CREEK									
DENVER									
DOUGLAS									
ELBERT	69								
GILPIN									
JEFFERSON									
KIT CARSON		5,040	17.4	87.6	6,900	12.2	84.4		
LARIMER		5,230	18.3	95.7	5,550	19.4	107.5		
LINCOLN	26.5								
LOGAN		5,840	17.1	99.8	7,650	19.4	148.5		
MORGAN		6,610	18.3	121.0	11,200	20.1	225.0		
PARK	87.4								
PHILLIPS		5,350	19.6	104.6	6,050	17.5	106.0		
SEDGWICK		2,690	19.2	51.6	2,500	20.9	52.3		
TELLER	47.5								
WASHINGTON		2,580	17.2	44.4	3,030	18.2	55.0		
WELD		33,150	19.2	637.9	37,200	20.5	763.0		
YUMA		3,710	17.7	65.8	7,420	17.6	130.6		
TOTALS		72,713	18.2	1,352.6	90,640	17.8	1,723.8		

DRY BEANS 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	IRRIGATED					NON IRRIGATED				
		ACRES PLANTED	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT	ACRES HARVESTED	YIELD LBS/ACRE	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT	
ADAMS		600	600	1,600	9,600						
ARAPAHOE		1,000	1,000	1,800	18,000						
BOULDER											
CHEYENNE	39										
CLEAR CREEK											
DENVER											
DOUGLAS		500				500	300		1,500		
ELBERT	69	276				207	300		621		
GILPIN											
JEFFERSON											
KIT CARSON		7,100	6,500	1,490	97,000						
LARIMER		3,800	3,700	1,860	69,000						
LINCOLN	26.5	106	27	1,400	371	80	300		239		
LOGAN		5,000	4,600	1,980	91,000	200	300		600		
MORGAN		10,100	9,500	1,790	170,000	500	300		1,500		
PARK	87.4										
PHILLIPS		8,400	7,700	1,870	144,000	300	300		900		
SEDGWICK		5,100	4,900	1,920	94,000	100	300		300		
TELLER	47.5										
WASHINGTON		2,200	2,000	1,900	38,000						
WELD		20,000	19,300	1,910	368,000	200	300		600		
YUMA		8,600	8,100	1,860	151,000						
TOTALS		72,782	67,927	1,782	1,210,459	2,087	300		6,261		

DRY BEANS 1980
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	IRRIGATED				NON IRRIGATED			
		ACRES PLANTED	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT	
ADAMS		1,600	1,600	1,590	25,500				
ARAPAHOE									
BOULDER		900	900	1,830	16,500				
CHEYENNE	39								
CLEAR CREEK									
DENVER									
DOUGLAS		500	500			500	360	1,800	
ELBERT	69	345	345			276	350	966	
GILPIN									
JEFFERSON									
KIT CARSON		10,500	9,000	1,710	154,000	1,000	410	10,000	
LARIMER		4,800	4,800	2,010	96,500				
LINCOLN	26.5	212				212	350	742	
LOGAN		7,200	6,500	1,650	107,000	600	330	2,000	
MORGAN		15,200	14,000	1,710	240,000	1,000	320	3,200	
PARK	87.4								
PHILLIPS		13,100	11,500	1,870	215,000	1,500	350	5,300	
SEDGWICK		5,400	4,800	2,080	100,000	400	330	1,300	
TELLER	47.5								
WASHINGTON		2,600	2,400	1,850	44,500	200	400	800	
WELD		23,500	21,000	1,920	404,000	2,000	330	6,500	
YUMA		17,600	16,500	1,820	300,000	1,000	410	4,100	
TOTALS		103,457	93,000	1,822	1,694,000	8,688	358	31,103	

SORGHUM FOR GRAIN 1980
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		900	100	55.0	5.5	200	25.0	5.0		
ARAPAHOE		4,000								
BOULDER		300				100	25.0	2.5		
CHEYENNE	39	8,775	390	58.0	22.6	3,198	30.0	108.0		
CLEAR CREEK										
DENVER										
DOUGLAS		300								
ELBERT	69	2,070	69	55.0	3.8					
GILPIN										
JEFFERSON										
KIT CARSON		21,000	5,500	58.0	319.0	4,000	29.0	115.0		
LARIMER		100								
LINCOLN	26.5	5,300	451	55.5	25.0	1,564	16.0	25.0		
LOGAN		4,800	900	43.5	39.0	1,200	26.0	31.0		
MORGAN		1,700	400	45.0	18.0	800	29.5	23.5		
PARK	87.4									
PHILLIPS		8,800	400	65.0	26.0	2,700	30.0	81.0		
SEDGWICK		2,900	600	45.0	27.0	600	29.0	17.5		
TELLER	47.5									
WASHINGTON		10,500	200	60.0	12.0	800	20.0	16.0		
WELD		3,200	100	40.0	4.0	300	31.5	9.5		
YUMA		31,500	7,500	63.0	474.0	15,500	34.5	537.0		
TOTALS		106,145	16,610	53.6	890.3	30,962	27.1	839.1		

BARLEY 1980
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		13,500	6,900	61.5	423.0	6,100	32.0	194.0		
ARAPAHOE		2,600	100	48.0	4.8	1,900	24.0	45.5		
BOULDER		7,500	5,600	55.0	308.0	1,400	32.0	45.0		
CHEYENNE	39	312	78	53.5	4,173	117	20.0	2.34		
CLEAR CREEK										
DENVER										
DOUGLAS		900	100	58.8	5.8	700	25.0	17.5		
ELBERT	69	2,415	69	55.0	3.8	1,656	30.0	49.7		
GILPIN										
JEFFERSON		500	200	70.0	14.0	200	25.0	5.0		
KIT CARSON		6,700	3,800	52.5	200.0	1,500	19.5	29.5		
LARIMER		11,500	9,000	59.0	529.0	2,000	18.5	36.5		
LINCOLN	26.5	371	26.5	55.0	1.5	239	20.0	4.8		
LOGAN		1,700	800	58.0	46.5	800	25.0	20.0		
MORGAN		3,200	2,500	71.0	177.0	500	15.0	7.5		
PARK	87.4									
PHILLIPS		800	200	43.0	8,600	500	28.0	14.0		
SEDGWICK		2,100	400	59.0	23.5	1,600	22.0	35.0		
TELLER	47.5									
WASHINGTON		2,800	800	69.0	55.0	1,400	26.5	37.0		
WELD		41,500	28,000	62.5	1,746	11,000	22.0	242.0		
YUMA		3,600	2,400	51.5	124.0	600	26.0	15.5		
TOTALS		101,998	60,974	57.8	3,510.4	32,212	24.1	776.3		

WINTER WHEAT 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		197,000	3,800	46.0	174.0	148,200	28.5	4,220		
ARAPAHOE		83,000	1,300	47.5	61.5	73,700	22.5	1,665		
BOULDER		4,700	200	46.5	9.3	4,200	23.0	96.5		
CHEYENNE	39	75,270	2,262	57.5	130.1	56,238	17.5	984.2		
CLEAR CREEK										
DENVER										
DOUGLAS		4,500	500	44.5	22.2	2,900	25.0	73		
ELBERT	69	57,000	207	53.5	11.1	48,438	30.0	1,453		
GILPIN										
JEFFERSON		2,300	100	45.0	4.5	2,000	26.0	51.5		
KIT CARSON		319,000	22,500	51.0	1,142.0	247,500	25.0	6,196		
LARIMER		15,500	200	43.5	8.7	12,300	26.5	323		
LINCOLN	26.5	42,400	265	40.5	10.7	31,535	23.0	725.3		
LOGAN		183,000	2,900	55.0	159.0	130,100	29.0	3,912		
MORGAN		66,000	4,500	46.5	210.0	55,500	34.0	1,878		
PARK	87.4									
PHILLIPS		143,000	600	52.5	31.6	99,400	30.5	3,026		
SEDGWICK		79,500	1,600	43.0	68.5	68,400	33.0	2,244		
TELLER	47.5									
WASHINGTON		389,000	4,000	49.5	197.0	296,000	29.5	8,716		
WELD		214,000	2,500	51.0	128.0	175,500	31.5	5,497		
YUMA		186,000	4,100	52.0	214.0	147,900	30.0	4,427		
TOTALS		2,061,170	51,534	48.5	2,499.4	1,599,811	27.3	43,674.8		

WINTER WHEAT 1980
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHEL X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHEL X 1000		
ADAMS		189,000	4,700	46.5	218.6	180,300	34.5	6,236		
ARAPAHOE		86,000	2,100	49.0	102.9	78,400	26.0	2,030		
BOULDER		6,800	100	60.0	6.0	6,600	35.0	231		
CHEYENNE	39	88,530	3,432	45.5	156.2	78,858	29.5	2,326		
CLEAR CREEK										
DENVER										
DOUGLAS		4,800	500	47.0	23.5	3,900	25.5	99.5		
ELBERT	69	56,580	690	38.0	26.2	50,370	26.5	1,335		
GILPIN										
JEFFERSON		2,900	100	58.0	5.8	2,700	35.0	94.5		
KIT CARPSON		354,000	32,000	46.5	1,488	303,000	31.0	9,365		
LARIMER		15,800	200	61.0	12.2	14,800	36.0	530		
LINCOLN	26.5	51,410	530	45.0	23.9	49,290	30.0	1,479		
LOGAN		205,000	3,700	58.0	214.6	196,300	32.5	6,406		
MORGAN		75,500	7,500	56.5	423.8	67,000	35.0	2,331		
PARK	87.4									
PHILLIPS		164,000	3,000	57.0	171.0	156,000	39.0	6,053		
SEDGWICK		89,000	2,400	56.5	135.6	85,600	40.5	3,477		
TELLER	47.5									
WASHINGTON		473,000	12,000	54.0	648.0	448,000	32.5	14,471		
WELD		240,000	4,000	59.5	238.0	229,000	33.0	7,591		
YUMA		199,000	5,900	51.5	303.9	189,100	35.5	6,723		
TOTALS		2,301,320	82,852	52.3	4,333.2	2,139,218	32.8	70,166.4		

CORN FOR GRAIN 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	IRRIGATED					NON IRRIGATED				
		ACRES PLANTED	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000			
ADAMS		15,600	10,500	135.5	1,423.0						
ARAPAHOE		1,500	500	120.0	60.0						
BOULDER		10,300	5,800	116.0	672.0						
CHEYENNE	39	6,903	5,304	113.5	1,545.0	741	25.0	18.5			
CLEAR CREEK											
DENVER											
DOUGLAS		300									
ELBERT	69	690									
GILPIN											
JEFFERSON		300	200	115.0	23.0						
KIT CARSON		72,000	58,500	131.5	7,697.0	500	38.0	19.0			
LARIMER		33,200	12,500	118.5	1,479.0	500	40.0	20.0			
LINCOLN	26.5	609.5	26.5	95.0	2.5	26.5	20.0	0.53			
LOGAN		57,000	39,000	118.0	4,595.0	1,000	46.0	46.0			
MORGAN		91,500	70,000	129.5	9,066.0						
PARK	87.4										
PHILLIPS		75,500	67,500	144.5	9,756.0	5,500	56.0	308.0			
SEDGWICK		36,700	28,500	141.0	4,012.0	2,500	58.0	145.0			
TELLER	47.5										
WASHINGTON		36,000	33,000	123.5	4,079.0	500	31.0	15.5			
WELD		216,000	119,000	125.0	14,883.0	1,000	49.0	49.0			
YUMA		217,000	202,000	130.5	26,383.0	4,000	38.0	152.0			
TOTALS		871,103	652,331	123.8	80,758.6	16,268	40.1	652.347			

CORN FOR GRAIN 1980
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	IRRIGATED				NON IRRIGATED			
		ACRES PLANTED	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	
ADAMS		15,200	11,000	117.0	1,287				
ARAPAHOE									
BOULDER		11,600	4,900	120.0	588.0				
CHEYENNE	39	5,070	4,290	105.5	452.6	390	15.0	5.9	
CLEAR CREEK									
DENVER									
DOUGLAS		400							
ELBERT	69	759	138	100.0	13.8	207	20.0	4.1	
GILPIN									
JEFFERSON		100	100	120.0	12.0				
KIT CARSON		74,000	57,000	101.0	5,745	500	20.0	10.0	
LARIMER		31,000	13,500	98.0	1,323	500	34.0	17.0	
LINCOLN	26.5	583				53	20.0	1.1	
LOGAN		48,500	33,000	118.5	3,907	2,000	30.0	60.0	
MORGAN		83,000	71,500	121.0	8,656				
PARK	87.4								
PHILLIPS		81,000	68,000	140.0	9,520	10,000	33.0	330.0	
SEDGWICK		41,800	33,000	120.5	3,984	2,500	32.0	80.0	
TELLER	47.5								
WASHINGTON		33,000	31,000	134.0	4,157				
WELD		188,000	123,000	113.5	13,943	2,000	30.0	60.0	
YUMA		207,000	196,000	138.0	27,068	3,000	34.0	102	
TOTALS		821,012	646,428	117.6	76,019.9	21,150	26.8	566.8	

BARLEY 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		22,500	6,500	71.4	461.5	15,500	33.0	511.5		
ARAPAHOE		2,800	200	65.0	13.0			49.5		
BOULDER		7,300	5,400	74.5	402.3	1,600	32.0	51.5		
CHEYENNE	39	585	234	64.0	14.9	195	24.0	4.7		
CLEAR CREEK										
DENVER										
DOUGLAS		900	200	72.5	14.5	600	29.0	17.5		
ELBERT	69	1,794	138	57.5	7.9	1,587	26.5	42.1		
GILPIN										
JEFFERSON		700	200	65.0	13.0	300	23.5	7.1		
KIT CARSON		6,200	2,600	81.0	210.6	2,400	25.0	60.0		
LARIMER		13,000	10,800	78.0	842.4	1,700	20.0	34.0		
LINCOLN	26.5	477	26.5	63.0	1.7	344.5	27.5	9.5		
LOGAN		6,100	900	73.5	66.2	3,600	18.5	66.6		
MORGAN		5,300	3,300	79.5	262.4	1,200	19.0	22.8		
PARK	87.4									
PHILLIPS		2,200	200	70.0	14.0	1,900	37.5	71.3		
SEDGWICK		2,600	400	75.0	30.0	1,600	21.5	34.4		
TELLER	47.5									
WASHINGTON		9,500	2,900	83.0	240.7	4,800	19.5	93.6		
WELD		47,000	30,000	81.0	2,423	14,000	31.5	441.0		
YUMA		3,400	2,200	77.0	169.4	700	30.5	21.4		
TOTALS		132,356	66,199	72.4	4,792.8	54,327	25.9	1,407.1		

SORGHUM FOR GRAIN 1979
FINAL

COUNTY	PORTION OF COUNTY IN DIVISION I	ACRES PLANTED	IRRIGATED				NON IRRIGATED			
			ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000		
ADAMS		1,100	100	55	5.5	200	25	5.0		
ARAPAHOE		3,000								
BOULDER		600				100	25	2.5		
CHEYENNE	39	7,800	312	55	17.16	3,003	33	99.45		
CLEAR CREEK										
DENVER										
DOUGLAS		300								
ELBERT	69	2,967	69	55	3.795					
GILPIN										
JEFFERSON										
KIT CARSON		17,500	2,200	62.5	138.0	4,600	24.5	112.0		
LARIMER		100								
LINCOLN	26.5	7,818	477	54.0	25.705	2,306	21.0	48.426		
LOGAN		4,300	800	45.0	36.0	1,000	26.5	26.5		
MORGAN		2,600	400	45.0	18.0	1,100	30.0	33.0		
PARK	87.4									
PHILLIPS		12,000	400	60.0	24.0	5,400	34.5	185.0		
SEDGWICK		2,400	600	46.0	27.5	400	30.0	12.0		
TELLER	47.5									
WASHINGTON		14,300	200	55.0	11.0	1,100	22.5	24.5		
WELD		4,500	200	42.5	8.5	400	32.5	13.0		
YUMA		28,500	4,500	53.0	238.0	13,500	26.5	358.0		
TOTALS		109,785	10,258	52.3	536.5	33,109	27.6	913.8		

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 diversions 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 197 day period from April 1 to October 15, 1981 the mean daily flow dropped below 120 cfs on 107 days. The daily flow for the 197 days averaged 247 cfs.

The following tabulation summarized the monthly South Platte River flows at the Julesburg Gage:

<u>PERIOD</u>	<u>TOTAL FLOW FOR PERIOD AC. FT.</u>	<u>DAILY MAX. FLOW CFS</u>	<u>DAILY MIN. FLOW CFS</u>	<u>AVERAGE DAILY FLOW CFS</u>	<u>DAYS LESS THAN 120 CFS</u>
(1)	(2)	(3)	(4)	(5)	(6)
April	23,440	606	184	394	0
May	22,150	763	131	360	0
June	41,150	1,790	41	692	9
July	2,590	171	19	42.1	29
August	2,700	98	19	43.8	31
September	1,350	31	14	22.7	30
October 1-14 incl.	2,980	38	161	107	8

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 1980 water year, the last year for which official figures are available, was as follows:

<u>STREAM</u>	<u>CONSUMPTION</u>	<u>PERCENT OF ALLOCATION</u>
North Fork of Republican River	8,550	85.5
South Fork of Republican River	10,350	40.7
Arikaree River	4,060	26.1
Beaver Creek	630	19.1
	<u>23,590 AF</u>	63.6 Percent

LARAMIE RIVER COMPACT

The 1957 decree of the United State 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 of 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 1981 the transmountain diversions under the Laramie River Compact totaled 18,230 acre feet of the 19,875 acre feet compact allowance. The meadowland diversions totaled 24,290 acre feet or some 82% of the allotment. Total Colorado diversions were 42,520 acre feet or 86 percent of the total allotment of 49,375 acre feet.

Stipulations and Litigation

Nineteen Injunctive Complaints were heard by Judge Behrman October 29, 1981. These included twelve complaints of operating wells without augmentation, four complaints of expanded usage, one complaint of wasting water, one complaint of water theft, and one complaint of violation of a household use only permit. Eleven of the complaints resulted in stipulations that the infractions would not be repeated and eight were set for hearing on the merits.

Judge Behrman has issued a Memorandum of Decision in several cases before him:

- 1) Northglenn was denied the use of their share of the Lower Creek Ditch and the Reithman Ditch in their application for approval of plan for augmentation including exchange. Early contracts entered into by Northglenn's predecessor (Knowles) contained language that limited use of the lower Clear Creek Ditch water to certain lands. The court determined this limitation applied to Northglenn and use of the water could not be moved. The Reithman Ditch Decree entered August 14, 1918 gave a priority date of June 2, 1862 but limited use of the water to a specified 195 acres and when no longer used on that land, the Decree became void. Northglenn asked the court to exercise its power to grant a change of water right but the court refused. The objectors asserted that the same sort of restrictions existed as far as the Old Brantner Ditch was concerned. The court determined this was not true and indicated a change could be made with this water right.
- 2) Riverside Irrigation District was denied three wells as alternate points of diversion for their May 31, 1907 ditch priority. The court determined that the three wells would increase the water supply beyond that historically provided by the ditch by reducing ditch losses (long, leaky ditch) and would supplement the ditch when the full priority was not physically available at the headgate.
- 3) Estes Park was denied the use of the return flows from their contract rights of imported, Colorado-Big Thompson water for augmentation credit. The court determined that the terms of the contract between the United States of America and the town provided water for domestic use within the town but reserved the right of reuse for the Northern Colorado Water Conservancy District. In addition, the court determined that the town had failed to claim the return flows until this application, while the NCWCD had continually claimed rights to all Colorado-Big Thompson return flows. The court also determined that the contract provisions for domestic use did not allow Estes Park the first use of Colorado-Big Thompson water for augmentation purposes.
- 4) Gayno, Inc. had seven applications for exempt commercial wells that were denied. Seven domestic permits were issued to seven individuals in April, 1972. The wells were drilled but never were put to use even though Statements of Beneficial Use were apparently filed in 1972 and 1973. The court determined that Gayno, Inc. had always intended the large scale coordinated commercial development of a shopping center including a restaurant, supermarket, office

building, a 200 room motel, etc. It also became apparent the applicants knew seven individuals requesting domestic permits would receive less attention than one entity filing seven commercial permit applications. And that seven commercial permits would probably not be granted. The court determined the applicants had not submitted permit applications from which the State Engineer might reasonably conclude the intended use. This appeared to be an attempt to avoid the requirements of 37-92-302(2). The court also determined they could not receive a conditional decree for domestic use because no appropriation for such use had ever been initiated.

5) The court determined that Mountain Water and Sanitation District could not receive a date of appropriation based on the staking of additional well sites if further development of the district was contingent on whether the development would prove to be practical and feasible. Apparently the additional wells were not seriously considered until the property owned by Geneva Basin Ski Corporation was included in the district, providing the assurance of economic feasibility. It was at this point that a supplemental application was filed relying on the earlier staking of well sites as the necessary first step in the appropriation.

6) The 146 Company was denied in their request to get credit for return flows from their share of imported waters carried by the Water Supply and Storage Company. The applicant was seeking credit through an accounting procedure for all underground and surface flows from the irrigation of its properties. Apparently there were no changes in irrigation methods or plans for recapturing the return flows contemplated by the applicant. The court determined the only change actually being sought was to allow four irrigation wells to operate without regard to the priority system since there would actually be no new waters introduced to the system.

Supreme Court Litigation

The Supreme Court has issued a couple of decisions which appear to give some additional guidance in water law.

State of Colorado V. Vickroy

Vickroy desired a well as a new point of diversion for his ditch right which was within a designated ground water basin. Vickroy applied to Water Court for this change and was opposed by the Groundwater Management District who challenged the jurisdiction of the Water Court. The Supreme Court reaffirmed the previous ruling in Larrick V. District Court, 177 Colo. 237, that the proponent of the proposition that certain groundwater within the designated groundwater basin has the burden of proving the proposition. The Supreme Court also considered the County District Court the proper forum to determine whether the groundwater was designated or not. If the County District Court determined the ground water was not designated, then presumably the applicant could pursue the matter in Water Court. Otherwise the County District Court and the Groundwater Commission appear to have jurisdiction.

Broyles V. Fort Lyon Canal Company

Applicant Broyles had four replacement wells, each of which had been awarded an absolute and conditional water right decree. The applicant attempted to use diversions from the replaced wells as a basis for securing a decree that the conditional water rights be made absolute. The applicant had not sought a decree to establish the old wells as alternate points for the replacement wells. The Supreme Court determined that use of the replaced wells as alternate points, without an appropriate decree to perfect the conditional decree, would frustrate the protections afforded by the statutory scheme. The lower court denial was upheld.

DAMS

RESERVOIRS-PLANS AND SPECIFICATIONS

The following list includes the dams for which plans and specifications have been approved this year.

<u>Name</u>	<u>Water District</u>	<u>Type</u>
Morrison Raw Water Reservoir	9	New
West Jefferson Reservoir	9	New
Floodwater Retaining Dam 55-3	64	New
Windsor Reservoir No. 8	3	New Spillway
Mountain Supply No. 18	3	Renovation
Lone Tree Reservoir	4	Outlet Modification
Boulder Reservoir	6	Outlet Modification
Barr Lake	2	Toe Drains

DAMS

RESERVOIRS - INSPECTIONS

The following number of dams were inspected by the Field Engineering Unit of the Dam Safety Branch:

	<u>Hazard Classification</u>		
	<u>High Hazard</u>	<u>Moderate Hazard</u>	<u>Low Hazard</u>
Regular Division One Inspections (includes one restriction)	53	38	33
Construction (includes 9 final inspections)	82	19	7

Additionally several dams were inspected by district water commissioners.

The following Phase I Inspections were made of high hazard dams under the National Dam Safety Program:

<u>Dam Name</u>	<u>Owner</u>	<u>District</u>	<u>Height Feet</u>	<u>Capacity Acre Feet</u>
Great Western	City of Broomfield	2	70	3,253
Niver Creek Detention Pond	City of Thornton	2	42	580
Elder	Windsor Res. and Canal	3	25	2,296
Williams/McCreery	GASP	1	50	17,616
Holly	Urban Drainage and Flood Control	8	40	230
Patrick	Bowles Reservoir Company	8	10	1,284
Blunn	City of Arvada	7	72	5,800
Bergen East No. 2	Bergen Ditch and Reservoir Company	9	40	587
Panhandle	Crystal Lakes Development Company	3	47	2,349
Beaver Park	Highland Ditch Company	5	33	2,161

- continued -

<u>Dam Name</u>	<u>Owner</u>	<u>District</u>	<u>Height Feet</u>	<u>Capacity Acre Feet</u>
Silver Lake	City of Boulder	6	71	3,987
Waneka	Waneka Reservoir Company	6	30	710
Boyd Lake	Greeley-Loveland Irrigation Company	4	12	100
Clover Basin	Clover Basin Ditch Company	5	34	596

LIVESTOCK WATER TANKS - EROSION CONTROL DAMS

The total number of livestock water tanks and erosion control dams approved between November 1, 1980 and October 31, 1981 are presented below in tabular form:

<u>DISTRICT</u>	<u>NO. OF LIVESTOCK TANKS</u>	<u>TOTAL CAPACITY (AF)</u>	<u>NO. OF EROSION CONTROL DAMS</u>	<u>TOTAL CAPACITY (AF)</u>
1	8	42.4 AF	1	10
2				
3				
4				
5				
6				
7	1	9		
8	3	7.5		
9				
23				
48				
64				
65	2	10.8		
79				
80				
<hr/>				
<u>TOTAL</u>	14	69.7	1	10

WATER RIGHTS

Under the provisions of Section 37-92-402, 1973 CRS, the Water Rights Tabulation was to have been updated and revised as deemed necessary by the Division Engineer for filing with the Clerk of the Water Court by July 1, 1981. Many hours were spent in the completion of this project prior to the deadline.

House Bill 1504, which amended parts of 37-92-402, was approved by the General Assembly, was signed by Governor Lamm, and became effective July 1, 1981. This Amendment revised the date the Tabulation was to go to the Clerk of the Water Court from July 1, 1981 to July 1, 1983. Also revised was the end of the protest period from January 1, 1982 to July 1, 1984 and the start of hearings by the Water Judge from the September term-day of 1982 to the September term-day of 1984.

Under these new deadlines, objections are still being received and reviewed. The new deadlines will also allow additional new Decrees to be entered into the Tabulation.

WATER RIGHTS

WATER DIVISION NO. ONE - CASES FILED

<u>MONTH</u>	<u>NEW APPLICATIONS</u>	<u>STRUCTURES</u>
November	27	44
December	124	487
January	31	91
February	34	50
March	45	102
April	36	403
May	20	31
June	42	81
July	36	114
August	36	109
September	30	79
October	<u>27</u>	<u>46</u>
<u>Yearly Totals</u>	488	1,637

Note:

Quadrennial applications are included with all other applications under the new numbering system. Statistics are no longer kept for the various types of application.

WATER RIGHTS

WATER DIVISION NO. ONE - CASES DECREED

<u>MONTH</u>	<u>JUDGEMENTS</u>	<u>NUMBER OF STRUCTURES</u>	<u>DISMISSALS</u>	<u>NUMBER OF STRUCTURES</u>
November	13	30	3	8
December	19	79	2	2
January	38	129	6	11
February	1	28	1	2
March	93	227	15	21
April	2	9	1	6
May	65	105	6	8
June	100	297	2	3
July	2	2	3	14
August	34	472	7	14
September	30	107	10	26
October	<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>
<u>Yearly Totals</u>	399	1,487	56	115

CONSERVANCY DISTRICTS

Central Colorado Water
Conservancy District

Greg Llafet
Manager

2308-29th St. Suite 2
Greeley 80631
330-4540

Lower South Platte Water
Conservancy District

Gary Freihauf
Secretary-Treas.

P. O. Box 1725
Sterling 80751
522-1378

Northern Colorado Water
Conservancy District

Earl F. Phipps
Manager

P. O. Box 679
Loveland 80537
667-2437

St. Vrain & Left Hand
Water Conservancy District

Verna Sigg
Secretary

1735 North Main
Longmont 80501
772-4060

Upper South Platte Water
Conservancy District

Albert Wahl
President

Jefferson 80456
836-2205

MANAGEMENT DISTRICTS

NORTHERN HIGH PLAINS

Arikaree Ground Water Management District

c/o Roger Brenner (Thomas J. Callahan, Attorney)
Box 52, Kirk, Colorado 80824 P. O. Box 191
(home) 362-4370 (school 358-4288) Wray, Colorado 80758

Central Yuma Ground Water Management District

c/o Ben Saunders, Manager (854-3294 home) Wray-Tuesday
P. O. Box 311 (332-4155 office) Wednesday &
Wray, Colorado 80758 Friday

East Cheyenne Ground Water Management District

c/o Norman Arends, Manager
P. O. Box 606
Cheyenne Wells, Colorado 80810 (767-5318)

Frenchman Ground Water Management District

c/o Ben Saunders, Manager (854-3484 home) Holyoke on
P. O. Box 113 Monday & Thursday
Holyoke, Colorado 80734

Plains Ground Water Management District

c/o Clifford Hawthorne, Manager
1453 Martin Avenue
Burlington, Colorado 80807 (346-8487)

Sand Hills Ground Water Management District

c/o Ben Saunders, Manager
P. O. Box 311
Wray, Colorado 80758

W - Y Ground Water Management District

c/o Fred Wurtsmith, Manager
220 South Main
P. O. Box 121
Yuma, Colorado 80759 (848-5333)

Marks Butte Ground Water Management District

c/o Ben Saunders, Manager
P. O. Box 113
Holyoke, Colorado 80734 (854-3484)

Upper Black Squirrel Creek Management District

c/o Wayne Cunningham, Secretary
3580 North Curtis Road
Peyton, Colorado 80831

OTHER MANAGEMENT DISTRICTS

Lost Creek Ground Water Management District

c/o George Bush
P. O. Box 299
Keenesburg, Colorado 80643
732-4541

North Kiowa-Bijou Ground Water Management District

Loyd Musgrave
Hoyt, Colorado 80641

Upper Big Sandy Ground Water Management District

c/o Don E. Smith
Ramah, Colorado 80832

Upper Black Squirrel Ground Water Management District

Wayne Cunningham, Secretary
3580 North Curtis Road
Peyton, Colorado 80831

WATER USER ORGANIZATIONS

District

1	Irrigationists	John Samples Secretary	104 West Beaver Fort Morgan 80701
2	Consolidated Ditches	W. W. Gaunt Secretary	25 South 4th Avenue Brighton 80601
3	Cache La Poudre Water Users	Harlan Seaworth President	11801 North Cnty. Rd. 9 Wellington 80549
4	Big Thompson Water Users	Elmer Stroh Secretary	23344 WCR 21 3/4 Milliken 80453
6	District & Water Users	Milt Nelson President	2040 Longs Peak Avenue Longmont 80501
64	District 64 Protection	Alex Michels Secretary	205 1/2 Main Street Sterling 80751

WATER DISTRICT NO. 1DITCH AND RESERVOIR COMPANIES

A. A. Smith Irrigating Canal Reservoir, Milling and Pipeline Company	Gene Peterson President	Snyder 80750 847-3452
Associated Ditches	Jake Kosman Chairman	Fort Morgan 80701 867-7066
Beaver Ditch Company	Charles Henry President	Brush 80723 842-4714
Bijou Irrigation Company	John Samples Secretary	104 West Beaver Fort Morgan 80701 867-2222
Bijou Irrigation District	John Samples Secretary	104 West Beaver Fort Morgan 80701 867-2222
Corona Ditch Company	Jack Orr Owner	Masters 80547 645-2207
Duel and Snyder	E. L. Caneva President	Route 1 Fort Morgan 80701 867-7947
Fort Morgan Canal Company	Lindy Crumley Superintendent	111 E. Railroad Ave. Fort Morgan 80701 867-8166
Gill & Stevens Ditch Company	Harold Hansen President	Route 1 Brush 80723 842-2918
Hillrose Irrigation District	Roy Boyles Secretary	Hillrose 80733 847-3431
Hoover Ditch Company	Mrs. Pat Peterson Secretary	Kersey 80644
Illinois Ditch Company	William Farr President	Kersey 80644 356-3277
Jackson Lake Reservoir Company	Lindy Crumley Superintendent	111 E. Railroad Ave. Fort Morgan 80701 867-8166
Johnson & Edwards Company	William Tramp President	Hillrose 80733 847-3492
Kiowa-Bijou Groundwater Basin	Donald F. McClary Attorney	231 Main Street Fort Morgan 80701 867-5621
Lower Platte & Beaver Irr. Co.	Roy Boyles Secretary	Hillrose 80733 847-3431
Morgan, Prewitt Reservoir Co.	John Samples Secretary	104 West Beaver Fort Morgan 80701 867-2222
North Sterling Irrigation	Alex Michel Superintendent	Footte Building Sterling 80751 522-2025
Putman Ditch Company	Paul Ansley President	Masters 80547 645-2235

WATER DISTRICT NO. 1 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Riverside Irrigation Company</u>	Cecil Osborne Superintendent	Box 455 Fort Morgan 80701 867-6586
<u>Riverside Irrigation District</u>	Cecil Osborne Superintendent	Box 455 Fort Morgan 80701 867-6586
<u>Snyder Ditch & Reservoir Company</u>	Bart Woodward President	Snyder 80750 842-2935
<u>Tetsel Ditch Company</u>	William Warner Superintendent	Merino 80741 522-7507
<u>Tremont Ditch Company</u>	Leon Lake Secretary	Snyder 80750 842-2184
<u>Trowell Ditch Company</u>	Willis Elson President	Hillrose 80733 847-3373
<u>Upper Platte & Beaver Canal Company</u>	Phil Mortensen President	Brush 80723 842-2016
<u>Union Ditch Company</u>	B. B. Peterson President	Snyder 80750 847-3752
<u>Weldon Valley Ditch Company</u>	Maurice Jones President	Weldona 80653 645-2367

WATER DISTRICT NO. 2DITCH AND RESERVOIR COMPANIES

Big Dry Creek Ditch & Reservoir Decree	Barry Marrs Secretary	2528 WCR 19 Fort Lupton 80621 80 South 27th Ave.
Burlington Ditch & Reservoir Land Company	Adolph Bohlender President	Brighton 80601 659-7373 11553 WCR 6
Brighton Ditch Company	George Sieber President	Fort Lupton 80621 659-2143 8822 WCR 23
Coal Ridge Ditch Company	George Gerhardt President	Fort Lupton 80621 857-2040 Centennial Center
Delta Ditch Company	Norman Carlson President	915-10th, Greeley 356-4000
Denver Water Board	William H. Miller Secretary	1600 West 12th Ave. Denver 80254 17787 WCR 25
Farmers Independent Ditch Co.	John Briggs Secretary	Platteville 80651 737-2186 80 South 27th Ave.
Farmers Reservoir & Irrigation Company	Adolph Bohlender President	Brighton 80601 659-7373 (Office) 284-5431 (Home) 25 South 4th Ave.
Fulton Ditch Company	W. W. Gaunt Secretary	Brighton 80601 659-3171 6820 York Street
Gardeners Ditch Company	Sylvester DiGacomo President	Denver 80221 288-3369 Route 2, Box 183
German Ditch Company	Casper Sack President	Brighton 80601 452-8122 Route 2, Box 82
Godfrey Ditch Company	Jerome Loeffler President	LaSalle 80645 284-6430 Box 141
Henrylyn Irrigation District	Lawrence Gerkin Manager	Hudson 80642 536-4702 25387 WCR 58
Highland Ditch Company	Mrs. George Jurgens President	Greeley 80631 352-9343 405-1st
Lower Latham Ditch Company	Victor R. Klein President	Kersey 80644 352-5727 9000 WCR 24
Lupton Bottom Ditch Company	Roy Miller President	Platteville 80651 785-2315 2308-29th, Suite 2
McCanne Ditch & Reservoir Co.	Everett Kissler President	Greeley 80631 330-4540

WATER DISTRICT NO. 2 (continued)

DITCH AND RESERVOIR COMPANIES

Meadow Island No. 1 Irrigation Company	William Mayer Secretary	14922 WCR 19 Platteville 80651 785-2356
Meadow Island Irrigation Co.	Ruben Gustafson President	10910 WCR 28 Fort Lupton 80621 785-2397
New Brantner Ditch Company	W. W. Gaunt Secretary	25 South 4th Avenue Brighton 80601 659-3171
North Star Reservoir Company	G. R. Norden President	4062 WCR 27 Fort Lupton 80621 857-4276
Platte Valley Irrigation Co.	Delbert Shable President	19000 WCR 44 Platteville 80651 284-5486
Platteville Irrigation & Milling Company	John Kunzman Secretary	10952 U. S. 85 Fort Lupton 80621 857-2135
Slate Ditch Company	George Gerhardt President	8822 WCR 23 Fort Lupton 80621 857-2040
Union Ditch Company	Mrs. Frances Hill Secretary	P. O. Box 276 LaSalle 80645 284-5522
Walter & Roberts Ditch Company	Roy Lunvall President	1008-9th Greeley 80631 352-8730
Western Mutual Ditch Company	Edward Fritzler President	20730 WCR 31 LaSalle 80645 737-2256
Wellington Reservoir Company	Ron Heitman President	18860 WCR 31 Platteville 80651 737-2254
Yoxall Ditch Company	Jack DeBell Superintendent	10701 Melody Drive Suite 313 Northglenn 80234 451-8326

WATER DISTRICT NO. 3

DITCH AND RESERVOIR COMPANIES

<u>Arthur Irrigation Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>B. H. Eaton Ditch Company</u>	<u>Wayne Miller-Pres.</u> <u>Louise Kane-Secy.</u>	<u>Kodak-P.O. Box 98</u> <u>Windsor 80550</u> <u>686-7611</u>
<u>Boxelder Ditch Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>Boyd Irrigation Company</u>	<u>Rodger Houtchens</u> <u>Secretary</u>	<u>1007 9th Avenue</u> <u>Greeley, 80631</u> <u>353-9195</u>
<u>Cache La Poudre Irrigation Co.</u>	<u>Greg Jesson</u> <u>Secretary</u>	<u>Route 3, Box 772</u> <u>Fort Collins 80521</u> <u>482-7635</u>
<u>Crystal Lakes</u>	<u>Don Weixelman</u>	<u>P. O. Box 2167</u> <u>3200 East Mulberry</u> <u>Fort Collins 80521</u> <u>482-1847</u>
<u>Divide Canal & Reservoir Co.</u>	<u>Don E. Engel</u> <u>Secretary</u>	<u>106 Elm, Box 206</u> <u>Eaton 80615</u> <u>454-3377</u>
<u>Dixon Canyon Ditch & Reservoir Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>City of Greeley</u>	<u>Bill Hargett</u>	<u>Civic Center Complex</u> <u>Greeley 80631</u> <u>353-6123, Ext. 307</u> <u>1301 9th Street</u> <u>Greeley 80631</u> <u>356-1133</u>
<u>Greeley Irrigation Company</u>	<u>Edgar Bartels</u> <u>Secretary</u>	<u>P. O. Box 1584</u> <u>2319 East Mulberry</u> <u>Fort Collins 80521</u> <u>482-3433</u>
<u>Jackson Ditch Company</u>	<u>Vivienne Woodward</u> <u>Secretary</u>	<u>P. O. Box 220</u> <u>Windsor 80550</u> <u>686-2363</u>
<u>Kern Reservoir & Ditch Company</u>	<u>C. W. Kirby</u> <u>President</u>	<u>1020 Patton</u> <u>Fort Collins 80524</u> <u>493-4726</u>
<u>Kitchell Reservoir Company</u>	<u>Alice Fisher</u> <u>Secretary</u>	<u>P. O. Box 204</u> <u>Fort Collins 80521</u> <u>686-2971</u> <u>482-1632</u>
<u>Lake Canal Company and Lake Canal Reservoir Company</u>	<u>Mrs. Wm. McMurry</u> <u>Secretary</u>	<u>or</u>
<u>Larimer County Canal No. 2 Irrigation Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>Larimer & Weld Irrigation Co.</u>	<u>Don E. Engel</u> <u>Secretary</u>	<u>106 Elm, Box 206</u> <u>Eaton 80615</u> <u>454-3377</u>

WATER DISTRICT NO. 3 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Larimer & Weld Reservoir Co.</u>	<u>Don E. Engel</u> <u>Secretary</u>	<u>106 Elm, Box 206</u> <u>Eaton 80615</u> <u>454-3377</u>
<u>Mail Creek Ditch Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>New Cache La Poudre Irr. Co.</u>	<u>Jim Muroya</u> <u>Secretary</u>	<u>708 8th St., Box 31</u> <u>Greeley 80631</u> <u>352-0222</u>
<u>New Mercer Ditch Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>North Poudre Irrigation Co.</u>	<u>Ben Dumler</u> <u>Superintendent</u>	<u>North Poudre Irr.</u> <u>Office, Box 4</u> <u>Wellington 80549</u> <u>568-3612</u>
<u>No. 10 Ditch Company</u>	<u>Alden Hill</u> <u>Secretary</u>	<u>160 West Mountain Ave.</u> <u>Fort Collins 80521</u> <u>482-3683</u>
<u>Oglivy Land & Irrigation Co.</u>	<u>Shirley Waymen</u> <u>Secretary</u>	<u>1007 9th Avenue</u> <u>Greeley 80631</u> <u>353-9195</u>
<u>Pleasant Valley & Lake Canal</u>	<u>Ward Fischer</u> <u>Secretary</u>	<u>1st Nat'l Bank Bldg.</u> <u>Fort Collins 80521</u> <u>482-1056</u>
<u>Taylor & Gill Canal Company</u>	<u>Mrs. Ronald Uthmann</u> <u>Secretary</u>	<u>484-8942</u>
<u>Tunnel Water Company</u>	<u>Vivienne Woodward</u> <u>Secretary</u>	<u>2319 East Mulberry</u> <u>P. O. Box 1584</u> <u>Fort Collins 80521</u> <u>482-3433</u>
<u>Warren Lake Reservoir Company</u>	<u>William Stover</u> <u>Secretary</u>	<u>P. O. Box 523</u> <u>Fort Collins 80522</u> <u>482-3664</u>
<u>Water Supply & Storage Company</u>	<u>Vivienne Woodward</u> <u>Secretary</u>	<u>2319 East Mulberry</u> <u>P. O. Box 1584</u> <u>Fort Collins 80521</u> <u>482-3433</u>
<u>Whitney Irrigation Company</u>	<u>Robert Tigges-Pres.</u> <u>Katherine Tigges</u> <u>Secretary</u>	<u>Box 1146</u> <u>Windsor 80550</u> <u>686-2836</u>
<u>William Jones</u> <u>Irrigation Company</u>	<u>Charles W. Owen</u> <u>President</u>	<u>11820 WCR 64½</u> <u>Greeley 80631</u> <u>686-2378</u>
<u>Windsor Reservoir & Canal</u>	<u>Don Engel</u> <u>Secretary</u>	<u>106 Elm, Box 206</u> <u>Eaton 80615</u> <u>454-3377</u>

DISTRICT 3 SUPERINTENDENTS

Arthur Irrigation Company	John Meyers	223-1821
B. H. Eaton Ditch Company	Bill Haas	686-2366
Boxelder Ditch Company	Wilbert Trippel	493-4256
Cache La Poudre Irrigation Company (Little Cache)	Greg Jesson	482-7635
Cache La Poudre Irrigation Company (New Cache)	John Lindenberg (Supt.)	352-0222 352-4025
	Dick Rayburn (Windsor Lake)	686-2807
	Phillip Smith (Timnath Res.)	482-0732
Canal Number 3 Ditch Company	A. G. Brenkle	353-6014
Canon Canal	G. D. McGarvey	484-0541
Chaffee Ditch Company	John Meyers	223-1821
Coy Ditch Company	James Hoffman	482-4356
Fort Collins Filters	Ben Alexander (Supt.)	482-2231
	Vern Mobley (Operator)	
	Terry VanCleave (Operator)	
	Fred Jones (Operator)	
Gray Lakes	Mark George	686-2943
Greeley Filters	Verlyn Richardson (Supt.)	482-2446
Jackson Ditch Company	Jeff Harbert	221-2661
William Jones Irrigation Company	Reynold Herbst	352-2293
Lake Canal	Mark George	686-2943
Larimer County Number 2 Ditch Company	Shawn Hoff	484-5828
Larimer and Weld Irrigation Company	John A. Johnson (Supt. Eaton)	454-3377 482-7671
	Vacant (Hdgt.)	482-7701
	Dale Simpson Lake Lee	686-2952

DISTRICT 3 SUPERINTENDENTS (continued)

Larimer and Weld Reservoir Company	Greg Jesson	482-7635
New Mercer Ditch Company	Shawn Hoff	484-5828
North Poudre Irrigation Company	Ben Dumler (Supt.)	568-3612 482-8398
	Vacant (Hdgt.)	493-6108
Ogilvy Ditch Company	Richard Swinney	352-4468
Pleasant Valley and Lake	Don Brewster (Supt.)	482-8645
	Art Wendel (Ditch Rider)	221-0335
Taylor and Gill Ditch Company	Greg Jesson	482-7635
Water Supply and Storage	Jim McFall (Supt.)	482-3433 482-7083
	Jimmy McFall (Hdgt.)	482-3699
	George Yost (Black Hollow Res.)	
Whitney Ditch Company	Bill Haas	686-2366
Windsor Reservoir and Canal	John A. Johnson (Supt.) Eaton	482-7671 454-3377
	Jim Johnson (Hdgt.)	482-3290
	Victor Reynolds (Windsor Res.)	686-2636

DITCH AND RESERVOIR COMPANIES

Arkins Water Association	Mrs. Joy Cross Secretary	P. O. Box 6 Masonville 80541
Bald Mountain Water Association	Charles McAfee Secretary	Route 2, Box 319N Loveland 80537
Beeline Ditch Company	George Kammerzell, Jr. Secretary	22505 Hiway 60 Milliken 80543 587-2038
Big Thompson Manufacturing Ditch Company	Robert Christensen Secretary	P. O. Box 642 Loveland 80537 667-1029
Big Thompson & Platte River Ditch Company	George Kammerzell, Jr. Secretary	22505 Hiway 60 Milliken 80543 587-2038
Blower Ditch Company	Leroy Young Superintendent	Route 1, Box 138 Longmont 80501 772-1664
Boulder & Larimer County Irrigation & Manufacturing (Ish)	L. V. French Secretary	Route 2, Box 23 Berthoud 80513 532-2374
Buckhorn Highline Ditch Company	David Lewis Secretary	Star Route, Box 320 Loveland 80537 667-1544
Buckhorn Water Users Association	Mrs. Orlene Smith Secretary	P. O. Box 98 Masonville 80541 667-5359
Central Weld County Water District	Dale D. Olhausen Secretary	115-18th Street Greeley 80631 352-1284
Consolidated Hillsborough Ditch	Don Davis Secretary	1st Nat'l Bank 2 South Parish Johnstown 80534 587-4661
Consolidated Home Supply Ditch and Reservoir Company	W. R. Keirnes Secretary	Star Route Box 450 Loveland 80537 667-1963
Culver Irrigation Company	Mrs. Loyd Stickelmeyer Secretary	P. O. Box 209 Longmont 80501
Diagonal Water & Sanitation District	Jim Hudson Secretary	1200-28th Street Boulder 80303
Eagle Ditch Company	Mrs. Donald H. Lemon Secretary	Route 2, Box 120 Berthoud 80513 776-1319
Eglin Ditch Company	Wayne Hicks Secretary	Route 2, Box 127 Berthoud 80513 532-2475
Evans Ditch Company	Town Clerk Secretary	3700 Golden Evans 80620 356-5508

WATER DISTRICT NO. 4 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Fairport Reservoir Company</u>	<u>Nellie Verstraten</u> <u>Secretary</u>	<u>Route 1</u> <u>Fort Collins</u>
<u>Farmers Irrigation Ditch</u> <u>and Reservoir Company</u>	<u>F. Ray DeGood</u> <u>Secretary</u>	<u>P. O. Box 657</u> <u>Loveland 80537</u> <u>667-2131</u>
<u>Greeley-Loveland Irrigation Co.</u>	<u>Ron Brinkman</u> <u>Secretary</u>	<u>803-23rd Avenue</u> <u>Greeley, 80631</u>
<u>George Rist Ditch Company</u>	<u>W. R. Keirnes</u> <u>Secretary</u>	<u>Star Route, Box 450</u> <u>Loveland 80537</u> <u>667-1963</u>
<u>Handy Ditch Company</u>	<u>Louis Bein</u> <u>Secretary</u>	<u>Box 460</u> <u>Berthoud 80513</u> <u>532-2676</u>
<u>Hill & Brush Ditch Company</u>	<u>Jim Nelson</u> <u>Secretary</u>	<u>Route 1</u> <u>Milliken 80543</u>
<u>Kershner Ditch Company</u>	<u>David L. Lewis</u> <u>Secretary</u>	<u>Star Route, Box 320</u> <u>Loveland 80537</u> <u>667-1544</u>
<u>Little Thompson Valley Water</u> <u>District</u>	<u>Lovilo Fagan</u> <u>Manager</u>	<u>307 Welch Avenue</u> <u>Berthoud 80513</u> <u>532-2096</u>
<u>Longs Peak Water Users Assoc.</u>	<u>Mrs. Joanne Macy</u> <u>Secretary</u>	<u>P. O. Box 714</u> <u>Longmont 80501</u>
<u>Louden Irrigation Reservoir</u> <u>and Canal Company</u>	<u>Ralph Benson</u>	<u>925 West 33rd</u> <u>Loveland 80537</u> <u>667-2027</u>
<u>Loveland & Greeley Reservoir</u> <u>Company</u>	<u>Ron Brinkman</u> <u>Secretary</u>	<u>808 23rd Avenue</u> <u>Greeley 80631</u> <u>356-0334</u>
<u>Lykins Ditch</u>	<u>Mrs. Tessie DeBuse</u> <u>Secretary</u>	<u>Route 3, Box 211A</u> <u>Longmont 80501</u>
<u>Mariana Water District</u>	<u>Lovilo Fagan</u> <u>Secretary</u>	<u>307 Welch Avenue</u> <u>Berthoud 80513</u> <u>532-2096</u>
<u>Minor Longdon Ditch Company</u>	<u>Mrs. Elmer Rutt</u>	<u>Route 1, Box 3</u> <u>Berthoud 80513</u> <u>587-2238</u>
<u>New Ish Ditch & Reservoir Co.</u>	<u>Horace G. McCarty</u> <u>Secretary</u>	<u>P. O. Box 658</u> <u>Longmont 80501</u>
<u>North Carter Lake Water District</u>	<u>Lovilo Fagan</u> <u>Secretary</u>	<u>307 Welch Avenue</u> <u>Berthoud 80513</u> <u>532-2096</u>
<u>Osborn & Caywood Ditch Company</u>	<u>Donald J. Befus</u> <u>Secretary</u>	<u>716 South County Road 1</u> <u>Berthoud 80513</u> <u>532-2340</u>
<u>Perkins Ditch Company</u>	<u>Arnold Friend</u> <u>Owner</u>	<u>Star Route</u> <u>Loveland 80537</u> <u>667-5662</u>

DITCH AND RESERVOIR COMPANIES

<u>Rist & Benson Reservoir Co.</u>	Ralph Benson Superintendent	925 West 33rd Loveland 80537 667-2027
<u>Rockwell Ditch Company</u>	Max H. Schaal Secretary	Route 1, Box 50 Berthoud 80513 532-2004
<u>Ryan Gulch Reservoir Co.</u>	Lavilo Fagan Secretary	307 Welch Avenue Berthoud 80513 532-2096
<u>Seven Lakes Reservoir Company</u>	Ron Brinkman Secretary	808 23rd Avenue Greeley 80631 356-0334
<u>South Side Irrigation and Reservoir Company</u>	Robert Aussenhus Secretary	203 East 5th Street Loveland 80537 667-6668
<u>Union Ditch</u>	Bill Smith Secretary	P. O. Box 98 Masonville 667-5359
<u>Victory Irrigating Canal Co.</u>	Frank Bacon Secretary	Star Route Loveland 80537 667-4438
<u>Wind Cliff Water Assoc. Inc.</u>	Mrs. Vivien Wylene Buser - Secretary	62 Elmhurst Lane Riverdale Bettendorf, Iowa

DITCH AND RESERVOIR COMPANIES

Allen Lake Reservoir Company	Jesse Parrish Superintendent	2515 Parrish Road Berthoud 80513 772-7678
Baker & Weese	Charles Atkins Superintendent	5623 Hygiene Road Longmont 80501 772-7864
Weese Private	Charles Atkins Superintendent	5623 Hygiene Road Longmont 80501 772-7864
Beckwith	Sam Tanaka Owner	5448 North 115th Longmont 80501 776-3495
Bonus Ditch Company	Sam Tanaka Owner	5448 North 115th Longmont 80501 776-3495
Chapman and McCaslin	Darrell Beck Secretary	12232 North 63rd Longmont 80501 776-5688
Clough Private	Friz Bartley Owner	Route 3 Longmont 80501 776-1437
Clough & True	Charles Ramey Owner	Route 3 Longmont 80501 776-1945
Clover Basin Ditch & Reservoir	Wayne Jurgens Secretary	512 4th Avenue Longmont 80501 776-5122
Cushman	Vernon Golden Secretary	12911 Hillcrest Dr. Longmont 80501 776-5880
Davis & Downing	Gordon Kennedy Secretary	10102 North 75th Longmont 80501 776-1161
Denio & Taylor	John Gaddis Secretary	800 Emery Street Longmont 80501 772-6100
Dickens Private	Lloyd Dickens Owner	136 South Main Longmont 80501 776-0325
Dixon Mill	Great Western Sugar Owner	Route 2 Longmont 80501 776-5070
Goss Pvt. 1 & 2	Charles Atkins Superintendent	5623 Hygiene Road Longmont 80501 772-7864
Hager Meadow	Russell Zweck Owner	11007 North 85th Longmont 80501 776-5198
Hayseed	Louis Rademacher Owner	13184 WCR 13 Longmont 80501 535-4345

WATER DISTRICT NO. 5 (continued)

DITCH AND RESERVOIR COMPANIES

Highland	Larry Sieckmann Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Ide & Starbird Reservoir Co.	George Sittner Superintendent	1148 Aspen St. Longmont 80501 772-4386
Independent Reservoir Company	George Reynolds Owner	2835 Mt. View Ave. Longmont 80501 776-1302
James Ditch Company	Leroy Schlagel Superintendent	9308 North 87th Longmont 80501 776-5339
John Rice	Robert Seewald Superintendent	11306 Quail Road Longmont 80501 776-0744
Last Chance Ditch Company	Harold Nelson Secretary	11955 WCR 15 Longmont 80501 776-2336
Left Hand Ditch Company	Jesse Parrish Superintendent	2515 Parrish Road Berthoud 80513 772-7678
Town of Lyons	Carrol Moores Clerk	Lyons Town Hall Lyons 80540 823-6422
City of Longmont	James Cinea Engineer	City Service Center 100 South Sherman St Longmont 80501 776-6050
Longmont Supply Ditch Company	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Lower Baldwin Ditch Company	Dean Prieskorn Secretary	10115 Plateau Road Longmont 80501 776-2916
Mason Meadow	Vernon Golden Owner	12911 Hillcrest Dr. Longmont 80501 776-2135
Town of Mead	Robert Clark Mayor	Mead 80542 535-4557
Montgomery Pvt.	Public Service Co. Owner	P.O. Box 840 Denver 80201
Nelson	Wayne McGill Secretary	10075 North 75th Longmont 80501 776-9327
Niwot	Robert Seewald Secretary	11306 Quail Road Longmont 80501 776-0744

WATER DISTRICT NO. 5 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Northwest Mutual Life</u>	Robert Haselbush Owner	8197 St. Vrain Rd. Longmont 80501 776-2832
<u>Oligarchy Ditch Company</u>	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
<u>Peck Ditch Company</u>	George Wagner Secretary	8310 Nelson Road Longmont 80501 776-5628
<u>Pella Ditch Company</u>	Jim Tomczak Superintendent	Route 3 Longmont 80501 776-3057
<u>Pleasant Valley Reservoir Co.</u>	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
<u>Rice Ditch Company</u>	Robert Seewald Secretary	11306 Quail Road Longmont 80501 776-0744
<u>Rough & Ready Ditch Company</u>	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
<u>Runyon Ditch Company</u>	Willis Marlatt Owner	11229 North 75th St. Longmont 80501 776-0791
<u>Smead Ditch Company</u>	Warren Bashor Secretary	5475 Hygiene Road Longmont 80501 823-6474
<u>South Flat Ditch Company</u>	David Wagner Secretary	9925 North 95th St. Longmont 80501
<u>South Ledge Ditch Company</u>	Leonard Loukonen Secretary	Route 3 Longmont 80501 823-6268
<u>Palmerton Ditch Company</u>	William Schell Superintendent	802 Bowen Street Longmont 80501 776-3475
<u>Supply Ditch Company</u>	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
<u>Swede Ditch Comapny</u>	Charles Bliss President	5725 St. Vrain Rd. Longmont 80501 776-4865
<u>True & Webster Ditch Company</u>	Edward Darby Secretary	6354 Hygiene Road Longmont 80501 776-2722
<u>Upper Baldwin Ditch Company</u>	Dean Prieskorn Secretary	10115 Plateau Rd. Longmont 80501 776-2916

WATER DISTRICT NO. 5 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Union Ditch & Reservoir Co.</u>	John Sitzman President	25462 Road 43 Greeley 80631 353-0307
<u>Webster & McCaslin Ditch Co.</u>	Rodney Sadar President	P. O. Box 34 Hygiene 80533 776-1435
<u>Weese Private Ditch Company</u>	Charles Atkins Superintendent	5623 Hygiene Rd. Longmont 80501 772-7864
<u>Zweck & Turner Ditch Company</u>	Russell Zweck Secretary	11007 North 85th Longmont 80501 776-5198

DITCH AND RESERVOIR COMPANIES

<u>Andrews & Farewell Ditch Co.</u>	Barry Sinkey Secretary	8280 Valmont Drive Boulder 80301 666-8678
<u>Autrey Eggleston</u>	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
<u>Baseline Land & Reservoir</u>	Carol Nelson Secretary	4465 E. Cnty. Line Rd. Erie 80516 828-3715
<u>Boulder Ditch (Town of Boulder)</u>	City of Boulder Owner	P. O. Box 791 Boulder 80306 441-3240
<u>Boulder & Left Hand Irr. Co.</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
<u>Boulder & Weld County Ditch Company</u>	Ethel Ziegler Secretary	831-17th Longmont 80501 776-2390
<u>Boulder and White Rock Ditch and Reservoir Company</u>	Charles Haley Secretary	401 Main Street Longmont 80501 776-5800
<u>Butte Irrigation & Milling Co.</u>	Gene Sawhill Secretary	6967 Valmont Drive Boulder 80303 443-1858
<u>Carr & Tyler Ditch Company</u>	Art Stromquist Owner	12189 Oxford Road Longmont 80501 776-5832
<u>Church Ditch Company</u>	(Pres.) Marcus Church	Broomfield
<u>City of Lafayette</u>	City Manager	Lafayette 80026 665-9271
<u>City of Louisville</u>	City Manager	Louisville 80027 666-6565
<u>Coal Ridge Ditch</u>	Betty VanBanasterberg Secretary	Route 2, Box 162 Fort Lupton 80621 785-2850
<u>Community Ditch</u>	M. L. Sarchet President	80-South 27th Avenue Brighton 80601 659-7373
<u>Consolidated Lower Boulder Reservoir & Ditch Company</u>	Carol Nelson Secretary	4465 E. County Line Erie 80516 828-3715
<u>Davidson Ditch & Reservoir Co.</u>	Helen Domenico Secretary	10315 Baseline Lafayette 80026 665-5691
<u>Dry Creek Davidson</u>	R. A. Martinson Secretary	3287 North 95th Street Boulder 80303 665-9071
<u>Dry Creek No. 2 Ditch Company</u>	C. D. Beitelshoes Secretary	3395 North 95th Boulder 80303 665-9042

WATER DISTRICT NO. 6 (continued)

DITCH AND RESERVOIR COMPANIES

<u>East Boulder Ditch Company</u>	Robert Mason President	Public Service Company Denver 571-8203
<u>Eggleston No. 1</u>	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
<u>Eggleston No. 2</u>	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
<u>Enterprise Irrigation Ditch Co.</u>	Robert Munson President	7355 Valmont Road Boulder 80301 442-5330
<u>Erie Coal Creek Ditch and Reservoir Company</u>	Dave Oscarson President	Route 1 Erie 80516
<u>Farmers Ditch Company</u>	Rex Mayberry Secretary	3016 Kalmia Boulder 80302 442-4448
<u>Goodhue Ditch & Reservoir Co.</u>	Lois J. Waneka Secretary	11761 East Baseline Lafayette 80026 665-5157
<u>Godding Daily & Plumb Ditch</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
<u>Godding Ditch Company</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
<u>Green Ditch Company</u>	Roger Fell Secretary	P. O. Box 379 Niwt 80544 652-2516
<u>Harden</u>	City of Boulder Owner	Box 791 Boulder 80306 441-3240
<u>Harris</u>	K. Warenburg Owner	Louisville 80027 666-6768
<u>Houck No. 2 Ditch</u>	Milton Nelson Owner	2040 West Longs Peak Longmont 80501 776-1258
<u>Howard Ditch Company</u>	Bill Suittes Secretary	65 Manhattan Drive Boulder 80303 499-5400
<u>Jones & Donnelly Ditch Company</u>	Gene Sawhill Secretary	6967 Valmont Boulder 80301 443-1858
<u>Kerr No. 1 & 2</u>	Mrs. J. D. Mayhoffer Owner	Louisville 80027 666-6180
<u>Kinnear Ditch & Reservoir</u>	M. L. Sarchet President	80 South 27th Avenue Brighton 80601 659-7373

WATER DISTRICT NO. 6 (continued)DITCH AND RESERVOIR COMPANIES

<u>Last Chance Ditch Company</u>	City of Westminster	Westminster 80030 429-1546
<u>Leggett Ditch & Reservoir Co.</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
<u>Leyner-Cottonwood Consolidated</u>	Walter Wise Secretary	838 South Gay Longmont 80501 776-3201
<u>Lower Boulder Ditch Company</u>	Mrs. Carol Nelson Secretary	4465 E. Cnty. Line Rd. Erie 80516 828-3715
<u>Martha M. Mathews</u>	A. F. Bailey Part Owner	11975 Konosha Road Erie 80516 466-1789
<u>Marshall Reservoir</u>	M. L. Sarchet President	80 South 27th Avenue Brighton 80601 659-7373
<u>Marshallville Ditch Company</u>	Gertrude Anderson Secretary	7912 Arapahoe Road Boulder 80303 665-4178
<u>McGinn Ditch Company</u>	Alice Clyncke Secretary	7124 Baseline Road Boulder 80303 494-7198
<u>McKay Reservoir</u>	M. L. Sarchet President	80 South 27th Avenue Brighton 80601 659-7373
<u>N. K. Smith & Tyler Ditch</u>	Max Serafina Owner	1998 WCR 20½ Longmont 80501 776-9222
<u>New Anderson Ditch Company</u>	William Light President	P. O. Box 791 Boulder 80306 441-3240
<u>North Boulder Farmers Ditch Company</u>	John Reich Secretary	P. O. Box 227 Boulder 80306 442-2413
<u>Original Cottonwood No. 2 Ditch</u>	Albert Kolb Secretary	7715 Arapahoe Road Boulder 80303 665-4854
<u>Rural Ditch Company</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
<u>Silver Lake Ditch Company</u>	Everette Long Secretary	3240 Broadway Boulder 80302 442-2353
<u>Schearer Ditch Company</u>	L. W. Van Fleet Owner	3 South Cherryvale Road Boulder 80303 494-7592
<u>Smith & Emmons Ditch Company</u>	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231

WATER DISTRICT NO. 6 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Smith & Goss Ditch Company</u>	City of Boulder Part Owner	P. O. Box 791 Boulder 80306 441-3240
<u>South Boulder Canon Ditch</u>	Harold Eddy President	3151 North 95th Boulder 80303 665-4010
<u>South Boulder & Bear Creek</u>	City Clerk Secretary	201 East Simpson Lafayette 80026 665-9271
<u>South Boulder & Coal Creek Irrigation Ditch Company</u>	Ruth Bowes Secretary	9182 Dillon Road Louisville 80027 666-6698
<u>Tom Delehant Ditch</u>	A. R. Stromquist President	12189 Oxford Road Longmont 80501 776-5832
<u>William C. Hake</u>	Mrs. J. D. Mayhoffer (Owner)	Louisville 80027 666-6180

WATER DISTRICT NO. 7DITCH AND RESERVOIR COMPANIES

Bayou Association of Ditches	Robert Rock President	4360 Tabor Street Wheatridge 80033 422-1316
Boyles	A. T. DeBell	3951 West 56th Way Denver 80002 429-0210
Church (Golden City and Ralston Creek)	City of Northglenn Owner	10701 Melody Drive Room 313 Northglenn 80234 451-3826
Croke Canal	Barbara Fulton Secretary	Farmers Reservoir Irrigation Company 80 South 27th Brighton 659-7373
Colorado Agricultural	Louis Rullo Secretary	11621 Riverdale Road Denver 80233 452-8260
Cort Graves and Hughes	Sam Spano	6640 West 52nd Ave. Arvada 80002 424-3557
Denver View Water Company	Wayne Harkness Secretary	Route 1, Box 590 Golden 80401 424-2190
Farmers Highline	Mrs. Duran Secretary	Farmers Highline Canal & Reservoir 8889 Washington Ave. Denver 80229
Fisher	Henry Johnson Secretary	Box 840 Denver 80202 571-8203
Kershaw	Allan Jones Secretary	7145 Mariposa Denver 80221 429-1881
Lee Stewart & Eskins	J. O. Greenfield President	16173 West 32nd Golden 80401 279-2974
Lower Clear Creek Company (Clear Creek and Platte River Ditch)	Jim Fukaye Secretary	Route 1, Box 027 10680 Riverdale Road Denver 80233 452-8208
Manhart	George Ditolla	6030 Wolff Arvada 80003 429-0139
Ouelette	Joe Romero President	4290 Garrison Wheatridge 80033 424-7888

DITCH AND RESERVOIR COMPANIES

<u>Reno Juchem & Swadley Longan</u>	Mrs. Edna Delva Robert Dextra President	Consolidated Juchem Ditch & Reservoir Co. 6501 West 60th Ave. Arvada 80003 424-4563
<u>Rocky Mountain, Miles and Eskins and South Side</u>	Lyle Bush Secretary	15401 West 44th Ave. Golden 80401 277-5596
<u>United Water Company</u>	Henry J. Johnson Secretary	Box 840 Denver 80202 571-8203
<u>Wannemaker</u>	Lyle Bush Secretary	15401 West 44th Ave. Golden 80401 277-5596
<u>Welch and Agricultural</u>	Dwight Neill Manager	Agricultural Ditch Reservoir Company 10080 West 27th Ave. Denver 80125 238-3606

CLEAR CREEK DITCHES AND SUPERINTENDENTS

Welch	Eugene Cress	922-2815
	Office	238-3606
Church	Jack DeBell	
	Superintendent	451-3826
Agricultural	Nick Vukalich	
	Ditch Rider	279-1211
Coors Industrial	Eugene Cress	922-2815
Farmers Highline	Coors	277-5596
Wannemaker	Bill Baker	422-4658
Lee Stewart Eskins	Coors	277-5596
Croke	J. O. Greenfield	279-2974
Rocky Mountain	Jim Zeigler	424-6636
Reno Juchem	Coors	277-5596
Slough	Robert Dextra	424-4563
South Side	Bob Rock	422-1316
Ouelette	Coors	277-5596
Boyles	Robert Claxton	455-1231
Kershaw	Vincent DeBell	429-0210
Fisher	Allan Jones	429-1881
	Larry Firos	
	Ditch Rider	429-8893
	Van Valkenburg	
Clear Creek & Platte	Public Service	571-8203
	F. Wooley	452-8238
Colorado Agricultural	J. Fukaye	452-8208
	Roy McIntosh	452-8275
	Louis Ruzzo	452-8260
*Manhart		or
Standley Reservoir		629-6958
	George Ditolla	429-0139
Ralston Reservoir		or
Consolidated Reservoir		429-1835
	Jim Zeigler	424-6636
	Wally Wilcox	279-4222
	Kirk Keim	233-5945

DITCH RIDERS

Lyle Bush	Coors	986-5426
Ken Vaught	Coors	989-4333
Neil Jaquet	Coors	278-8507
Jim Abbeg	Farmers Highline	279-3747
Wade Isham	Rocky Mountain	425-5527
Joe Griggs	Rocky Mountain	278-3870
Ed Delva	Reno Juchem	424-6433

*Ralston Creek

WATER DISTRICT NO. 8

DITCH AND RESERVOIR COMPANIES

<u>City of Aurora</u>	Tom Griswold Ext. 321	City of Aurora 1470 East Havana Aurora 750-5000
<u>City and County of Denver</u>	Gary Bishop Ext. 273	Board of Water Commissioners 144 West Colfax 623-2500
<u>City of Englewood</u>	Vince Wertin Ext. 519	City of Englewood 3400 South Elati Englewood 761-1140
<u>Last Chance Ditch Co. No. 2</u>	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500
<u>Nevada Ditch Holding Company</u>	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500
<u>Northern Colorado Irrigation Co.</u>	Robert Rosendale Superintendent	Board of Water Commissioners 144 West Colfax Denver 733-4292
<u>Platte Water Company</u>	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500
<u>Tri City Trust</u>	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500

DITCH AND RESERVOIR COMPANIES

<u>Bergen Ditch Company, Grant Properties</u>	<u>William Grant Owner</u>	<u>333 Logan Street Denver 80203 777-0428</u>
<u>Bowles Ditch Company Grant Properties</u>	<u>William Grant Owner</u>	<u>333 Logan Street Denver 80203 777-0428</u>
<u>Evergreen Metro District</u>	<u>Daniel O. Hydrick Manager</u>	<u>Water & Sewer P. O. Box 545 Evergreen 80439 674-4112</u>
<u>Harriman Ditch Company (AKA Arnett Ditch)</u>	<u>Gary Bishop Secretary</u>	<u>Board of Water Commissioners 1600 West 12th Ave. Denver 80254 623-2500</u>
<u>Hodgson Ditch Company</u>	<u>John E. Popham Secretary</u>	<u>2995 So. Estes St. Denver 80227 989-4223</u>
<u>Independent Highline Ditch Co.</u>	<u>Stan Harwood Owner</u>	<u>Morrison 80465 697-8008</u>
<u>Pioneer Union Ditch Company</u>	<u>Jack McCoy President</u>	<u>2294 So. Sherman Denver 80210 777-5280</u>
<u>Ward Ditch Company</u>	<u>William Hodges, Jr. Secretary</u>	<u>1818-17th Street Denver 80202 892-9400</u>
<u>Warrior Ditch Company</u>	<u>Gary Bishop Secretary</u>	<u>Board of Water Commissioners 1600 West 12th Ave. Denver 80254 623-2500</u>

WATER DISTRICT NO. 23

<u>Jefferson Lake Ditch Company</u>	Ralph Johnson President	Jefferson 80456 836-2276
<u>Tunnel Water Company Inactive</u>	Viviene Woodward Secretary	P. O. Box 1584 2319 East Mulberry Fort Collins
<u>Water Supply and Storage Inactive</u>	Viviene Woodward Secretary	P. O. Box 1584 2319 East Mulberry Fort Collins

WATER DISTRICT NO. 48

DITCH AND RESERVOIR COMPANIES

Comet Ditch	Ron Hunt Manager	McIntyre Creek Ranch Inc. Glendevey Route Jelm, WY 82063 435-9537
Hills Ditch	Ron Hunt Manager	McIntyre Creek Ranch Inc. Glendevey Route Jelm, WY 82063 435-9537
Homestead	Ron Hunt Manager	McIntyre Creek Ranch Inc. Glendevey Route Jelm, WY 82063 435-9537

WATER DISTRICT NO. 76

DITCH AND RESERVOIR COMPANIES

Sand Creek Ditch	Frank Lilley Ranch Manager	Chimney Rock Grazing Assoc. S.W. of Laramie, WY 745-9575
Spring Creek Ditch	Frank Lilley Ranch Manager	Chimney Rock Grazing Assoc. S.W. of Laramie, WY 745-9575

WATER DISTRICT NO. 49

DITCH AND RESERVOIR COMPANIES

Austin Ditch	Ernest MacArthur Owner	Stratton 80836 348-5400
Hale Ditch	Harold W. Madsen	Hale 80730 354-7252
Newton Ditch	Galen Lingel Owner	Burlington 80807 354-7249
Ragan Ditch	Howard Homm Owner	Burlington 80807 346-5250
Republican Ditch	Howard Homm Owner	Burlington 80807 346-5250
Tuttle Ditch	Ernest MacArthur Owner	Stratton 80836 348-5400

WATER DISTRICT NO. 65

Bar Eleven No. 2	Miller & Goodman Owners	Wray 80758 332-5668
Chief Creek Ditch	Wiltfang & Goodman Owners	Wray 80758 332-5668
Hays Creek Ditch	Frank Miller Est. Owner	Wray 80758 332-4358
Hays Creek Ditch #3	Lee Archer Owner	Wray 80758 332-5480
Laird Ditch	Warren Noffsinger Secretary	Laird 80739 332-5373
O'Donnell Ditch	Lee Archer Owner	Wray 80758 332-5480
Pioneer Ditch (Head)	Jim Jay Secretary	Laird 80739 332-5124
Pioneer Ditch (State Line)	Jim Jay Secretary	Laird 80739 332-5124
Wray Ditch	Marion Barnett Secretary	Wray 80758 332-5825
Pyle & Cunningham	Miller & Goodman Owners	Wray 80758 332-5668
Wilson No. 1	Ash Wilson Owner	Wray 80758 332-5581
Rush Creek	Warren Noffsinger Owner	Wray 80758 332-5373

WATER DISTRICT NO. 79

Rosenkrans Ditch	Robert Jones, Sr. Owner	Wray 80758 332-5634
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DITCH AND RESERVOIR COMPANIES

Bravo Ditch	John Held Secretary	Iliff 80736 522-2416
Carlson Ditch Company	Hulbert Reichelt Secretary	Julesburg 80737 474-3400
Chambers Ditch	William Condon Owner	916 Fairhurst St. Sterling 80751 522-2460
Davis Brothers Ditch Company	Paris Accomasso Secretary	Atwood 80722 522-0629
Farmers Pawnee Ditch Company	Ralph Felix Secretary	P. O. Box 668 Sterling 80751 522-2259
Harmony Ditch Company No. 1	Mrs. Howard Hamilton Secretary	P. O. Box 205 Crook 80726 886-2833
Henderson & Smith Ditch Company	Scalva Brothers Owner	Rural Route Sterling 80751 522-2539
Iliff & Platte Valley Ditch Co.	Allen R. Pyle Secretary	228 South 3rd St. Sterling 80751 522-5762
J. B. Ditch Company	Frank Manuello Owner	Iliff 80736 522-8096
Julesburg Irrigation District	Herbert Bonesteel Secretary	Julesburg 89737 474-3737, 474-2189
Liddle Ditch Company	Don Liddle President	Ovid 80744 474-2300
Lone Tree Ditch Company	Maynard Sonnenberg Secretary	Box 1271 Sterling 80751 522-2404
Long Island Ditch	State Game, Fish and Parks Part Owner	Crook 80726 886-2992
Low Line Ditch Company	William Hoel Secretary	22811 Cnty. Rd. 36 Sterling 80751 522-7312
North Sterling Irrigation District	Alex Michel Secretary	205½ Main Street Sterling 80751 522-2025
Peoples Ditch Company	Sam Karg Secretary	Route 2 Sterling 80751 522-1469
Peterson Canal & Reservoir Co.	Elmer Meier President	Ovid 80744
Powell & Blair Ditch A.K.A. Proctor Water Co.	Allen R. Pyle Secretary	228 So. 3rd Street Sterling 80751 522-5762

WATER DISTRICT NO. 64 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Prewitt Reservoir Company</u>	Alex Michel Secretary	205½ Main Street Sterling 80751 522-2025
<u>Ramsey Ditch Company</u>	Don DeMers Secretary	Crook 80726 886-3662
<u>Red Lion Ditch Company</u>	Laurel Frame Secretary	Sedgwick 80749 463-8880
<u>Schneider Ditch Company</u>	James Williamson Secretary	Atwood 80722 522-1910
<u>Settlers Ditch Company</u>	Charles Atkinson	Crook 80726
<u>South Platte Ditch Company</u>	Charles Bartlett Secretary	Merino 80741 522-7586
<u>South Reservation Ditch Co.</u>	James Parker Jr. Secretary	Ovid 80744 463-5382
<u>Springdale Ditch Company</u>	Ralph Felix Secretary	P. O. Box 668 Sterling 80751 522-2259
<u>Sterling Irrigation Company</u>	Lawrence Giacomini Secretary	P. O. Box 1013 Sterling 80751 522-0751
<u>Sterling No. 2 Ditch Company</u>	Maynard Sonnenberg Secretary	P. O. Box 1271 Sterling 80751 522-2404
<u>Tamerack Ditch</u>	State Game, Fish and Parks Owner	Crook 80726 886-2992
<u>Upper Harmony Ditch Company</u>	Garold Marick Secretary	Crook 80726 886-3641

DISTRICT NO. 64 OFFICIALS

BRAVO

Pres.	Victor Ramey	17340 Co. Rd. 370	Sterling	522-0477
Secy.	Ivan Barden	19679 Co. Rd. 55	Iliff	522-8002
Rider	John Held	17915 Co. Rd. 370	Sterling	522-2416

CARLSON

Owner	Hub Reichelt		Julesburg	474-4300
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DAVIS BROTHERS DITCH

Pres.	Harold Schott	4237 Co. Rd. 31	Atwood	522-6551
Secy.	Paris Accomasso	15465 Co. Rd. 12	Atwood	522-6429
Rider	Reb Accomasso	15465 Co. Rd. 12	Atwood	522-1771

FARMERS PAWNEE CANAL

Pres.	Herb Vandemoer	225 Country Club	Sterling	522-3372
Secy.	Robert Roberts	717 South 7th Avenue	Sterling	522-4343
				<u>or</u> 522-0571
Rider	David Littler	13698 Corrine Road	Sterling	522-3101

HARMONY NO. 1

Pres.	James Roberts		Crook	886-3462
Secy.	Mrs. Howard Hamilton		Crook	886-2833
Rider	Lorrin Lowery		Crook	886-3665

HARMONY NO. 2

Pres.	Alvin Brunkhardt		Crook	886-2682
Secy.	Garold Marick		Crook	886-3641

HENDERSON SMITH

Scalva Brothers		13407 Co. Rd. 370	Sterling	522-2539
				<u>or</u> 522-4577

ILIFF AND PLATTE VALLEY

Pres.	Allen Freeman	26774 Co. Rd. 385	Iliff	522-8038
Secy.	Allen Pyle	228 South 3rd	Sterling	522-5762
Rider	William Huey	24081 Highway	Iliff	522-2151

JULESBURG IRRIGATION DISTRICT AND PETERSON DITCH

Julesburg Irrigation Office			Julesburg	474-3737
Pres.	Clarence Jenik		Ovid	463-5732
Supt.	Tom Frame		Julesburg	474-3735
Coord.	Bud Bonesteel		Julesburg	474-2189

LIDDLE

Pres.	Don Liddle		Ovid	474-2300
Secy.	Hub Reichelt		Ovid	474-3400

LONE TREE

Pres	Maynard Sonnenberg	406 Highland Drive	Sterling	522-1390
Secy	Maynard Sonnenberg	406 Highland Drive	Sterling	522-1390
Rider	Ralph Freeman	101 East 1st Ave.	Iliff	522-8088

DISTRICT NO. 64 OFFICIALS (continued)

LOWLINE

Pres.	Robert Fritzler	21575 Co. Rd. 74	Sterling	522-1376
Secy.	William Hoel	Route 2	Sterling	522-7312
Rider	Albert Workman	13524 Co. Rd. 37	Sterling	522-7198

PEOPLES

Pres.	Tom DeSoto	24355 Co. Rd. 40	Sterling	522-2609
Secy.	Sam Karg	23690 Co. Rd. 40	Sterling	522-1469
Rider	Tom DeSoto	24355 Co. Rd. 40	Sterling	522-2609

POWELL

Pres.	Maynard Sonnenberg	406 Highland Dr.	Sterling	522-1890
Secy.	Allen Pyle	228 South 3rd	Sterling	522-5762
Rider	William Huey	24081 Highway 138	Iliff	522-2151

SCHNEIDER

Pres.	Elmer Rasmussen	8917 Co. Rd. 370	Sterling	522-2322
Secy.	James Williamson	17880 Co. Rd. 16	Atwood	522-1910
Rider	David Littler	13698 Corrine Road	Sterling	522-3101

SOUTH PLATTE DITCH

Pres.	Keith Propst	2464 Co. Rd. 25	Merino	522-0090
Secy.	Charles Bartlett	13244 Co. Rd. 6	Merino	522-7586
Rider	Elmer Higgason	419 Park Street	Merino	522-3314

SOUTH RESERVATION

Pres.	Jim Parker III		Ovid	463-5382
Rider	Jim Parker III		Ovid	463-5382

SPRINGDALE

Pres.	Gilbert Schuman	Route 1	Sterling	522-1943
Secy.	Robert Roberts	717 South 7th Avenue	Sterling	522-4343
Rider	Alfred Leckler	13614 Co. Rd. 37	Sterling	522-1460

STERLING IRRIGATION COMPANY 1

Pres.	Richard Ramey	1005 Co. Rd. 39	Sterling	522-5705
Secy.	Lawrence Giacomini	131 Hamilton Street	Sterling	522-0751
Rider	Glen Mayerholz	13572 Road 37	Sterling	522-5719

DITCH AND RESERVOIR COMPANIES

Altura (Duck)	Ron Heitman President	838-5496 737-2254
Denver Water Voard		
Cheesman Reservoir	Carl Kershmeier	647-2213
District Foreman	Hank Bode	838-5314
Asst. District Foreman	Gene Bode	838-4185
Roberts Tunnel East Portal	Bob Woods	838-5921
Lininger Reservoir	Kenosha Trout Club	838-5684
		Route 2, Box 154
J. O. Hill Reservoir	West Creek W & S District	Sedalia 80135 687-9067
Wellington Reservoir	Ron Heitman President	838-5496 737-2254
		Route 2, Box 154
Westcreek Reservoir	West Creek W & S District	Sedalia 80135 687-9067

WATER COMMISSIONER'S SUMMARY

WATER TABULATION FOR 1981 BY SOURCE AND USE

Div 1

A. DIRECT FLOW DIVERSIONS

B. STORAGE REPORT

ALL FIGURES IN ACRE FEET

WATER DISTRICT	1 - 0	1 - 1	1 - 2	1 - 3	1 - 4	1 - 5	1 - 6	1 - 10	1 - 13	2 - 0	2 - 1	2 - 2	2 - 4	2 - 10	3 - 1	3 - 2
1	148,844	87,963			8,341			12,893			23,662			6,723		
2	30,451	149,729		4,868				1,706								
3	44,054	40,443	10,351					93,714		4,910	6,086	865		239,057	28,929	
4	16,985	31,130	2,138							516	15,432			564		
5	6,565	31,603								1,204	8,676					
6	5,573	29,345	5,033							720	11,564	14,143				
7	10,864	31,807	3,917		22,531			20,823		278	1,249	1,703		3,339		
8	545	13,013	38,279		20,355					214	1,233	11,946		3,135	2,012	1,413
9	1,615	4,603	2,535								2,257	373				
23	228	11,424	4,509		1,302	1,825		2		680	162	4,338		3,995		
48		12,349														
49		3,189														
64	7,521	80,284			826			11,994	1,775		44,828			7,926	2,868	
65		11,075														
80	9,836	3,802									8			13,362		
TOTAL	283,081	546,759	66,762	4,868	53,355	1,825		141,138	1,775	8,522	115,157	33,368		278,101	33,809	1,413

SOURCE	USE					
	0.	1.	2.	3.	4.	6.
1. River						
2. Reservoir						
3. GW						
4. TB						
5. NS						
6. Collective						
	0. Storage	1. Irr.	2. Mun.	3. Comm.	4. Ind.	6. Fish
	10. Other					

3 - 3

3 - 4 3 - 5 3 - 10 4 - 0 4 - 1 4 - 2 4 - 3 4 - 10 5 - 0 5 - 1 5 - 10 6 - 0 6 - 1 7 - 1 7 - 2

232									3,500	268		104,125	147,398
	3,967	11	852				11,107	1,757					
	15,630	16,496	708				2,380						
	3,753	14,235					30						
	11,877	16,885											
1,174		60	612				2,029	2		1,275			
			56,603										
	5,332		6,081							586			

258

1,161 4,248

55,534

258

2,335 4,480 40,559 30,802 81,821 71,080 1,759 3,500 2,129 104,125 147,398

1981
ANNUAL SUMMARY - DIVISIONS
ACRE FEET (11-1-80 thru 10-31-81)

Divisions	Non-Exempt Wells #	Ditch Structures Reported #	IRRIGATION			CURRENT YEAR		TRANS-MOUNTAIN	
			Direct Diversions To Irrigation	Diversions To Storage	Storage To Irrigation	Acres Irrigated	Export	Div. to Div.	Import
1	*9,745	1,319	775,400	396,642	99,980	1,239,655	-	481,000	
Div. (1) 1981	9,925	1,390	546,759	283,081	115,149	1,239,655	-		
TOTAL									

*An additional 4,698 non-exempt wells are in designated basins.

Divisions	Direct Diversions	MUNICIPAL		INDUSTRIAL		RECREATION Storage - Wildlife Parks	ACTUAL STORAGE		# Decreed Applications	# Water Court Applications
		Diversions To Storage	Storage Releases	Diversions To Storage	Trans. Mtn. Hydro-Power		For Year All Reservoirs	For Year All Reservoirs		
1	92,237	-	34,145	11,024	157,400	621	508,021	460	466	
Div. (1) 1981	66,762	-	33,368	40,559	252,600	-	438,046	399	488	
TOTAL										

Calling Priority

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
10-22-80	3-11-81	Prospect Reservoir	11-21-1910	2		8, 9, 23
3-12-81	4-01-81	NO	DEMAND			
4-01-81	4-13-81	Marston Reservoir	4-01-1911	8		23
4-13-81	4-16-81	No. Sterling	5-27-1914	64	Alex Michel	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
4-16-81	4-22-81	Harmony #1	4-28-1895	64	Bud Bonesteel	1, 2, 3, 4, 5, 6, 7, 8, 9, 23, 80
4-22-81	4-27-81	Burlington	3-09-1908	2	Adolph Bohlander	8, 9, 23
4-23-81	4-24-81	Highline	1-18-1879	8	Jim McClure	23
4-27-81	4-28-81	Burlington	11-20-1885	2	Adolph Bohlander	8, 9, 23 (above Clear Creek)
12:00 p.m.	4-28-81	Brighton	11-01-1871	2	George Stieber	7, 8, 9, 23
6:30 a.m.	5-04-81	Burlington	11-20-1885	2	Adolph Bohlander	8, 9, 23 (above Clear Creek)
2:00 p.m.	5-17-81	Highline	1-18-1879	8	Denver	8, 9, 23
5-26-81		Beaver Farmers Canal	09-09-1889	1	Robert F. Parker	
7:00 p.m.	11:00 a.m.	Burlington	11-20-1885	2	Adolph Bohlander	8, 9, 23 (above Clear Creek)
6-10-81	6-16-81	Fort Morgan Canal	10-18-1882	1	Lindy Crumley	2, 3, 4, 5, 6, 7, 8, 9, 23, 80
10:30 a.m.	8:00 a.m.	Highline	1-18-1879	8	Denver	8, 23
6-15-81	6-22-81	Fulton	7-08-1876	2		8, 7, 9, 23
9:00 a.m.	11:00 a.m.	Pawnee	6-22-1882	64	Dave Littler	(60 cfs cut from 1 Prewitt Inlet)
6-12-81	6-16-81	Brighton	11-01-1871	2	George Stieber	7, 8, 9, 23
11:00 a.m.	9:00 a.m.	Lathana	11-14-1877	2	Vic Klein	2, 4, 5
6-16-81	6-17-81	Weldon Valley	10-26-1881	1	Leo Groves	3
8:00 a.m.	7-10-81					
6-17-81	9-12-81					
8:00 a.m.	noon					
6-18-81	7-01-81					
6-25-81	8:00 a.m.					
	7-02-81					

Calling Priority

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
7-08-1981	7-14-1981	Weldon Valley	10-26-1881	1	Leo Groves	2, 3, 4, 5
7-10-1981	7-15-1981	Schneider	10-20-1880	64	Jim Williams	District 1 (50 cfs cut Lower Platte)
7-15-1981	7-25-1981	Pawnee	6-22-1882	64	Dave Littler	District 1 to Weldon Valley
7-26-1981	7-27-1981	Fort Morgan	10-18-1882	1	Lindy Crumley	2, 3, 4, 5, 6
7-27-1981	7-28-1981	Lower Platte and Beaver	4-15-1888	1	Herb Strauch	2, 3, 4, 5, 6
7-28-1981 7:00 p.m.	8-01-1981	Prewitt Refill	12-30-1929	1		2 (to Brighton) 3, 4, 5, 6
8-01-1981	8-04-1981	Springdale	7-19-1886	64	Alfred Leckler	2, 3, 4, 5, 6
8-04-1981	8-12-1981	Pawnee	6-22-1882	64	Dave Littler	2, 3, 4, 5, 6
8-04-1981	8-18-1981	Iiliff	10-01-1883	64	Bill Huey	64 to Pawnee
8-12-1981	8-19-1981	Lowline	10-14-1882	64	Dave Littler	1
8-12-1981	9-07-1981	Morgan Ditch	10-18-1882	1		2, 3, 4, 5, 6
8-19-1981	8-26-1981	South Platte	4-21-1883	64	Elmer Higganson	1
8-26-1981	9-08-1981	Lowline	10-14-1882	64	Dave Littler	1
8-28-1981		Beaver Ditch	5-01-1882	1	Charles Henry	1
9-08-1981 1:45 p.m.		OPERATING AGREEMENT BEWTEEN WATER		DISTRICT 1 and 64		
9-12-1981	10-19-1981	Burlington	11-20-1885	2	Cliff Herrin	8, 9, 23
10-19-1981		Horsecreek	3-17-1911	2	Butch Gerkin	7, 8, 9
11-13-1981		North Sterling	6-15-1908	64	Alex Michel	

SUGGESTIONS AND RECOMMENDATIONS

PERSONNEL-OFFICE EXPENSES

The administrative field personnel, namely the water commissioners and their deputies, maintain some type of an office in their own homes since they are on call at all times due to the nature of their work. The size, equipment, and use of that office are, of course, not only related to their administrative responsibilities and functions but also to the availability and convenience of space. Nevertheless the need for office space in the home does exist and is provided by the individual at the expense of a reduction of space for the family. Further, most of those employees rely upon their telephones, a business necessity, for communication with the various water users and other staff members. Since these field people are out checking diversions, streamflow, and water use much of the time, their wives or other members of the family must take and relay calls as necessary. Secretarial help is additionally provided by family members, generally the wife, in the generation of diversion reports and other correspondence.

It is again proposed, as it has been in the past, that the budget include, and approval be granted for the payment of a minimum of \$100 per month in addition to the regular salary to each such person maintaining a field office in his own home. To provide some equity, the allowance suggested could be scaled according to the circumstances in each case with the maximum being \$150 per month.

Although such allowance would at least be token of payment for a long unrecognized responsibility of field personnel, in most cases it would scarcely cover the capital cost to the individual for space and utilities nor even approximate scale wages for the secretarial help he receives.

WATER COURT

Since the recodification of Water Law in 1969, many thousands of water rights have been filed and adjudicated throughout the Division Water Court. Approximately 1,000 cases are awaiting determination at this time including 35 of the "John Huston Filings" which are being considered by the Supreme Court and 384 USA filings which are awaiting a decision by the Supreme Court before further action can be taken. There were 488 new applications filed in Water Year 1981 involving 1,637 structures.

Judge Behrman has worked very diligently in doing whatever he felt necessary to reduce the case back log. However, the Clerks' office has been short handed and new people have required training. Therefore, the paper mill efficiency has not been as high as was anticipated. Final judgements were issued in 399 cases involving 1,487 structures and 56 cases were dismissed involving 115 structures during Water Year 1981.

To further streamline Water Court activities, Judge Behrman formulated some rules for the District Court in and for Water Division One. These rules received no objection from the Supreme Court and went into effect on August 10, 1980. Of special note is the requirement for republication when there is:

- (1) A change of over 200 feet in structure location.
- (2) A change causing a well to come within 600 feet of an existing well.
- (3) A change or moving of a structure to a different quarter section.
- (4) A change or increase of structure use.
- (5) A request for an earlier date of appropriation.
- (6) A change in the source of water.

In urban areas having generally recognized street addresses, the street address as well as the legal description of the point of diversion or structure is to be set forth in the application and published in the Resume. Many administrative procedures are listed and expanded in an attempt to clear up confusions that have occurred in the past.



DIVISION OF WATER RESOURCES
WATER DIVISION I

James R. Clark
Division Engineer
Room 208 8th and 8th Office Bldg.
Greeley, Colorado 80631
(303) 352-8712

November 9, 1981

MEMORANDUM

TO: Margaret McCollum

FROM: James R. Clark *EB for*

SUBJECT: October Water News

Precipitation for the month of October was 0.60 inches (58.8% of average) bringing the water year total to 15.20 inches which is 127.7% of average. The late summer rains helped considerably in making up for the limited precipitation received during the winter. Stream flows have stabilized fairly well for the winter with the exception of some Colorado-Big Thompson water being transported to District One.

River flow at Kersey was 38,200 AF and at Julesburg was 5,400 AF. The River Call was 11/20/1885 (Burlington Ditch) from former Water District No. 2 until October 19, when the call went to 3/17/1911 (Horsecreek Reservoir). Water is being stored in most of the Division reservoirs.

Nineteen Injunctive Complaints were heard by Judge Behrman October 29, 1981. These included twelve complaints of operating wells without augmentation, four complaints of expanded usage, one complaint of wasting water, one complaint of water theft, and one complaint of violation of a household use only permit. Eleven of the complaints resulted in stipulations that the infractions would not be repeated and eight were set for hearing on the merits.

JRC/EWB/mah



DIVISION OF WATER RESOURCES
WATER DIVISION I

James R. Clark
Division Engineer
Room 208 8th and 8th Office Bldg.
Greeley, Colorado 80631
(303) 352-8712

October 9, 1981

MEMORANDUM

TO: Margaret McCollum

FROM: James R. Clark *Ed for Jim*

SUBJECT: September Water News

Precipitation for the month of September was 0.67 inches which is 69% of average but temperatures were approximately 4 1/2 degrees above normal. The weather has been favorable enough to allow the harvesting of crops to go on uninterrupted for the most part. Crop yields have been much better than earlier predictions indicated they would be.

September river flows at Kersey totaled 22,100 AF and at Julesburg 1,510 AF. The river call from old Water District No. 2 has been 11/20/1885 (Burlington Ditch).

Implementation of HB 1504 (consultation with the Referee) has been initiated and there has been a noticeable increase in the work load for the office staff and the water commissioners. The water commissioners have responded quite well to our requests for additional information on the applications and this has made our consultation with the Referee easier and more beneficial. There are still some rough spots which will require some time and effort to smooth out.

The big news for September was the marriage of bachelor Jim to Cindy Lewis on the 19th. Our congratulations and best wishes go to Mr. and Mrs. Jim Clark.

JRC/EWB/mah



DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 8th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712

September 8, 1981

MEMORANDUM

TO: Margaret McCollum

FROM: James R. Clark

Ed for Jim

SUBJECT: August Water News

Precipitation for the month of August was 0.78 inches (74.8% of average) and the average temperature was 1.4 degrees below normal in Greeley. There were areas in Division One that received much more precipitation and some areas received less. There was a noticeable decline in the growth rate of many crops, probably due to the cooler temperatures, but the harvest outlook remains fairly good.

August river flows for Kersey were 20,000 AF and for Julesburg were 2,600 AF. The river call varied from 6-22-1882 to 7-19-1886 in District 64 and was 11-1-1871 in District 2. Extensive use of storage water had to be used to supplement the low river flows.

The Water Referee has indicated that any applications that were filed prior to 1979 and are still pending at the March 1982 Term day with no apparent action will be subject to dismissal.

JRC/mah



DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 8th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712

August 7, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *J.R.C.*
SUBJECT: July Water News

The average temperature during July was about 1 degree above the 10 year average for the Greeley area. Precipitation was 2.74 inches or 150% of average with 1.92 inches being recorded the 24th through the 26th. Precipitation has caused the river call to fluctuate between 10-20-1882 (Schneider Ditch) to 12-30-1929 (Prewitt refill) thereby easing the demand on a short river. There was also some localized hail damage with the rain.

River flows for July were: Kersey 16,200 AF and Julesburg 2,800 AF.

Congratulations to Randy Wittler upon assuming the full time Water Commissioner position vacated by George Sievers. Randy has been a part of our summer time staff for the past two years.

The Judge is scheduled to call up 61 cases on the September Term day and the Referee is scheduled to call up 183 cases.

Richard D. Lamm
Governor



Jeris Danielson
State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 9th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712

July 8, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: June Water News

June temperatures were about 3 degrees above the average and precipitation was only 37% of normal (0.67 inches) in the Greeley area. Precipitation along the lower South Platte River was sufficient to keep the River call off until the 15th when Fort Morgan placed a call (10/18/1882). Since that time, the call has increased (Weldon Valley 10/26/1881). Calls in the upper reaches of the River have been in effect for some time with the Brighton Ditch calling (11/1/1871) on the 17th.

As anticipated, there was very little snow pack runoff. With the help of some timely rains, river flow at Kersey peaked at 3,180 CFS on the 4th. The daily flow reached a minimum of 95 CFS at Kersey on the 24th. Total flow at Kersey for June was 48,300 AF and at Julesburg was 39,900 AF. We are fortunate that most reservoirs are full as releases were required during June. It looks like a long, hot, dry summer is ahead of us.

Congratulations to Keith and Pearl Delventhal who were married July 3rd. We wish them many years of happiness.

We welcome Mary Anne Honn to Division One. Mary Anne began work with us July 1st as Secretary.

Richard D. Lamm
Governor



Jeris Danielson
State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 8th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712

June 8, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: May Water News

Temperatures were slightly below average and precipitation was significantly above average for May. Greeley received 5.36 inches of precipitation (222% of average) bringing the water year total to 162% of average. There were areas along the lower South Platte River that received more than 5.36 inches (including some hail) and there were also areas like South Park that received much less than 5.36 inches. The river call was 11-20-1885 from District 2 and 1-18-1879 from District 8 until May 22 when the call was removed. River flow at Kersey for May was 38,000 AF and at Julesburg was 20,600 AF. Reservoir storage remains good throughout the Division.

The Division office was informed May 27 that there was a problem with Horse Creek Reservoir dam that was becoming critical. Steps were taken to reduce storage in the reservoir and to stabilize the dam where weakness was detected. Approximately 4,000AF has been released (16,000 AF total storage) and an earth berm along the downstream face of the dam is under construction.

Water Court has advised that applicants can save time when adjudicating a well if they include a well permit or denial with the court application. Anyone filing simultaneous applications for a well permit and a water right will not be issued a Ruling or Decree until a permit or denial is received or there is proof of 6 months of inaction after all requested information has been received.

There have been indications that some people are unaware that they can receive a copy of the Water Court Resume by mail. Send your request with \$12.00 to the desired Division Water Court and you will receive the Resume for a year.

Our deepest sympathy goes to the family of Dugan Wilkinson on his passing.

Richard D. Lamm
Governor



Jeris Danielson
State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
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GREELEY, COLORADO 80631
OFFICE: 352-8712

May 8, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: Jim Clark *JRC*
SUBJECT: April Water News

The weather was unseasonably warm during April with temperatures 7.5% above normal, while precipitation was 71% of normal (1.05 inches). The cumulative water year precipitation is 122% of average but the May 1 snow pack report indicates there is little snow left. There are indications that some of the streams may have already peaked. It is going to a long hot summer unless there are some good summer rains.

River flow at Kersey dipped below 100 cfs on May 1, but good rains over the weekend have helped considerably. Total flow at Kersey for April was 24,100 AF and at Julesburg was 21,400AF. Reservoir storage on May 1 was 1.35 MAF which is 106% of normal. The river call went to 11/1/1871 on April 28 (Brighton D-Dist.2). However, the lower South Platte area received enough rain (and hail) in April to delay corn planting. Some sugar beets may have to be replanted because hail packed the ground sufficiently that the sugar beets cannot break through the crust.

The Water Referee has maintained a fairly heavy hearing schedule due to Term Day settings. However, anyone wanting to set a hearing is encouraged to contact the Water Clerk as there are still open dates available.

The forecast of a long, hot, dry summer means that many farmers will be relaying more on wells for irrigation. There are still wells that are not operating pursuant to an approved plan for augmentation but our staff has been busy planning their course of action to find these wells and bring them into compliance. We have been fairly successful in our efforts so far.

There have been many cases of expansion of acres irrigated with the advent of sprinkler systems and improved well technology. The Weldon Valley decision provided some guide lines for us to use in controlling expansion. Well users are reminded that any change or expansion of use requires a new permit.

The Supreme Court has issued a decision in the Vickroy Case concerning the application for underground water rights in designated basins. This decision appears to indicate that a determination must first be made in the appropriate District Court that the source is tributary. With this determination application can be made to Water Court for a water right.

JRC/EWB/psw



DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
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GREELEY, COLORADO 80631
OFFICE: 352-8712

April 7, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: March Water News

The drought appears to have been interrupted if only temporarily. There were 2.23 inches of precipitation recorded at the UNC weather station which is 297% of average bringing the water year total to 3.33 inches which is 163% of average. Temperatures remained approximately 5 degrees above normal.

River flows have remained higher than anticipated with the dry weather so that the storage of water has continued throughout the winter. Storage was 1.05 MAF on March 1, 1981 (102% of average) and 1.13 MAF on April 1, 1981 (106% of average). River flow at Kersey was 45,000 AF and at Julesburg was 15,000 AF. The river call was 11/21/1910 (Prospect Reservoir) until March 11, when the call was lifted.

There were 5 days of hearing during March on the Northglenn Augmentation application. The question was whether Northglenn could use three ditch rights they had purchased for replacement purposes. These Ditch Decrees apparently tied the water to the land historically irrigated or else the water had to be released to other stockholders under the system or to the river. Memorandas are to be submitted by the 18 attorneys before the Judge enters his decision. Hearings on the Augmentation Plan will come later.

Adjudicated springs are administered in the priority system and would not normally have water legally available during the irrigation season and would not be dependable domestic water supply. If the springs have historically been used as domestic water supplies and can qualify as exempt wells, the owners are encouraged to adjudicate them as exempt spring wells.

A reminder that the Water Court mailing address is:

Division One Water Court
P.O. Box C
Greeley, Colorado 80632

RICHARD D. LAMM

Governor



J. A. DANIEL

State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 8th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712 121

March 6, 1981

MEMORANDUM

TO: MARGARET MC COLLUM

FROM: JAMES R. CLARK *2d for Jim*

SUBJECT: FEBRUARY WATER NEWS

Our weather has been more like Indian Summer than winter the last two weeks with temperatures in the 60's and low 70's and no precipitation. Our annual meeting storm produced 0.11 inches of precipitation (total for the month) and gave us our first real cold weather (-13 degrees). The average temperature in February was 4 degrees above normal. Our snow pack is hurting!

The warm weather has made farmers anxious to start working and at least a part of the onion crop has been planted. There have been some requests to run irrigation water and even a hint that an early call was going to be placed on the river. However, the first major storm of the season arrived March 2nd and the 1.24 inches of precipitation (rain and snow) caused the farmers to relax some. There is more rain and snow in the forecast!

The river call remained at 11/21/1910 (Prospect Reservoir) for the month. River flows have been good considering the dry weather and reservoir storage has been improving steadily. Reservoir storage on February 1 was 1.002 MAF (with Horsetooth and Carter) which is 102% of average. River flow at Kersey for February was 39,500 AF and at Julesburg was 25,600 AF.

Judge Shivers, the special Water Judge, has issued his Judgment and Certification in the John Huston, et.al water right claims. First reports indicate these claims have been circumvented but there are indications this decision may be appealed by both sides before it is all over.



DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
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OFFICE: 352-8712

February 6, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: January Water News

January weather was much warmer than normal (average temperature 9° above normal) while precipitation was average (0.33 inches). A high of 63° was recorded on the 23rd and a low of 6° was recorded on the 18th. Snow survey's on the Poudre drainage taken the end of January indicate the snow pack is approximately 28% of average and well below last year. More snow has fallen since the survey but the snow pack is still well below normal.

River flows for January were: 43,700 AF at Kersey and 40,700 AF at Julesburg. January 1st reservoir storage was 1.03 MAF (with Horsetooth and Carter) which is 101% of average. The river call remained at 11/12/1910 (Prospect Reservoir) throughout January.

The Water Court has issued a Memorandum of Decision and Decree in the Headley case after many meetings and many days of hearings spanning nearly a year. Mr. Headley has constructed several reservoirs which are used to collect water from the Riverside Canal during periods of no call. The collected water infiltrates into the alluvium and is stored in an underground reservoir under his land. Mr. Headley has constructed three wells as "outlets" to the underground reservoir which he intends to use to irrigate approximately 600 acres. Many issues and claims arose from the application which the Court did not decide, however, the Court did decide, following testimony by the State Engineer, that the plan for augmentation could enter, subject to the limits defined in the Decree. The Court will retain jurisdiction.

We welcome Lorraine Haywood to Water Court. Lorraine is working part time with most of her efforts directed toward getting Referee Rulings proofed and out.

Riverside Irrigation Company has just completed an extensive repair project on their diversion structure which was damaged by high flows last May and June. Approximately half of the diversion dam was undermined and destroyed allowing the river to bypass the diversion structure. Visits to the site during construction proved educational to anyone not familiar with construction of large diversion dams in sandy rivers.

All inquires concerning Water Court should be directed to Marcie Spelts instead of Judge Behrman's secretary, Shirley Stowe. Marcie has more access to information concerning Water Court matters.

JRC/EWB/psw

Richard D. Lamm
Governor



Jeris Danielson
State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
ROOM 208 8th AND 8th OFFICE BLDG.
GREELEY, COLORADO 80631
OFFICE: 352-8712

January 7, 1981

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: December Water News

December weather was the warmest of record for the Greeley area as new high temperature records were set on 5 days. A high of 75° was recorded on the 17th while a low of 13° was recorded on the 2nd and 20th. The average temperature was 9.5° above the ten year average for December. Only 0.11 inches of precipitation were recorded at UNC which is 39% of average. The outlook for January is for more warm, dry weather. Think Snow!

River flows for December were: 48,200AF at Kersey and 21,200AF at Julesburg. The December 1st reservoir storage was 880,400AF (with Horsetooth and Carter) which is 101% of average. The river call remained at 11/12/1910 (Prospect Reservoir) throughout December.

The Supreme Court has modified their August 5, 1980 decision in the Rothe Brothers Case that was reported in the October Water News. The modification followed more hearings and was dated November 10, 1980. Deleted was the requirement for determining the historical use of reservoir water rights when the use is changed. Inserted was the requirement to consider the adequacy of the reservoir water rights for replacement purposes.

Judge Behrman has a new Law Clerk. We welcome Steve Johnson to Division One.



DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
JAMES R. CLARK
IRRIGATION DIVISION ENGINEER
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GREELEY, COLORADO 80631
OFFICE: 352-8712

December 8, 1980

MEMORANDUM

TO: Margaret McCollum
FROM: James R. Clark *JRC*
SUBJECT: Water News - November

November weather was fairly nice in Division One. The average temperature in Greeley was 3.4° above average with a high of 79° on the ninth and a low of 9° on the seventeenth. There were 0.45 inches of precipitation recorded at UNC which is 102% of average.

River flow at Kersey for November was 46,200 AF and at Julesburg was 7,700 AF. Reservoir storage on November 1 was 811,600 AF (with Horsetooth and Carter) which is 103% of average. There was sufficient flow in the river to allow desired diversions to storage with Prospect Reservoir placing the only call (11/21/1910).

The 1980 diversion data has been keypunched but processing has been held up for a program modification which allows for tape output, a change requested by Walt Knudsen. We anticipate this modification will be completed shortly. Year end reports are taking shape and the Hydro's are busy with records and are preparing for winter. The nice weather in November did allow for some much needed repairs at the mouth of the Big Thompson canyon and at the Loveland power plant structures which were damaged by the high flows this past spring.

A Memorandum of Decision was issued by Judge Behrman in the case of Allenspark Water and Sanitation District vs. Triple Creek Ranch Co. Allenspark gained title in 1976 to a water right decreed in 1951 that was used to supply approximately 19 summer cottages in the mountains. The above ground pipeline was subject to freezing therefor unusable during the winter months. The contractual agreement allowed the seller continued reasonable use of this water. Allenspark built another diver-

sion structure and an underground pipeline closeby the original structures so that approximately 110 customers could be served year round.

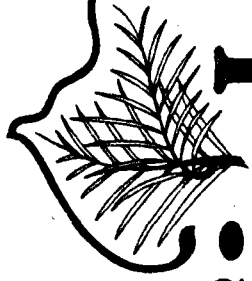
Between 1951 and 1976, Triple Creek developed a water system upstream from Allenspark to serve a residential development on its property. This system as built has to divert large quantities of water during the winter months to prevent freezing and the excess water is discharged into an adjacent basin such that the Allenspark water right is often shorted during the winter months. The evidence indicates that with a properly constructed Triple Creek system there would probably be sufficient water to fill both rights but the parties chose litigation rather than cooperation, thus the lawsuit.

The Court denied the injunctive relief requested by Allenspark since the present use by Allenspark involves one or more changes to their water right which have not been Decreed: 1) The upgraded pipeline which allows year round use in addition to the original structure. 2) Change from domestic use to municipal use. The Court relied in part on language from Farmers Highline Canal and Reservoir Company V. Golden 129 Colo 575 ... that the appropriation is limited to the extent of use contemplated at the time of appropriation, and a change in use is strictly limited to the extent of former actual usage.

The Court also questioned whether Triple Creek had established a reasonable means of effectuating its diversion as required by CRS, 1973 but this was not within the scope of the issues framed by the pleadings and was not litigated at trial.

Judgement: That plaintiff take nothing by its complaint, and that defendants have their costs.

JRC/EWB/slw



High Timber Times

VOLUME 4 NO. 50 THURSDAY, December 11, 1980 CONIFER, COLORADO 25 CENTS (U.S.P.S. 387 - 940)

State denies right to water stock

by Cheryl Johnson

A complaint has been filed in the District Water Court asking that a Burland homeowner be prohibited from watering livestock from the well on his property.

Robert C. Ozer, who lives on Sleepy Hollow Road in Burland Ranchettes and maintains several horses, has been charged by the state with violating the use restrictions of his "in house use only" well permit at his home.

According to State Engineer Jeris A. Danielson, the policy of the State Division of Water Resources is that in house use permits allow water use for household purposes only. "This precludes any outside uses through faucets attached to the dwelling or through pipes which provide service outside the dwelling," according to Danielson.

Specifically this means no irrigation of lawns or gardens or the watering of livestock.

Ozer told the High Timber Times Tuesday that having horses was one of the main reasons he had moved to the area. "I came up looking for horse property and understood that horses were allowed. I was not aware of any conditions on my well permit," he said.

He said he felt the complaint was just one of several forms of harassment he had experienced in the aftermath of the recent recall effort in Park County.

Ozer, a Conifer-based attorney, represented a large group of Park County residents in an unsuccessful effort to force a recall election for three county commissioners.

"In the aftermath of the recall a number of the people involved were harassed in different ways. This is just part of it," Ozer said.

Asked about a connection between the recall effort and the Division of Water Resources, Ozer alleged to former business relationships between the water commissioner

and a major opponent of the recall effort.

Water Commissioner Ken Salsler told the High Timber Times, "My first contact with Mr. Ozer followed an oral and written complaint I received from a neighbor (of Ozer's) who was experiencing well problems. When I explained the intent of the law to Ozer, he indicated he was not going to comply," said Salsler.

"Next I delivered a written order to his office. When he still did not bring his water use into compliance, the State Attorney General's office issued the formal complaint." Salsler said he had contacted other residents regarding the same problem and none of the others refused to comply.

Assistant Division I Engineer Ed Blank said that Ozer is just one of many people who have been contacted concerning water violations on in house use permits. He did say that Ozer is the only one who has been taken to court on the matter that he knows of.

"It is not our intention to pick on him," Blank said, "but our job is to administer the law and Ozer has in fact thumbed his nose at the law by not complying with the order," he continued.

"Enforcement of this (household use only) has not been as strong as it should have been in the past," Blank said. "This was partly due to a shortage of manpower, but partly because only in the last few years has population density reached a point where violations are becoming a problem."

Ozer's next step is a reply to the complaint. After that has been received by the state, a hearing will be set in the District Water Court.

The results of that hearing may well have far-reaching effects for this as well as many other areas in Colorado. For there are thousands of homeowners, many in this area, who water livestock or gardens on "in house use" well permits.

Poudre water users file water rights

EATON — The Cache la Poudre Water Users Association has filed its application for water rights in connection with the Idylwilde-Grey Mountain Project on the Cache la Poudre River northwest of Fort Collins.

Harlan Seaworth, a Wellington-area farmer and livestock feeder and president of the association, made the announcement Monday afternoon following the annual meeting of the association in Eaton.

The Idylwilde-Grey Mountain Project consists of a series of storage reservoirs designed to impound up to

400,000 acre feet of flood waters now lost to the State of Colorado for lack of storage capacity, Seaworth explained.

"The impounded water will be first utilized for the production of 274,000 kilowatts of electric power and energy to serve the increased energy needs of the region, and the waters will thereafter be available to the farms, municipalities, and industries of the area for a variety of beneficial uses," Seaworth said.

Seaworth pointed out that the Cache la Poudre Water Users Association had cooperated with the U.S.

Bureau of Reclamation in making studies of the project in the early 1960s.

"Although the association had desired to proceed with the project at that time, the Bureau of Reclamation was then of the opinion that there would not be sufficient market for the electrical energy to be produced to justify the project. This view turned out to be wrong," Seaworth said.

The situation in 1980, he said, is different.

"The growing population in northern Colorado has resulted in more and more water being transferred from agricultural to

municipal uses, and existing water supplies are being stretched to their limits.

"In addition, demand for hydroelectric power has increased dramatically as the entire country searched for clean, pollution-free alternatives to fossil fuels or nuclear energy. This demand could produce enough revenue to pay all costs of construction and operation of the project," Seaworth said.

The changing energy and water picture prompted the Larimer County Farm Bureau, the City of Greeley, the Cache la Poudre Water Users Association, the Northern Colorado Water Conservancy District and many other groups to re-examine the Grey Mountain project's feasibility.

These groups requested that the NCWCD take the lead, and the district has requested \$1 million from the Colorado Water Conservation Board to conduct a full study of the project.

"The feasibility study will include a complete analysis of all environmental impacts associated with the proposal," Seaworth emphasized.

The association, he said, is expected to request that no action be taken concerning the

designation of the Poudre as a "wild and scenic" river until these studies are completed.

"The decision to develop, or not develop, additional storage reservoirs on the Poudre is too important and far-reaching to be made without a full analysis of all possible benefits and detriments to be expected from either option," Seaworth said.

Acknowledging the desire of many residents to preserve the aesthetic beauty of the Poudre Canyon, Seaworth noted that "necessary studies would establish whether or not additional reservoirs could be built without adverse effect on the environment." He also said that many existing reservoirs on the Poudre had enhanced rather than detracted from the beauty of the stream.

The members of the Cache la Poudre Water Users Association include the ditch and reservoir companies of the Cache la Poudre Basin as well as the major cities and industries of the area.

Seaworth explained that the water filing was made by the association as a representative of all of these varied beneficiaries.

The Greeley Daily Tribune

Tues., Dec. 16, 1980 B-1

Attorney alleges 'retaliation'

by Gwynne Glover Hackworth
A local attorney has alleged "unlawful and discriminatory retaliation" by a state water commissioner in a counterclaim to the state's complaint against him. The state's complaint was issued

to Robert C. Ozer for violations of provisions against watering livestock of his "in house use only" well permit.

In his counterclaim, Ozer alleges Water Commissioner "Kenneth Souser," misspelled in Ozer's

brief, has "undertaken a systematic course of harassment of defendant, defendant's clients, and other citizens of Park County who signed recall petitions."

Ozer also states that "Souser has selectively picked upon defendant,

defendant's clients, and signers of the recall petitions to enforce petty well permit conditions; while ignoring identical widespread minor infractions by others."

Ozer represented a group called Recall Imboden, Davis and

Streeter, (RIDS), which tried to force a recall election of Park County commissioners last year.

Ozer alleges "Kenneth Souser has at various times been employed by and/or otherwise financially beholden to a member of the Park County Planning Commission, (since resigned)." Water Commissioner Ken Salser

said Tuesday, "I have no idea what or who Mr. Ozer is talking about. I followed procedures in this case according to the law."

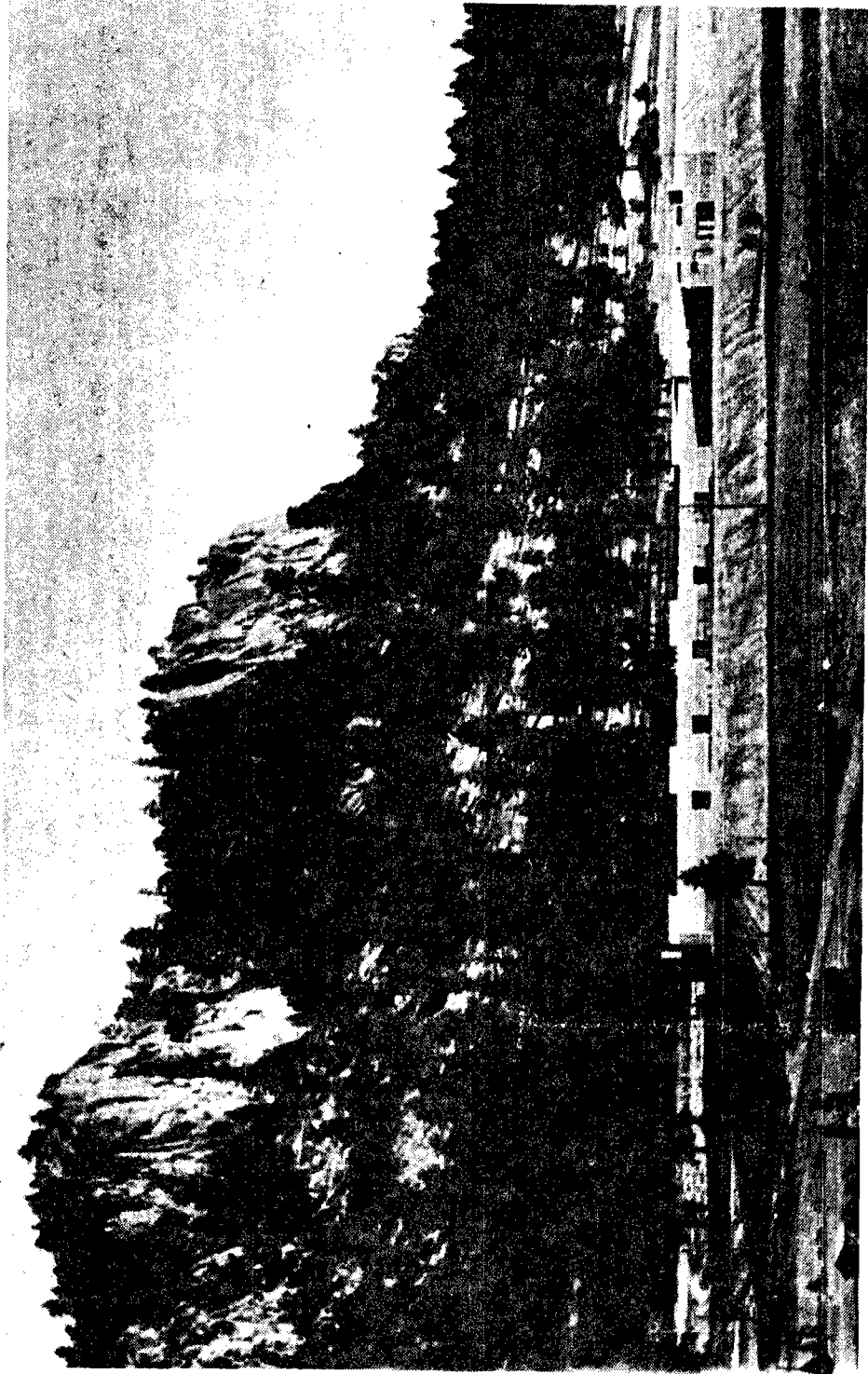
Salser said he had originally contacted Ozer when he received a complaint from a neighbor Sept. 5 that Ozer was watering livestock from his well. After observing the livestock at Ozer's residence, Salser said he talked with Ozer Sept. 7 about complying with the law.

"Mr. Ozer stated at this time he had no intention of complying with the order," Salser said. After issuing a written order to Ozer to comply with regulations, Salser said the State Attorney General's office issued the formal complaint.

In his answer to the state's complaint, Ozer "denies, however, that such use violates any applicable law, regulation or well permit."


Ozer said Tuesday, "There is no legal basis for the law that has yet been shown to me - that says household use means use within the four walls of the building itself."

Jeffrey Kahn, assistant attorney general for the Natural Resources Section, could not be reached Tuesday for comment. A spokesperson from the District Court for Water Division No. 1 said Tuesday the court had received Ozer's answer and counterclaim but had not yet taken action. A



THE NEW MARSHDALE ELEMENTARY SCHOOL - opened for classes Tuesday, Jan. 6. Teacher orientation was held Monday, Jan. 5. A back-to-school night for parents and students is planned for later this month. (Times photo by Mike Quain-fance.)

Continued on Page 121



High Timber Times

VOLUME 5 NO. 2 THURSDAY, JANUARY 8, 1981 CONIFER, COLORADO 25 CENTS (U.S.P.S. 387 - 940)

Attorney alleges retaliation

Continued from Page 1

hearing had not yet been set at presstime.

The results of that hearing may have far-reaching effects for the many homeowners in the mountain area who use their "in house use only" wells to water their livestock and gardens.

Salsner said Tuesday, "I'm sorry that Orzer is sidetracking the issue. He could have done people a big favor if he approached this realistically and tried to get the law defined."

Salsner said he has offered to help people by talking with them about solutions to the problem of "in house use only" well permits.

These solutions include augmentation for livestock water where ample ground water is available, the stabling of livestock where senior water rights are available, or the transport of senior water to the location of livestock. The least desirable alternative to most is the dispersing of livestock, he said.

Salsner said that after observing ground water conditions in Jefferson, Park and other counties, it is his belief that other than "in house" use from the fractured rock aquifers creates a dangerous situation in most cases.

Not only does outside use endanger the senior water rights but can quite seriously affect the yield of cosmetic wells for in house use in developed areas.

The decision of the court should clarify the law and its intentions so that area homeowners can take the necessary steps to comply.

Poudre waits as controversy builds

EDITOR'S NOTE: This is the first story in a five-part series about a proposed water storage project on the Cache la Poudre River.

GORDON PROCTOR 2-1-81
Of The Coloradoan

The Poudre Canyon is calm in late January. The herds of summer tourists are gone. Ice blankets the river.

Only the permanent residents remain within the ancient canyon walls.

But the calm belies the controversy building downstream. A state agency, and possibly the Colorado General Assembly, may soon consider funding a study to see if two reservoirs can be built in the canyon.

The dispute has become known as the Grey Mountain controversy. It is the biggest environmental dispute to hit Larimer County for several years and threatens to become the most controversial.

Although initial construction on the two-dam project would be at least 10 to 20 years away if

Grey Mountain:

Fight for the Poudre

approved, proponents and opponents already are prepared to fight.

On one side, people want a formal study of the two-dam project. On the other, people are seeking federal "Wild and Scenic" designation for the Cache la Poudre River.

Disputes such as this appear to be inevitable as Colorado continues to grow. The Poudre Canyon is one of the most used recreational resources in Colorado. The Poudre starts high in the Rocky Mountains and courses more than 50 miles through the canyon.

The river is one of the most frequently fished streams in Colorado. U.S. Forest Service estimates say fishermen, hikers and campers spend 112,000 recreational days a year in the canyon.

But the same qualities that make it popular for recreation make it attractive for a reservoir. It is a narrow, steep canyon, elevated above a metropolitan area.

Because of unprecedented growth, demand for more water and the need for better storage facilities, a group of irrigators and water users have revived the Grey Mountain project, which was shelved by the federal government in 1963.

The project as now envisioned proposes two reservoirs and hydroelectric plants in the canyon. The first reservoir would be near Grey Mountain — the project's namesake — in the lower canyon. The second, and smaller reservoir, would be located approximately two miles above Rustic.

Proponents are pushing for a study of the project's feasibility. A \$600,000 request to do the study is before the Colorado Water Conservation Board. The board is expected to take action on the proposal Feb. 11.

Supporters of the project see it as a way to preserve agricultural water. The project also could

Poudre, Page A7

Cont'd. on next Page

Poudre

Continued from Page A1

2-1-81

save some irrigation companies millions of dollars. Many plains reservoirs face cleanup costs that could be avoided by building Grey Mountain and storing plains reservoir water there.

Opponents to the project are equally fervent about stopping the project.

A group called Preserve Our Poudre has 200 members. Canyon residents seem to be solidly opposed to the dams. The Sierra Club, Audubon Society and similar groups have come out against the dams. The American Wilderness Alliance has pledged to make the Poudre a national cause.

The issue divides people into at least two camps. On one side are those like Francis Bee and Howard Lindholm of the Larimer County Farm Bureau. They say Larimer County is only attractive because of past water development. Unless more water development occurs, the semi-arid region will deteriorate in the face of unprecedented growth, they say.

They also say those who oppose the project are mainly newcomers who don't understand this is a semi-arid region dependent on water development.

Bee is a Larimer County native who recalls the days when his family brought a wagon to Fort Collins to get drinking water.

Water development eventually made that unnecessary, he said. He predicts problems unless water development keeps pace with growth.

"We could be looking back one day saying, 'Oh, why didn't we do something.' Every time we have a drought, we'll be wondering why we didn't build that project," Bee said.

On the other side, people say the Poudre Canyon is a precious, one-of-a-kind resource. Dams can be built elsewhere, they say.

"Maybe you can't compare it to Hell's Canyon or the Grand Canyon, but it is the most outstanding on the whole Front Range," said Karen Waddell, president of Preserve Our Poudre.

While proponents say more water is necessary to preserve the area's quality of life, Waddell argues the Poudre Canyon exemplifies the essence of Larimer County's quality of life.

"Even if they do a study and find the dams are cost effective, I would oppose it," she said. "Even if it is the most perfect place for a dam, the canyon should have priority. It is the only one. It is unique."

"If you go up there you can visualize pioneers cutting lumber and floating it down the river. You can see the foliage. You can see the animals. As the area grows, it will be even more important to have an area where people can see natural history. It's just as important as what's in a museum," Waddell said.

Canyon resident Fred Wrobbel echoes the critics when he says he isn't opposed to someone using the Poudre's unclaimed water, but he thinks that doesn't require damming the canyon. Plains foothill reservoirs could be built instead, he said.

"I think we need water, but we don't have to give up everything to have it," he said.

Waddell and other dam opponents also charge that many of those pushing the Grey Mountain project stand to gain personally from the project. Building Grey Mountain would allow closing many leaky plains reservoirs, saving irrigators millions of dollars, she said.

"It is synonymous with porkbarrel," claims Jerry Mallet of the American Wilderness Alliance.

Not so, counters Earl Phipps, manager of the Northern Colorado Water Conservancy District. It will benefit the irrigators, but he claimed that is a small portion of the benefits. The biggest benefits will be the new water and power provided, Phipps said.

The two sides are playing for big stakes. The project will cost between \$340 million and \$1 billion, depending on whom you listen to.

It could provide enough new water for a city of 160,000 people, create new electrical "peaking power," and create two reservoirs about the size of Horseshoeth.

But it also could destroy the canyon's Bighorn sheep population and affect deer herds, mountain lions, bears and 13 miles of prime trout fishing. It would inundate dozens of homes and flood much of the most-used river sections.

The third element in the controversy is an underlying issue: a federal "wild and scenic" proposal for 67 miles of the Poudre.

If passed by Congress, the river would be given federal status that would preserve it in its present state. Major alterations like Grey Mountain would be prevented.

The U.S. Forest Service has made a preliminary recommendation for designation. Its final recommendation is to be announced soon. It will be sent to Washington for review by federal agencies and then to Congress for possible enactment.

Preserve Our Poudre, The American Wilderness Alliance, Sierra Club and Trout Unlimited all have supported the wild and scenic designation. When the Forest Service sought comments on the proposal, it received 1,100 letters. That was a state record for response to a proposed wild and scenic designation and the second highest response ever in the country. Of those, about 1,000 favored designation.

Letters came from as far away as Michigan and Ohio.

"I strongly support the inclusion of the Poudre in the wild and scenic river system," wrote a Michigan woman. "The loss of this river would be a tragedy for the whole country."

Water interests have pledged to attempt to stop the designation, at least until a study shows the dams are not feasible.

The Farm Bureau, the Cache la Poudre Water Users Association, the Northern Colorado Water Conservancy District and the Fort Collins Area Chamber of Commerce have come out against designation.

The conservancy district asked the Forest Service to review extensively its recommendation to include the impacts on the area if canyon water development is prevented.

Settlement of the issue will take years, maybe decades. The Poudre is the 12th river studied for designation in Colorado in the past six years. So far, 11 have been recommended for designation. Congress has not approved any.

A study of the dams alone could take two to three years.

MONDAY: The pros and cons.

Poudre project to be size of 2 Horsetooth 2-1-81 reservoirs

GORDON PROCTOR
Of The Coloradoan

To get an idea of the size of the Grey Mountain-Idylwilde project, imagine two Horsetooth Reservoirs in Poudre Canyon.

Grey Mountain would start two miles above the canyon mouth. Idylwilde would be about two miles west of Rustic, in the Kinnikinnick meadows.

The Idylwilde dam would be 290 feet tall and 1,250 feet wide. It would hold 180,000 acre feet of water. The capacity of Horsetooth is 200,000 acre feet.

An acre-foot is the amount of water needed to cover one acre of land one foot deep.

It would stretch about six miles up the canyon, from below the state fish hatchery up to and including Sleeping Elephant campground.

Much of the Kinnikinnick meadows would be under 200 feet of water. The native cutthroat trout waters in the upper stretch of the Cache La

Poudre River would be inundated, as would the hatchery.

A power plant would be located at the east end of the reservoir.

A road would be routed on the north canyon wall. Opponents say the road would go through wintering grounds for a Big-horn sheep herd.

The Grey Mountain reservoir would be bigger. Its rock and earthen dam would be 375 feet high and have a 1,550-foot span. It would hold 220,000 acre feet of water.

The dam would be two miles west of the canyon mouth, which is about 10 miles north-west of downtown Fort Collins.

The reservoir would back up to Poudre Park. It also would back up the North Fork of the Poudre, inundating the Fort Collins treatment plant and Seaman reservoir.

Many private homes would be inundated by each reservoir.

Power plants, conduits, tunnels and smaller impound-

ments would be built between the two dams.

At the lower end of Indian

Meadows, a 15-foot high dam would be built. It would hold water to be pumped uphill

through an 11.6-mile tunnel to another small reservoir on the canyon rim above Poudre Park.

The tunnel would be called the Elkhorn Conduit; the small canyon rim reservoir would be known as the Cache La Poudre Forebay.

The tunnel and forebay would be needed for power production. The grade below Idylwilde would not be steep enough to generate electricity so water would have to be pumped up to the rim and then dropped back into Grey Mountain reservoir.

A power plant would be located at the west end of Grey Mountain to generate electricity from water dropped from the forebay.

The impact of the construction on wildlife is unclear.

A study by some Colorado State University wildlife researchers says the impact will be significant. The study says

the canyon sheep herd would be destroyed and other species would be damaged.

Dam proponents say the effects are unknown and will not be unless a feasibility study is performed.

A 1979 update of a 1963 report on the project says: "Some of the more scenic stretches of the Poudre River as they are presently accessible from Highway 14 would be subject to encroachment of water held in storage. ... Having once been covered by water, these areas would never have the same appeal to the general public that they now have. ... The report continues: "Road relocation would, however, open up new areas, the scenic attractiveness of which is generally not available to the public at the present time."

Debate about aesthetic and environmental effects of the project probably will be long and heated.

Future needs split camps in Grey Mountain issue

GORDON PROCTOR
Of The Coloradoan
Second of five parts

2-2-81

Backers of the proposed Grey Mountain project say the Poudre Canyon reservoirs would provide additional water, electricity and recreation for the growing Fort Collins area.

Opponents charge the project would destroy the popular canyon. They say the water and power Grey Mountain would provide could be provided elsewhere for less cost and environmental damage. And they contend that the farmers, irrigators and water users pushing the project are the ones who have the most to gain.

A loose coalition of farm and water groups is trying to revive the Grey Mountain project that was shelved by the government in 1963. A leader in

the effort is Francis Bee of the Larimer County Farm Bureau.

He said he started thinking about the project during the 1976-77 drought. With a growing population, more water projects are needed to meet urban demands without sacrificing agricultural water supplies in this semi-arid region, Bee said.

While most of the water in the Cache la Poudre River already is appropriated, it has occasional flood flows that escape the region unused, he said. State figures indicate 460,000 acre feet left the river unused in the exceptionally wet years of 1979 and 1980, Bee said.

An acre foot is the amount of water needed to cover one acre of land one foot deep.

"In the last two years enough water has gone out of the Poudre to fill both reservoirs," Bee said.

Those were exceptionally wet years, but the long-

Grey Mountain: Fight for the Poudre

term average will be about 40,000 acre feet yearly, said Earl Phipps of the Northern Colorado Water Conservancy District. That is enough water to serve a city of 160,000, he said.

The two reservoirs would each hold about 200,000 acre feet of water, each being about as big as Horsetooth Reservoir. But the reservoirs will provide much less water than that each year. Only 40,000 acre feet of additional water will be held in the

reservoirs, the rest will be filled with water already held in plains reservoirs.

Howard Lindholm, president of the county Farm Bureau, said his group is interested in Grey Mountain because its members think it will help the farmer. If more water is available for cities, the pressure to convert agricultural water to city water will lessen, he said.

Bee said water is what he is most interested in, but power would be the biggest overall project benefit. As it now is planned, the hydroelectric power would be sold and used to pay for the project.

Platte River Power Authority has no firm figures indicating it needs specifically Grey Mountain's electricity, said Albert Hamilton, general manager. But projections show that generally the area will

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Future

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need more power, including peaking power, he said.

By the year 2000, PRPA probably will need between 30 and 80 more megawatts of power to meet peak demands, said Hamilton.

Hydroelectric power is attractive because it is suitably designed for providing "peaking power" at times of high demand, said Hamilton.

"From an operational standpoint the most desirable peaking capacity is hydro," said Hamilton. "It's big advantage is that it starts quickly and is available on short notice."

Robert Berling of the U.S. Power and Water Resource Service says that 274 kilowatts of power a day could be provided with the project. Add that to the power and recreation benefits and it makes an attractive project, he said.

"Out of the whole Front Range, we don't see a better resource opportunity than the Poudre," Berling said.

Others disagree. A variety of opponents are united mainly under a group called Preserve Our Poudre (POP).

Jim O'Brien, a Fort Collins hydrologist and POP member, doubts

that as much as 40,000 acre feet of water would be provided. He said the 1983 Grey Mountain report only expected 26,000 acre feet of water to be provided.

He also says Fort Collins water projections show the city has enough water already until the year 2000. On top of that, the city requires developers to provide water to the city for the new homes they build, he said. That provides an ever growing water supply for the city, he said.

Also, there are a lot of options not even considered by the dam backers, O'Brien said. Agricultural water could be reused, conservation could be used, Horsetooth Reservoir could be expanded or expansion of existing plains reservoirs could be considered, O'Brien said.

While the city has enough raw water, it needs improved storage, said Roger Krempe, Fort Collins public works director. The city is getting agricultural water as it grows over irrigated land, he said. However, that water is in a system designed for farmers, not city dwellers, Krempe said.

As Fort Collins grows, it will need storage that provides water all year, not just during the sum-

mer growing seasons, Krempe said.

The city has plans to build two smaller reservoirs, Sheep Creek and Rockwell to meet that problem, he said. If Grey Mountain were built, those two wouldn't be needed, he said.

Dam opponents are hitting hard on the cost of the project. Phipps and Bee insist it will cost about \$330 million. They say they got that figure by escalating the 1983 cost of \$116 million by current construction cost figures.

POP member opponent Tom McKenna said he also used construction industry figures and came out closer to \$500 million.

O'Brien said environmental and dam safety laws passed since 1963 would drive the cost up even higher.

"You're looking at a billion dollar project," claims McKenna. "A billion dollar boondoggle."

POP President Karen Waddell says her group isn't trying to stop anyone from using the Poudre water. But she said it could be captured with less cost and environmental damage in a plains or foothills reservoir.

O'Brien cites figures that show a local plains reservoir was dredged and improved to hold

about 2,500 more acre feet of water. That improvement cost about \$500 for each acre foot of water.

That compares with \$8,000 an acre foot for the new Grey Mountain water if the project cost \$330 million and provides 40,000 new acre feet.

Phipps contends that isn't a valid comparison. Grey Mountain would be a multipurpose project with power, flood control and water-management aspects not possible in a plains reservoir, he said. And without power, the taxpayers would have to pick up the cost of the project, he said.

Krempe agreed. "When you consider all the benefits, the price comes into line," he said.

Colorado State University civil engineering professor E.V. Richardson said the cost can be deceptive. Even though the 1983 showed it then wasn't economical, today it would be operating economically because of rising energy and water costs, he said.

The same could hold true for the Grey Mountain project in the future, Richardson said.

Richardson sits on the city water board and spends several months a year helping the Egypt-

tians manage water from the Aswan Dam. He said he studied the Grey Mountain project and concluded it eventually should be built.

No other project would be as versatile to the area, he said.

"That probably is the most logical project," Richardson said.

Fort Collins has enough water to meet a one-year drought like what occurred in 1977, he said.

"But if we had two more years of that, we wouldn't have any trouble getting people to want to build that project," said Richardson.

POP members say the project's biggest drawback will be the impact on the canyon. Waddell said not only will the two reservoirs affect the canyon, but there also will be related power plants, spillways, tunnels and road diversions.

Waddell notes the Poudre is the last Front Range river that would qualify for wild and scenic designation. It should be preserved, she said, if for no more than its aesthetic value.

Bee agrees that part of the river will be lost, but he says much of it will remain the same.

"I love that Poudre as much as anyone," said Bee. "but where else

can we go to build that project? We're not going to destroy that canyon. We're taking 8½ miles and 6½ miles. The rest of it will remain the same."

The two big reservoirs will provide more recreation than now exists in the same area of river, Phipps said. With the crowding of Horsetooth and Carter lakes, more reservoir recreation is needed, he said.

Canyon resident Fred Wrobbel agrees that more reservoir recreation is needed. He, however, believes it should be provided on

the plains or foothills. That way new recreation is created where none now exists, instead of destroying canyon recreation for flatwater recreation, Wrobbel said.

He says he can't believe a canyon reservoir would provide any more recreation than exists in the canyon now. He said he and his wife once counted 800 cars passing their house in Poudre Park in one hour.

One of the most direct benefits of the project would be to irrigators and water owners. Now, many small privately

owned reservoirs face millions of dollars in clean up and repair costs.

Most were built in the early 1900s and now do not meet federal and state safety standards. Others are filling with silt and have lost much of their capacity.

Waddell, O'Brien and others say the irrigators are pushing Grey Mountain so they will have an alternative to spending millions on their existing reservoirs.

"It's synonymous with pork barrel" said Jerry Mallett of the American Wilderness Alliance.

Opinions on dams' impact vary

GORDON PROCTOR
Of The Coloradoan
Third of a series

Opponents of the Grey Mountain project say it would be an environmental disaster, harming wildlife, destroying some of the most fished-in sections of Poudre River, and flooding the nicest parts of the canyon.

Dam backers, however, say it will inundate only two segments of the canyon, leaving the rest untouched.

A study by a group of Colorado State University wildlife researchers says the effects on wildlife will be severe if the Idylwilde reservoir is built.

Six wildlife biology doctoral students spent last spring semester examining what would happen to area wildlife if Idylwilde were built, said wildlife biology Professor Alexander Crington. They had enough time to study only one dam, as it was proposed in 1963, he said.

They found that probably no endangered species would be

harmed, he said. But much of the wildlife now in the canyon would be severely affected, Crington said.

The Idylwilde site near Kinrick is the wintering range for 250 to 300 bighorn sheep, he said. With that critical land gone, up to 75 percent of the herd eventually could die, he said.

The canyon is one of the few places in Colorado where bighorns can be seen by motorists, he said.

The students also found that up to 15 percent of the deer in the affected areas could be lost, he said. Inundating stream-bank cottonwoods would harm many of the non-game bird species, Crington said. Blue grouse also would suffer.

Mountain lions, bears, coyotes and predatory birds might suffer from a lack of prey, Crington said.

Those predictions alone may not be enough to halt the

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Grey Mountain: Fight for the Poudre

Impact

Continued from Page A1

project, Crington said. But, he said, the possible effects illustrate that the cost of the project would be more than just dollars and cents.

Francis Bee of the Larimer County Farm Bureau is seeking a feasibility study for the project. He agrees the project would have an environmental impact, but says that could be offset by the project's benefits.

"It will take a beautiful part of the canyon, I will say that," Bee said. "But we have to offset the advantages and the disadvantages."

The project will produce electricity and water, both of which

are important to humans, Bee said. And if a prolonged drought hit the area, the project could prevent a disaster, he said.

"We could be looking back and say, 'Oh, why didn't we do something?' Eventually we'll have a drought and we'll be wondering why we didn't build the project," Bee said.

The project could even benefit the canyon environment, according to Earl Phipps of the Northern Colorado Water Conservancy District. It could regulate stream flows below the dams, eliminating excessively high flows and supplementing the low ones, he said.

"It would be cleaner water than

you have there naturally," Phipps said. It also would provide two new reservoirs for fishing and boating, he said.

Bruce Berends of Preserve Our Poudre believes the dams would destroy much of the stream and fishing as it now is known. Not only would 13 miles of stream be flooded, he said, but other areas of the river would be affected by the power plants, tunnels and related constructions required for the project.

Berends and other Preserve Our Poudre members say reservoir recreation already is available throughout Colorado. The Poudre should be preserved so people can experience a free-

flowing river, he said.

Karen Waddell of Preserve Our Poudre said fluctuations in the reservoir levels would make them unattractive. They will have steep rock walls and often rings' from the water level lowering during irrigating seasons, she said.

Crington said the reservoir could provide fishing opportunities, although a healthy fish population would require extensive stocking.

It boils down to a value judgment between which is preferable, bait fishing from a reservoir bank or fishing in a free-flowing river, he said.

cont'd Next Page

Howard Lindholm, president of the Larimer County Farm Bureau, said the area's environment has been enhanced by the development of the Poudre.

The area would not be green if it were not for earlier water projects that made agriculture possible, he said.

"Actually, the Poudre River wasn't a fishing stream before it was developed. The water flow there is in good part because of the development that already has taken place," he said.

Each year, 45,000 acre feet of water is added to the river by diversions from other river

basins. Mountain reservoirs provide another water source for the Poudre.

But POP member John Wigdahl has a response for that argument.

"You know what I tell them when they say that?" he asked.

"I say, 'The Poudre wouldn't be what it is today without the water put into it. I give you credit for what you did. Now, don't destroy what you've done.'"

WEDNESDAY: Some changes might be made in the U.S. Forest Service's "wild and scenic" recommendation.

Canyon residents left with few options

Poudre Canyon residents are caught in the middle of the river controversy.

If they aren't in danger of being inundated by the reservoirs, the homeowners are likely to be affected if the federal government imposes "wild and scenic" designation on the river.

Many don't like either option.

Upper Canyon Association president Joyce Hildebrand said she favors designation only because she sees it as a way to stop the dams.

"I am highly opposed to the dams," she said. "I am one of the ones who would go under."

Wild and scenic designation is no panacea either, she said. She fears it will mean more government interference and will attract even more tourists into the already-crowded canyon.

"There is considerable feeling, like I have, that we have no choice. We are being pushed into a corner and we don't like either choice," she said.

When wild and scenic designation first was discussed two years ago, most of the 600 canyon residents were opposed to it, said Fred Wrobbel of the Lower Canyon Association. They feared the government would condemn their land for easements and put prohibitions on use of their property. They also were concerned the project would attract tourists who abuse the canyon, said Wrobbel.

But fear of the dams and assurances from the U.S. Forest Service have convinced many residents that they should support the wild and scenic designation, he said.

See OPTIONS, Page A7

Options

Continued from Page A1

He believes now the wild and scenic designation would bring little change to the canyon or the private land and would preserve it in its present state.

He also is strongly opposed to the dams. He and his wife have wanted a retirement home in the canyon since 1963, Wrobbel said. They have moved in and are putting finishing touches on their home in Poudre Park. Now, they face the possibility of someday having a reservoir lapping at their door.

Wrobbel said he probably could make a lot of money if the reservoir were built. His home would be just at the shoreline and he

could sell it for development, he said.

But he said he would rather have the canyon remain the same.

Canyon resident Bob Fithian fears property owners could end up with a dam and designation. Congress could impose wild and scenic designation but exempt portions of it to allow the dam, he said.

Then, some residents would be flooded and the rest will be left with further government restrictions, Fithian said.

He also said he didn't expect designation to make much difference in the canyon.

"My personal feeling is we're stifled with what we can do by

the government control we have," he said.

Canyon property owner Bruce Berends said he would favor wild and scenic designation even if Grey Mountain weren't proposed. He sees designation as having little impact on property owners, but thinks it will preserve the canyon.

He does see designation as another way of stopping the dams, a project he considers a boondoggle.

Berends is vehement against the dams saying they would benefit only the water interests, not people who appreciate the canyon. As one of Colorado's last free-flowing streams, it should be preserved, he said.

Forest Service may alter preliminary proposal

GORDON PROCTOR
Of The Coloradan
Fourth of a series

Some major changes could be made in the U.S. Forest Service's wild and scenic recommendation for the Cache la Poudre River.

While the Forest Service isn't ready to spell out any details, indications are that the preliminary recommendation of last April may be altered significantly. Since then, new wilderness legislation, new calls for water development, a new administra-

tion and new federal guidelines have been formed.

The final recommendation on the river is due in the first quarter of this year, said Ed Nesselroad, Forest Service spokesman. He would not specify what changes the Forest Service might make in its recommendation to give 67 miles of the upper river federal preservation protection.

But he said, "There will be changes."

Questions were raised about the economic impact of the proposed designation in a recently released

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study by Michael Eubanks, a Colorado State University master's candidate in forestry.

His 42-page report concludes that the Forest Service didn't follow federal guidelines closely enough in evaluating the economic impacts of precluding water

development, such as the proposed Grey Mountain dams.

"Preservation needs for the Poudre, such as stream recreation and high scenic values, are stressed, while water development needs receive little analysis," the report says.

Nesselroad said the Forest Service is going to give more consideration to economic impacts in its final report, but he declined to be specific.

U.S. Rep. Hank Brown, R-Colo., said he has met with the Forest Service and received the impression major changes are planned in the recommendation.

And Bob Berling of U.S. Water and Power Resources said the Forest Service has asked his agency for more data on potential

See PROPOSAL, Page A7

cont'd next page

Proposal

Continued from Page A1

water development and its economic impact.

In April, the service recommended giving 87 miles of the upper river special designation. Strict "wild" designation was recommended for the undeveloped upper segments of the Big and Little South forks.

More flexible "recreational" designation was proposed for segments along Colorado 14.

If Congress approves it, the designation will preserve the river much as it is now.

Since April, Congress and President Carter approved expanded wilderness areas for Larimer County. Most of the Big South Fork from Colorado 14 to the Rocky Mountain National Park boundary is included. Part of the Little South Fork from the confluence with the main stem upstream to near Rockwell Ranch are included.

Under the wilderness law, those sections would get much the same protection as under wild and scenic designation.

Nesselroad said he didn't know whether they would delete those sections from the wild and scenic proposal, since they already are protected. He said the law allows for both wilderness, and wild and scenic, designations.

While the Reagan administration promises more development-

oriented policies, Nesselroad said the November election will not directly affect the Forest Service's recommendation.

He said the study was ordered by Congress, under guidelines passed in the form of the national "wild rivers act."

Although environmentalists fear new Interior Secretary James Watt, he also should not have an effect on the study, said Nesselroad. The Forest Service is under the Department of Agriculture, not Interior, said Nesselroad.

Both sides in the Poudre River controversy are waiting for the final draft to see what changes are made.

Water groups favor not designating the main stem of the Poudre, to allow dam building.

They are reviving the Grey Mountain project, which would build two reservoirs and power plants in the canyon. The power plants would generate 274 megawatts of power.

Francis Bee is a leader among those proposing a feasibility study. He said his group would not object to designation of the north and south forks, if the main stem were left undesignated.

Designating the river would "lock it up," preventing development even if it is needed, he said.

But a group called Preserve Our Poudre wants more of the

river designated than what the Forest Service earlier recommended. The recommendation extends from the national park boundaries in the mountains down to the eastern national forest boundary near Poudre Park.

It wants that lower section from the canyon mouth to the forest service boundary included.

Karen Waddell of Preserve Our Poudre said the Poudre should get designation because it epitomizes the local "quality of life."

"Maybe you can't compare it to a Hell's Canyon or a Grand Canyon, but it is the most outstanding on the whole Front Range," she said.

It also represents many people's motivation for moving to Colorado, said John Wigdahl of Preserve Our Poudre. Fishing, hiking, camping and scenery are what make the area attractive, he said.

While proponents say water and power from the dams will become valuable in the future, Waddell argued that saving it as a free-flowing undeveloped stream will become more important in future years.

Thursday: The Colorado General Assembly may be the next battleground for the Grey Mountain project.

Legislative fight looms over Poudre study

GORDON PROCTOR
Of The Coloradoan
Last in a series

Grey Mountain: Fight for the Poudre

The first fight over the future of the Poudre River is likely when the state legislature considers a bill to fund a study for the Grey Mountain project.

Rep. Walt Younglund, R-New Raymer, plans to introduce such a bill. He said it will look at alternatives to Grey Mountain, but it will be "aimed mainly at getting the dam built."

That is exactly what river preservationists are trying to stop.

Karen Waddell of Preserve Our Poudre said she plans to be there when the legislature takes up the issue.

She wants to make sure any study looks at ways of using the Poudre River without having to dam the canyon.

"I want it to seriously look at alternatives," she said.

Younglund's bill is being prepared and should be introduced in about two weeks. He said he decided to introduce it after the Colorado Water Conservation Board this week unexpectedly dropped

consideration of a study for at least several months.

The Northern Colorado Water Conservancy District had requested a \$500,000 loan for the study. The state water board postponed any decision because the board was swamped with requests, said David Walker of the board.

It wants to develop guidelines for considering requests before it considers any more, said Walker.

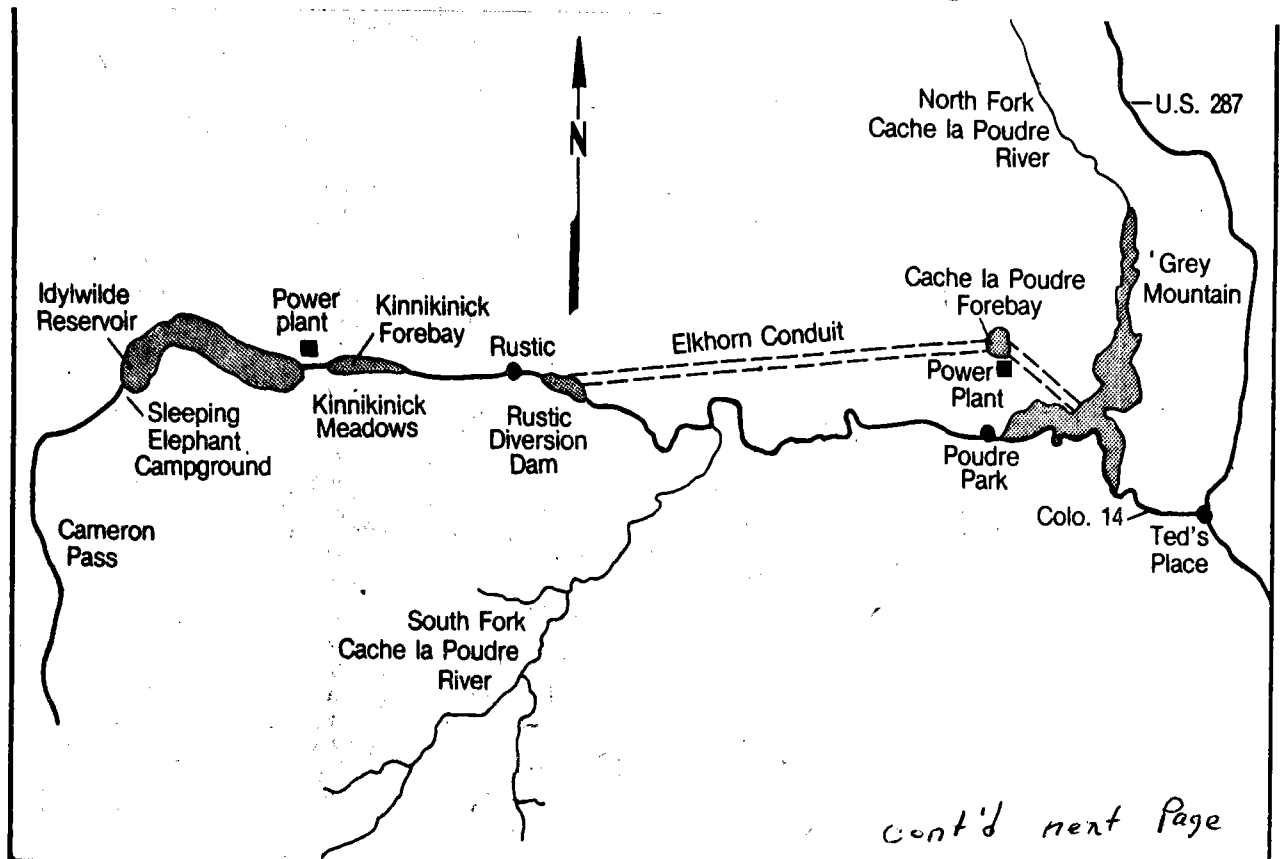
Younglund said he has supported building Grey Mountain for many years. He also said Color-

ado should get into the dam-building business because it can't count on the federal government anymore.

The Carter administration killed several Colorado water projects. How President Reagan's tight money policies will affect Colorado projects remains to be seen.

Colorado can withstand a one-year drought, but a prolonged one would be a "catastrophe" for the state unless it builds more water storage, said Younglund.

See STUDY, Page A7



cont'd next page

Study

Continued from Page A1

"What do you think would happen if some day 100,000 people on the Front Range got up and turned on the shower and nothing came out?" he asked. "The sad thing is most people don't know where their water comes from."

Grey Mountain is attractive because it would combine water, power and recreation all in one site, Younglund said.

As proposed, the project would build two Horsetooth-size reservoirs in the canyon. It also would provide 274 megawatts of electric power.

Younglund said details need to be worked out about who will do the study and its scope.

A chorus of calls for a Grey Mountain study have arisen in the past year. The Larimer County Farm Bureau, the Cache La Poudre Water Users, the Fort Collins Area Chamber of Commerce and other groups have called for a study.

The Larimer County commissioners and the Fort Collins city council called for an area study, but deleted from their resolutions any mention of Grey Mountain. They want a study showing what the area's long-term water needs will be and how they could be met.

Fort Collins water attorney Ward Fischer said a study needs to be done before either development or preservation can be discussed intelligently.

"You can't consider one with-

out the other, and you can't consider either until you have a study that considers both," he said.

Waddell said she has no objection to a study of the area, what its water needs will be and how they will be met. She would object if the study is done just to justify the Grey Mountain project.

No study should be done at all until Congress makes a decision whether to give the river federal "wild and scenic" designation, said Jerry Mallett of the Denver-based American Wilderness Alliance.

Designation could preclude any dams, he said. If that happens the study money could be wasted, he said. Mallett said his group plans to testify when the study is considered.

Fort Collins Water Board members George Wallace and Henry Caulfield also have said any study should be broad. They said such a study might find alternatives that a specific-site study may not consider.

POP members have said plains reservoirs or foothill sites could be alternatives to Grey Mountain.

Bob Berling of the U.S. Power and Water Resource Service said any study is likely to conclude that Grey Mountain is the best project.

"Out of the whole Front Range, we don't see a better resource opportunity," he said. "It's kind of surprising there isn't a project there already."

Berling said he has thought

about alternatives, but doesn't see any countermeasures offering all of Grey Mountain's benefits.

"I guess I'm already screening in my mind, but I doubt that you would find much," he said.

E.V. Richardson, a Colorado State University civil engineering professor and a city water board member, said he also has considered the project and thinks it probably is the best choice for the area.

Richardson said, however, he doesn't see any need to hurry.

"I'm not so anxious about this year or next, but in the next four or five years we'll need a Front Range study," he said.

Fort Collins hydrologist Jim O'Brien disagrees that a study would show Grey Mountain would be best. Instead, he said the project can't even be built today because of new environmental and dam safety laws passed since it was last considered in 1963. A study would show, however, that a scaled-down project would be feasible, said O'Brien.

Earl Phipps of the water district said any designation decision should be postponed until the study is done. Water groups also have urged the Forest Service to delay action.

Premature designation could "lock up" the river before it can be known whether it ever will be needed for development, said Francis Bee of the Larimer County Farm Bureau.

2-25-1981

Normal, wet spring just around corner, forecasters insist

By **DON KIRKMAN**
Scripps-Howard Staff

WASHINGTON — The National Weather Service says the pernicious weather pattern that caused one of the worst winter droughts in history has broken up and the nation should get a normal dose of spring rains.

"We're now seeing a major change in the country's weather pattern and we're delighted," NWS hydrologist Allen Flanders said. "We can't say the drought is over, but it's badly injured."

From mid-December on, the nation's weather was dominated by a huge dome of high pressure centered over the Rockies and extending from the Mexican border to central Canada.

As a result, winter storms that normally move into the country from the Pacific and the Gulf of Mexico were deflected from their normal tracks and much of the country dried out.

Stream and river flows from the high Plains through New England shrank alarmingly and, in the hard-hit Eastern states, reservoirs diminished to as low as 18 percent of normal capacity. The Mississippi River at Memphis recorded one of its lowest levels in history and the Missouri River Basin slowed to a trickle.

Chief long-range forecaster Donald Gilman of the NWS said the high-pressure dome over the Rockies began breaking up two weeks ago to allow the series of sopping wet storms that have moved across the country in rapid succession.

Most sections of the nation received about 6 inches of rain, Flanders said, half of what they needed to refill their reservoirs. If the rain pattern continues another two to four weeks, the nation's water supplies will be in good shape, he said.

"We still have problems in Colorado, Kansas, Oklahoma, Arkansas and the Missouri Valley," he added. "But with the old weather pattern broken, these states, too, should see their rivers refill rapidly."

What's happening now, Gilman explained, is a "sloppy weather regime," in which moisture-laden storms from the Pacific and Gulf are alternately driving across their normal late winter and early spring paths.

Water Rights Conditional, Court Decides

By Associated Press

A special water judge appointed by the Colorado Supreme Court has ruled that individuals and corporations may lay claim to millions of acre-feet of water locked in underground rock formations throughout the state.

The landmark ruling, however, was qualified in several ways. Persons laying claim to such water must own the land or have permission of the owner to develop the water, the judge said, and they must demonstrate that they can put the water to immediate beneficial use.

The ruling was a smashing setback for Denver lawyer-geologist John Huston and others who more than two years ago filed applications for rights to a staggering 1.5 million acre-feet of deep, bedrock water throughout Colorado. Rights to use of that water would be worth untold millions of dollars.

While the decision holds that underground, non-tributary water can be appropriated or claimed, it also lays down guidelines for those who seek to do so.

In his ruling, Judge Marcus O. Shivers, the special water judge, specifically dismissed many of the applications filed by Huston and the others, and referred the rest back to the state's District Water Courts for final judgment under his guidelines.

IN MOST of the cases involving Huston, he and his partners don't own the land or have the permission of the owners to develop it, so their claims are invalid, the court ruled.

The conditional water rights applications were filed late in 1978 by Huston and his partners, two corporations and a southeastern Colorado farmer. The cases quickly were moved to the Colorado Supreme Court after objections were filed by several water conservancy districts and others.

The Supreme Court appointed Shivers, then a judge in the District Court in Littleton, as a special water judge with authority to rule in cases from all seven of the District Water Courts in the state.

The Supreme Court specifically instructed Shivers to decide certain unprecedented constitutional issues involved in the applications. All previous Colorado water law had applied to claims for rights to surface water, or water connected with surface water, under the doctrine of prior appropriation — the first person to claim water had rights to it so long as it could be put to beneficial use.

Shivers' ruling in the case was dated Feb. 11.

THE CENTRAL constitutional question before Shivers was whether valid claims could be made to rights to what is called non-tributary underground waters, those that don't flow or feed streams, rivers or lakes. "This question is answered in the affirmative," Shivers wrote in his ruling.

The Legislature has recognized through laws that non-tributary groundwater can be appropriated in specific groundwater basins, Shivers said. "It is then further concluded that non-tributary water outside a designated groundwater basin must likewise be appropriable," he said.

Persons seeking to remove water from deep, bedrock formations and other non-flowing underground sources want essentially to withdraw or extract a resource in a way "similar to a mining operation," Shivers said. "In effect, they develop or mine, rather than intercept," he said.

To drill and equip a water well, one must in almost all cases be engaged in construction upon private property, the judge said. He went on to cite a provision of the Colorado Constitution: All persons shall have a right-of-way across private lands for the construction of ditches, canals and flumes for conveying water.

"This does not grant a right to take land to drill and construct a well, to develop a well, or to excavate on private real property," Shivers said.

Irrigation ditch classification weighed

DENVER — The Water Quality Control Commission is considering the possibility of classification of irrigation ditches and setting numeric limits for constituents in the water in those ditches.

The commission has received specific petitions to classify the waters in certain irrigation ditches, and before it acts on these petitions it solicits general reviews on the legal and practical implications of classifying irrigation

ditches.

On March 2, the commission will conduct an informational hearing as the last item on the regular meeting agenda on classification of irrigation ditches. That hearing will be in Room 150 of the Colorado Department of Health Building, 4210 E. 11th Ave., Denver.

If the commission decides there is a need to classify and set numeric limits

(standards) for irrigation ditches, it also must determine which ditches need classifying and under what circumstances certain irrigation ditches must be classified and which standards need to be applied.

Interested persons are requested to submit written comments, if possible, and to verbally summarize these at the hearing.

Verbal comments will be allowed, although the commission may limit the length of each presentation in the interest of fairness to all

concerned. The commission will consider all comments, verbal and written, and will confer with other state agencies in formulating a policy to consider petitions for classifying uses and setting standards for irrigation ditches.

The commission does not intend to consider additional comments after the close of the hearing. However, if the commission finds that there are compelling reasons, it may accept written comments for an additional period.

Local water officials pleased with decision 3-1-81

By MARY EHRMANTRAUT
Tribune Staff Writer

Northern Colorado water experts Saturday welcomed Judge Marcus O. Shivers' decision to restrict rights for Colorado water sealed in underground rock formations.

"This is good news," said W.D. Farr, chairman of the Greeley Water-Sewer Board. "It's the kind of decision we wanted — and when I say we, I mean most people in the state.

"This water should be developed only for specific purposes. It's not for someone to exploit, to take the money and go," Farr said.

Farr compared the underground water development to a mining operation. Like materials mined from underneath the earth's surface, he said, "This water resource is not rechargeable — once it's pumped out, it's gone."

Under the ruling, applicants who intend to develop the water must own the land or obtain permission from landowners where the water resources lie. They also must show an immediate, beneficial use for the land.

"It sounds like a favorable decision for the water users of the state," said

Earl Phipps, manager of the Northern Colorado Water Conservancy District. Phipps, interviewed by telephone at his Fort Collins home Saturday night, said he is pleased the decision definitely specifies conditions under which the water can be developed.

Greeley water attorney Tom Aron said he is pleased that the ruling recognizes existing state law. After all, he said, "That's the way the legislature set it up."

"There's one backside to this ax," Aron said. Because the federal government owns about 35 percent of Colorado land, "maybe they'll benefit by this."

Aron and Phipps believe John Huston will take the issue to the Colorado Supreme Court.

"That's not the last answer on this," Aron predicted. The decision represents a major setback for Huston, a Denver lawyer-geologist who has applied for some 1 million acre-feet of underground water rights.

"He claimed water under thousands of acres of land," Farr said. He too is pleased that Shivers' ruling upholds the requirement of ownership or permission before the water can be developed.

Judge rejects water claims

DENVER (AP) — A special water judge appointed by the Colorado Supreme Court has ruled that individuals and corporations may lay claim to millions of acre-feet of water locked in underground rock formations throughout the state.

The landmark ruling, however, was qualified in several ways. Persons laying claim to such water must own the land or have permission of the owner to develop the water, the judge said, and they must demonstrate that they can put the water to immediate beneficial use.

The ruling was a smashing setback for Denver lawyer-geologist John Huston and others who more than two years ago filed applications for rights to a staggering 1.5 million acre-feet of deep, bedrock water throughout Colorado. Rights to use of that water would be worth untold millions of dollars.

While the decision holds that underground, non-tributary water can be appropriated or claimed, it also lays down guidelines for those who seek to do so.

In his ruling, Judge Marcus O. Shivers, the special water judge, specifically dismissed many of the applications filed by Huston and the others, and referred the rest back to the state's District Water Courts for final judgment under his guidelines.

The conditional water-rights applications were filed late in 1978 by Huston and his partners, two corporations and a southeastern Colorado farmer. The cases quickly were moved to the Colorado Supreme Court after objections were filed by several

water conservancy districts and others.

The Supreme Court appointed Shivers, then a judge in the District Court in Littleton, as a special water judge with authority to rule in cases from all seven of the District Water Courts in the state.

The Supreme Court specifically instructed Shivers to decide certain unprecedented constitutional issues involved in the applications. All previous Colorado water law had applied to claims for rights to surface water, or water connected with surface water, under the doctrine of prior appropriation — the first person to claim water had rights to it so long as it could be put to beneficial use.

Shivers' ruling in the case was dated Feb. 11. It was printed this past week and mailed Friday to the Supreme Court and attorneys involved in the case. The Associated Press obtained a copy of the ruling Saturday.

None of the principals in the case could immediately be reached for comment.

The central constitutional question before Shivers was whether valid claims could be made to rights to what is called non-tributary underground waters, those that do not flow or feed streams, rivers or lakes. "This question is answered in the affirmative," Shivers wrote in his ruling.

The Legislature has recognized through laws that non-tributary groundwater can be appropriated in specific groundwater basins, Shivers said. "It is then further concluded that

See JUDGE, page A6

☆ Judge

non-tributary water outside a designated groundwater basin must likewise be appropriable," he said.

"It is the opinion of this Court that although the drafters (of the Colorado Constitution) were limited in knowledge at that time to perhaps surface flows and shallow well information, they, nevertheless, intended subjectively to state that 'all' of the waters of the State of Colorado, wherever located, are to be protected by the Constitution, are the property of the public, and dedicated to the use of the people of the state....," Shivers wrote.

Persons seeking to remove water from deep, bedrock formations and other non-flowing underground sources want essentially to withdraw or extract a resource in a way "similar to a mining operation," Shivers said. "In effect, they develop or mine, rather than intercept," he said.

To drill and equip a water well, one must in almost all cases be engaged in construction upon private property, the judge said. He went on to cite a provision of the Colorado Constitution:

All persons shall have a right-of-way across private lands for the construction of ditches, canals and flumes for conveying water.

"This does not grant a right to take land to drill and construct a well, to develop a well, or to excavate on private real property," Shivers said.

To construct a well and pump water, he said, "one must have the consent of the landowner, or be the landowner, in order to conduct the necessary construction involved."

Under Colorado water law, a person claiming water must put it to what is called beneficial use. Shivers ruled that the beneficial use must be "at hand" and an "actual need."

SUNDAY, MARCH 11, 1981

"The application cannot merely argue maximum use or general need in some unknown area not even limited to the state boundaries of the State of Colorado," Shivers said.

In addition to Huston and his partners, the water-rights applications on which Shivers was ruling were filed by Nedlog Technology of Arvada, Colorado Pacific Aztec-Colorado Pacific Energy of Colorado Springs and Bob Johnston Jr., a Pueblo-area rancher.

Gov. Richard Lamm two years ago referred to the legal issues involved in the applications as "a time bomb in our Constitution that has been ticking away." The State Engineer estimated that the water involved in the applications would be worth a minimum of \$150 million a year.

Objections from water districts, the state, the federal government and others were filed almost as soon as knowledge of the applications surfaced.

The lion's share of the applications was filed by Huston, who sought rights to 1.3 million acre-feet of water a year. An acre-foot is 325,850 gallons, enough water to cover one acre to a depth of one foot. Huston said later the water would be used, among other things, for hydroelectric plants and irrigation of crops to be grown for gasohol production.

Shivers dismissed the Huston group's applications to tap water stored in pockets behind piles of material left behind by glaciers. He said that withdrawing such water would affect those with prior rights to surface water.

Sun., March 1, 1981, Denver, Colo.

Water judge rules against geologist Huston

Associated Press

A water judge appointed by the Colorado Supreme Court has ruled that individuals and corporations may claim millions of acre-feet of water in underground rock formations throughout the state.

The landmark ruling, however, was qualified in several ways. People laying claim to such water must own the land or have permission of the owner to develop the water, the judge said, and they must demonstrate they can put the water to immediate beneficial use.

The ruling was a setback for Denver lawyer-geologist John Huston and others who more than two years ago filed applications for rights to 1.5 million acre-feet of bedrock water throughout Colorado. Rights to use of that water would be worth millions of dollars.

While the decision holds that underground, non-tributary water can be appropriated or claimed, it also sets guidelines for those who seek to do so.

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The conditional water rights applications were filed late in 1978 by Huston and his partners, two corporations and a southern Colorado farmer. The cases quickly were moved to the Colorado Supreme Court after objections were filed by several water conservancy districts and others.

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in cases from all seven District Water Courts in the state.

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The General Assembly has recognized through laws that non-tributary groundwater can be appropriated in specific groundwater basins, Shivers said. "It is then further concluded that non-tributary water outside a designated groundwater basin must likewise be appropriable.

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To construct a well and pump water, he said, "one must have the consent of the landowner, or be the landowner, in order to conduct the necessary construction involved."

Under Colorado water law, a person claiming water must put it to what is called beneficial use. Shivers ruled that the beneficial use must be "at hand" and an "actual need."

"The application cannot merely argue maximum use or general need in some unknown area not even limited to the state boundaries. . . ." Shivers said.

In addition to Huston and his partners, the water rights applications on which Shivers was ruling were filed by Nedlog Technology of Arvada, Colorado Pacific Aztec-Colorado Pacific

(Continued on page 48) next page

Water ruling viewed as setback to Huston

(Continued from page 32)

Energy of Colorado Springs and Bob Johnson Jr., a Pueblo area rancher.

Gov. Richard Lamm two years ago referred to the legal issues involved in the applications as "a time bomb in our constitution that has been ticking away." The state engineer estimated water involved in the applications would be worth at least \$150 million a year.

Objections from water districts, the state, the federal government and others were filed almost as soon as the applications surfaced.

Most of the applications were filed by Huston, who sought rights to 1.3 million acre-feet of water a year. An acre-foot is 325,850 gallons, enough water to cover one acre to a depth of one foot. Huston later said the water would be used, among other things, for hydroelectric plants and irrigation of crops for gasohol production.

Shivers dismissed scores of applications Huston had filed for water deep under the southeast Colorado plains because they did not meet the guidelines he had promulgated in addressing the constitutional issues. In particular, he cited a lack of ownership or permission to use surface lands and ruled the water was being sought for profit rather than for beneficial use.

Shivers dismissed the Huston group's applications to tap water stored in pockets behind piles of material left by glaciers. He said withdrawing such water would affect those with prior rights to surface water.

He also dismissed applications filed by Huston to rights for water along the Front Range now left over or unconsumed at existing well sites or flowing back toward rivers and streams after use. Shivers denied those applications because the surface landowners weren't notified of plans to use the existing wells or hadn't granted access to their property to retrieve it.

Colorado Pacific Aztec had applied for rights to more than 10,000 gallons of both tributary and non-tributary water from 56 wells.

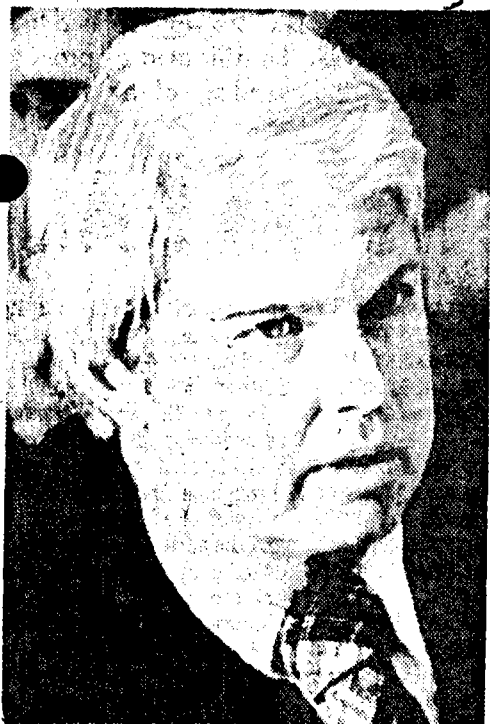
Shivers noted the problems of separating tributary and non-tributary waters when both are drawn from the same well, and referred the applications back to the District Water Court to decide that question and whether there was a real intention and method of putting the water to beneficial use.

One application by Colorado Pacific Aztec was to use the water in a coal-slurry pipeline. Under Colorado law, water can be appropriated for use outside the state only if it goes to other states that would give credit for the water to Colorado under agreements for distribution of river waters.

"This court holds . . . the water court is without jurisdiction to enter conditional or other decrees concerning water for such use (slurry pipelines) until all preliminary action regarding the compact, and the compact state involved, have been completed," Shivers wrote.

Lamm 'guesses' water rights decision good for Colorado

By BARBARA HADDAD RYAN
News Staff



NEWS FILE PHOTO

Gov. Richard Lamm
'A lot of water-users hit the roof'

Stressing that he had only newspaper accounts to go by, Gov. Richard Lamm said Sunday he'd "hazard a guess" that the decision in a major court case on state water rights "is very much in Colorado's interest."

Press reports came out last weekend on special water Judge Marcus Shivers' ruling that individuals and corporations may claim underground, non-tributary water, but only under certain conditions. Shivers said they must own the land or have the landowner's permission, and they must put it to immediate beneficial use.

The case grew out of applications filed in 1978 for rights to 1.5 million acre-feet of water (an acre-foot is 325,850 gallons) in underground rock formations.

Rights to nearly 1.3 million acre-feet were sought by John Huston, Denver lawyer and geologist, and his partners; Nedlog Technology Group of Arvada; Colorado Pacific Aztec and Colorado Pacific Energy of Colorado Springs;

and Pueblo County rancher Bob Johnston Jr. Shivers dismissed some applications and sent others to district water courts for rulings that meet his guidelines.

Lamm recalled that "a lot of water-users hit the roof — it was very upsetting" when the applications were filed. The Colorado Supreme Court appointed Shivers, a water law expert and at the time chief judge of the Littleton District Court, to rule in cases from the state's seven district water courts.

Shivers' decision makes a basic contribution to Colorado water law in declaring that claims may be made to rights to self-contained underground water. Existing law on such rights refers only to surface water in lakes, rivers and streams, or water leading to it.

The decision "helps set guidelines on groundwater," Lamm said. He added: "Groundwater law is an interesting amalgam of mineral law and water law. The fact that a landowner has water going through his land isn't important — who's appropriated it is important."

Huston claims victory in water ruling

DENVER (AP) — John Huston, two Colorado corporations and a southeastern Colorado rancher. Rights to that water would be worth billions of dollars and could affect municipal, industrial and agricultural development throughout the state.

A special water judge last week dismissed Huston's applications for rights to that water, but Huston said Monday he will pursue his claims.

"We need that water and we are going to go for it," Huston said.

At issue are rights to more than 1.5 million acre-feet annually of water claimed by

called non-tributary underground water.

All previous Colorado water law had applied to surface water or to underground water that connects or flows into such surface water as streams and rivers.

No one had tried before to claim non-tributary underground waters in deep, bedrock formations and other locations, and Shivers ruled that such claims can be made.

Shivers, however, dismissed the applications filed

by Huston and the others involved in the case.

Claims to such water can be made only by the person owning the land above it or a person with the landowner's permission to develop the water, Shivers said.

He also ruled that the person claiming such water must have at hand an actual beneficial use to which to put the water. The beneficial-use standard is a basic requirement for claiming water in Colorado and most western states.

It was on the land-

ownership and beneficial-use requirements that Shivers dismissed the applications filed by Huston, a Denver lawyer and geologist.

Huston said he had not yet decided whether to appeal to the Colorado Supreme Court those portions of Shivers' ruling or the judge's dismissal of his water-rights applications. Those applications sought rights to more than 1.3 million acre-feet of water a year.

"I don't think we agree with him on the way he applied the appropriation

doctrine," Huston said. "We are going to pursue these appropriations."

Huston characterized as "unusual" and "novel" the land-ownership requirement laid down by Shivers. Rather than challenge it in court, however, Huston said he might simply seek permission of landowners to develop the water he is seeking.

"We have been working with landowners," he said. "We have some commitments."

State Weighs Phipps Water Permit Dispute

3-5-81

BY BILL McBEAN

Denver Post Staff Writer
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In an unprecedented action, the Colorado state engineer has put into motion legal machinery which will result in his affirmation or cancellation of \$8 million worth of water-well permits held by a member of one of Denver's most powerful families.

The permits, taken out in 1976 by Lawrence C. Phipps III, control water from four wells on the Highlands Ranch in northern Douglas County. The water is being sold to the Willows Water District under a long-term contract.

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The co-personal representatives to which he referred are Lawrence Phipps III and his half uncle, Gerald Phipps. Richmond contends in a lawsuit against Lawrence, Gerald and others that Phipps 1527 was established to keep her and other heirs from sharing in proceeds from the sale of water.

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Richmond Phipps contends in her lawsuit that her brother, half uncle and two other partners in Phipps 1527 will earn more than \$8 million from the four wells over the 65-year term of the

Continued on page 3.

**Sale of water a central issue
in estate dispute. Pg. 52, sec. E.**

cont'd next page

Colo. Aide Weighing Phipps Well Dispute

FROM PAGE 1

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Richmond, who lives in Costa Rica and is the vice president of an agricultural chemicals company, has the other members of her family tied up in legal confrontations on four other fronts:

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Legal Fight Looms Over Water Wells

BY BILL McBEAN

Denver Post Staff Writer

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State Weighs Water-Sale Issue

FROM PAGE 1

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It's Back to Square 1 on State's Water Law

Continued from page 1.

posed to do? This decision says all you have to do is gain access to a piece of property to stick in your straw and after that, it's up for grabs."

Danielson and the state of Colorado plan to appeal Shiver's ruling to the Colorado Supreme Court. Until then, it will be business as usual as far as the granting of well permits goes.

Danielson, who is the state official responsible for issuing well permits, said, "I'll give them what water is under their land."

"If someone wants to sue me, I'll tell them to come in and we'll help them fill out the forms. They can join the other 320," he said in reference to the number of active lawsuits against the engineer.

Danielson isn't too enthusiastic about putting the Shivers ruling into effect immediately because, for one reason, it holds a large potential to damage existing well permit holders.

The engineer uses the Mission Viejo Co. Highlands Ranch project as an example.

Mission Viejo recently obtained permission from the state water court to drill 15 wells on the Highlands Ranch

property in northern Douglas County. The ranch eventually will contain homes for 90,000 persons.

In the past, well permits have been tied to cylinders of influence. A well drains water in a wide circle around the well-shaft, Danielson said. Current law says both the well and the cylinder of influence must be on property owned by the permit holder.

Danielson asks rhetorically: What if someone drilled wells all around the Highlands Ranch property line? Although the cylinders of influence would reach into Mission Viejo's property and thus take water the company planned on using, the wells would be legal according to Shivers ruling.

"I'm sure Mission Viejo must be wondering if those wells of theirs are worth anything at all now," Danielson said. "Under the Shivers ruling, anyone drilling the wells around the border of the Mission Viejo property could dry the Mission Viejo wells up."

That possibility isn't without irony.

Both the state and an organization of Arapahoe County well owners fought hard against Mission Viejo in Greeley Water Court to prevent the giant homebuilder from being allowed to drill the 15 wells.

The private well owners introduced testimony indicating groundwater levels in Arapahoe and Douglas Counties have fallen 100 to 200 feet in recent years. They argued the Mission Viejo wells would make the water table drop still further, forcing the well owners, at huge expense, to drill new wells.

This, the well owners argued, constituted "material injury" to them and, therefore, shouldn't be allowed.

The water court didn't agree, and allowed Mission Viejo to proceed. The private well owners were told they could file civil suits against Mission Viejo if they so desired.

Vicki Fowler, assistant attorney general, said the state's Supreme Court appeal of the Shivers ruling will be based on arguments very much like those originally presented to the special water judge in the case.

"We took the position that the state constitution is silent as to non-tribu-

tary water, leaving the Legislature free to act," Fowler said.

The constitution, she said, speaks only to waters in a natural stream, such as the South Platte River. In the case of natural streams, the right to withdraw water from a river is based on a priority system dating back to the last century. It is called the "first in time, first in right" theory of appropriation.

The state contends the Legislature should have the right to regulate non-tributary underground water because that water isn't mentioned in the constitution.

In his ruling, however, Shivers says he is convinced that the framers of the constitution "subjectively" meant to include all Colorado waters, be they surface or underground.

The Shivers ruling, if upheld by the Supreme Court, would mean ground water is subject to appropriation in the same manner as surface streams.

Ruling Leaves State Water 'Up for Grabs'

BY BILL McBEAN
Denver Post Staff Writer

Colorado law controlling underground water is back to square one.

That is how Jeris Danielson, the Colorado state engineer, reads the ruling handed down last month by Special Water Judge Marcus O. Shivers Jr.

Shivers was instructed by the Colorado Supreme Court to decide a number of crucial questions about the state's water law, including the claims of Denver lawyer and entrepreneur John Huston.

Huston sent thousands of private water-well owners into a virtual panic last year by claiming underground water belongs to the public. He claimed the right to use any underground water not now being put to beneficial use by the well owners.

Shivers' ruling said anyone who owns land, or has an owner's permission to use a piece of land, may drill a well and take as much water as he can pump — as long as that water is put to immediate beneficial use such

as for irrigation, livestock watering or municipal use.

Danielson, in an interview last week, said he thinks Shivers' ruling, in some ways, favors Huston's outlook. The ruling, he said, takes underground water law back to the time before the Legislature passed Senate Bill 213 in 1973.

That law guarantees landowners the right to use water under their land as long as the water is withdrawn slowly enough to guarantee a 100-year life for the aquifer and as long as the use of one man's well doesn't cause material harm to another man's underground water rights.

Shivers' ruling, Danielson says, runs contrary to Senate Bill 213 without declaring the law unconstitutional.

Senate Bill 213 was passed after it became obvious that non-tributary ground water — deposits of water not replenished by a stream — is a finite resource heavily in demand along the Front Range.

"Its a real dilemma for me," Danielson said. "What the hell are we sup-

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'Just Look', Heights Sewer Violations Obvious—Engineer

By GARY LONG
Times Staff Writer

The sewer system in Morgan Heights is so inadequate it isn't necessary to look at the records to find actual violations of state law; "all you have to do is look on the ground," a professional engineer and expert witness told Morgan Heights developer Rainsford Winslow Tuesday in District Court here.

Winslow is being sued by 18 Morgan Heights landowners who claim the sewer and water systems in the subdivision not only are inadequate, but that Winslow has reneged on his promise that the systems would be owned and operated by the residents of the Morgan Heights.

Winslow is defending the lawsuit himself, with assistance from Fort Morgan attorney George Reddin, having entered his appearance on a "prose" (for himself) basis.

And District Judge James R. Leh, who is presiding, has permitted Winslow to cross examine witnesses in the class action lawsuit over the objections of Denver attorney Robert J. Dyer III, who is representing the landowners.

Key testimony was given Tuesday afternoon by LaVerne Nelson of Nelson Engineering in Greeley, who was certified as an "expert witness." Nelson was hired last summer by the Morgan Heights Landowners Association to do an engineering study of alleged problems with the sewer, water, drainage and road systems in Morgan Heights.

Under questioning from Dyer, Nelson concluded, "My opinion is that from an engineering standpoint, I have seen little evidence of any planning (in Morgan Heights) and we have looked for it."

Earlier, Nelson had testified he was hired to conduct the engineering study and propose a plan to bring the water, sewer drainage and roads systems in Morgan Heights up to what is generally accepted as "adequate."

The resulting plan was completed in February and it has been accepted as evidence in the trial. Among the findings:

—The water system in the subdivision is inadequate to meet the maximum one-hour demand for water, primarily because the water lines are too small, taps on the lines are too large and there is no water storage to assure adequate water pressure at times of peak demand.

—The water system was never disinfected in violation of State Health Department regulations, and no variance was ever issued to permit the system to operate without being disinfected.

—The sewer system, which utilizes a septic tank capable of serving 18 homes, discharges into a leech field capable of handling the equivalent of 18 homes. "The system is totally inadequate and there was waste on the surface (near the leech field)," Nelson said. At the time of the study there were 10 homes on the system; now there are 13.

—The remaining homes in the subdivision have individual septic tanks, also in violation of State Health Department regulations because lot sizes in Morgan Heights are small enough to give the area a population density of more than 5,000 people per square mile, the standard above which septic tanks are not allowed.

"In my opinion," Nelson said, "many of these lots are too small for septic tanks. They're too close to one another and we get soil saturation — what happens is we get leeching onto the surface."

The study proposes \$290,000 to bring the water system up to adequate standards and \$310,000 to bring the sewer system up to standard. Improvements suggested for the water system include new, larger diameter waterlines, four new wells, a storage tank and a standby power system for emergencies.

Nelson said the accepted standard takes into account two things. The system should be capable of meeting the maximum hourly demand and should be capable of meeting the average daily consumption in the event the water supply is cut off.

And he said the system as it now exists can do neither. Additionally, the system is not "looped," meaning that if there were a break in the system, water service would be shut off to all homes on the system.

Improvements proposed for the sewer system include settling ponds and an enclosed treatment plant capable of serving all homes in the subdivision and which could be expanded as more homes are built.

During cross examination by Winslow Dyer made numerous objections to Winslow's method of questioning and most of the objections were sustained by Leh.

"We have a tweedle dee and tweedle dum situation here your honor," Dyer objected at one point. "I objected to Mr. Winslow appearing pro se and I respect the court's decision. But now Mr. Reddin is feeding questions to Mr. Winslow."

Dyer said his objection to Winslow's appearance "pro se" is that if Winslow is going to represent himself, he should represent himself. But if Winslow is going to retain an attorney, then the attorney should represent Winslow.

Winslow has said Reddin hasn't had time to become sufficiently familiar with the case and that in some areas Winslow is better acquainted with the issues and so should be allowed to question witnesses.

Other testimony Tuesday came from Morgan County Water Commissioner Robert Samples, who testified about the capacity of the four Morgan Heights wells, water rights owned by Winslow in the Riverside Irrigation District and Winslow's membership in the Ground Water Appropriators of the South Platte.

Winslow owns two shares in the Riverside, entitling him to 32 acre-feet of water each year. Winslow said he has always rented the water and has relied upon his membership in GASP for groundwater recharge of the wells.

But Samples pointed out that the wells in Morgan Heights have been part of the GASP system dating after June 30, 1972, meaning the wells are class B wells and Winslow must replace 100 percent of the wells' depletion.

The system has been operating on the assumption the wells became part of GASP before June 30, 1972, meaning Winslow had to replace only five percent and GASP did the remainder.

However, it was pointed out that Winslow has submitted a proposed water augmentation plan to Samples. But it appeared Winslow will have to utilize the Riverside water for groundwater recharge.

Testimony is to continue through the rest of the week with appearances scheduled for Steve Snider, district engineer with the Colorado Health Department; Darrel Hamilton, Morgan County sanitarian with the Northeast Colorado Health Department, and Herb

Jaeger, environmental sanitarian with the Northeast Colorado Health Department in Sterling.

The New FORT LUPTON PRESS

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THURSDAY, APRIL 2, 1981

Offer to buy city water is explored

By Miles F. Porter IV

The possibility of Fort Lupton selling its sewage water to Amoco for use in the oil fields is being explored.

Both sides appear hopeful about use of the waste water, but a couple of hurdles must be cleared before an agreement is reached.

According to Fred Dillard, Amoco district supervisor in Denver, the oil company might need 150,000 gallons of water per day for as long as 10 years.

He said Tuesday that the water would be used to force underground oil in the Spindle Oil Field in the area surrounding Fort Lupton, which is part of the Denver-Julesburg Basin, to wells already producing.

The project, termed a "water flood pilot," is centered on wells in the Spindle Oil Field with a proposed pumping site on the Alice Smits property north of Fort Lupton on the east side of U.S. 85.

Dillard said the process, which has been around for at least 25 years, is used to prolong the life of an oil field.

City officials are now trying to figure out a price of the sewage water to provide to Amoco engineers, according to Rose Bowles, city administrator.

Bowles said the city's water expert, Tom Aron, a Boulder attorney, doesn't have an idea what treated sewage water sells for.

Presently, the city charges its water domestic use, Bowles said.

Using an example of 15 cents per 1,000 gallons, Bowles figured Tuesday the sale of 150,000 gallons per day would run \$22.50 daily.

Based on the possibility that Amoco would need the water for 10 years, the city would realize an amount of nearly \$83,000, Bowles said.

Bowles was quick to point out that the 15-cent figure was just for speculative figuring.

One of the hurdles which must be cleared by the oil company, Dillard explained, is the testing of the water and the oil to see if they'll "mix" or be compatible underground.

Some types of water, according to the engineer, may be too corrosive for this process, which would be similar to that being used on the Frank Suckla property where the results were termed "mixed" by Dillard.

Dillard said the pumping of water into the ground at the Suckla site has been carried out for 1½ years.

Another hurdle ahead of the oil production company, which employs 65 people out of its Fort Lupton office, would be in the laying of a pipeline from the sewage ponds to the pumping site.

The ponds are located on the west side of U. S. 85 and the pumping of water to move the oil located about 4,600 feet below the surface to the 450 wells in the Spindle Field would be done on the east side of the highway.

Administrator Bowles said that another Amoco engineer, Debi DeTurk, who has toured the Fort Lupton sewage ponds, said the crossing of the four-lane highway is another economic consideration and one that the state highway department would have input on.

And then there is the cost of the water charged by the city to Amoco.

"It's a question of economics," said

Amoco wants this math problem worth:

$150,000 \times 365 \times 10 = 547 \text{ million}$

gal. day yr. total

cont'd next
150 P. 2



Dillard. "What can we afford to do?"

Dillard said that Amoco has formed a unit in the Spindle Field, incorporating its resources with those of Energy Minerals and Martin Oil, to pursue the pilot flooding project.

"We're just trying to get more oil out of that oil field," he said of the process that extends the "life of the field, our office and jobs."

Amoco's spokesman said the project is still in its preliminary stages after first being proposed about one year ago. City officials were approached by DeTurk three weeks ago.

The city has adequate potable (good) water supplies, and a large quantity of waste water, according to Bowles.

However, Bowles admitted the city's

water quality is what bothers officials and residents - it's hard water.

"Our water quantity is very good," she stated. "It's the quality that it isn't as good as we'd like it to be."

She explained that the city pumps sewage water into its holding and purcolating ponds just west of the city at a rate of 400,000 to 600,000 gallons per day.

Even though Amoco officials also expressed interest in possibly buying regular city water if the sewage water fails the tests, Bowles said, "It would be better if they would buy water out of the sewage ponds. It would give us more capacity."

Bowles explained that the city is nearing capacity on the amount of used water it is able to process at the eight lagoons on the west side of the South Platte River.

If the city does agree to sell water, either sewage or clean, the money would go into the water or sewer fund depending on the source of the water.

Bowles said both funds are "in pretty good shape," and if a deal is made the financial gains would help eliminate future rate hikes.

With the use of its six wells now on an operating line and 13 more which could be put to work, the city is water wealthy and based on discussions in city council meetings, officials are always looking to obtain more rights.

With the volume of treated sewage water the city finds itself looking for other companies which might be interested in "used" water.

"We'd be glad to talk to any of them about it," Bowles said.

Platte Valley VOICE

Serving Kersey and the Platte Valley Area

Volume II, Number 37

Thursday, May 21, 1981

Well use is okayed for summer

Marvin Wakeman, pres. of Kersey Well Users Assn., has been advised the Assn. has been accepted by GASP for the 1981 season.

Members of the Assn. have been authorized to operate their wells during the 1981 season. Non-member wells are subject to a Cease and Desist Order, according to correspondence the Well Users Assn. board of directors received from their attorney, Kim R. Lawrence.

On May 13, Lawrence was advised by James R. Clark, State Division of Water Resources Division of Water Resources Division Engineer that a copy of a letter from GASP had been received. Said Clark, "It (the letter) states that the Kersey Well Users Assn. has been accepted for membership for the 1981 season. Based on that acceptance and upon receipt of a list of the association's member wells, I hereby authorize operation of those wells during the 1981 season."

Lawrence further informed the board, "All wells that belong to the Association may pump water as needed. Any persons who are not members of the Association in the Town of Kersey and pump water are subject to a Cease and Desist Order unless they have their own plan of augmentation or are otherwise exempted. Mr. Clark has a list of all member wells so those persons who have wells that do not belong to the association will probably be getting a visit from him."

The attorney continued, "Any persons who wish to join the Association to avoid a Cease and Desist Order should immediately contact my office, fill out an information sheet, and pay the \$20.00 membership fee and any assessments that may have been levied at such date. No new wells may be dug, even if a person is a member of the Association, without a well permit. The Association will make application for a well permit on behalf of any individual member."

Lawrence is a partner with Alvin L. Seinmark with offices located in Greeley National Plaza.

Last Chance Well Closings Ordered

By TIM CREWS
Times Staff Writer

Cease and desist orders arrived by registered mail Wednesday and today to at least 21 Last Chance - Woodrow area ranchers and farmers.

The letters, ordering the shutting down of irrigation wells, came after Robert Parker, Lakewood, became frustrated with calls on his wells and what he says is a move by the state to force him into GASP. Parker says his demand has nothing to do with the Browning-Ferris Industries hazardous waste dump being built west of Last

Chance and that he has not sold water to BFI. "I've never even met them," he said this morning.

Water Commissioner Bob Samples said that the orders went out because of the demand filed by Parker, who owns 1,500 acres in the Gary area, north of Woodrow several miles. "Parker made a demand that all wells not in an approved plan of augmentation be shut down," Samples said, noting that Parker's demand was made earlier this spring.

Not all the Last Chance area residents had yet received their orders

but those who have are greeting them with mixed emotions. In the middle of their fight with BFI, a battle in which nearly all the area ranchers and farmers have engaged, some were greeting the notification as having a silver lining.

"At least it recognizes that the water under the BFI site is tributary water," Pam Whelden, Concerned Citizens of Eastern Colorado spokeswoman, said. Samples said that the basis of the order was, in fact, that the irrigation wells, drawing underground water, were pulling from the South Platte

water system. "It's all tributary," Samples emphasized.

Critics of the BFI plan, including the Colorado State Engineer's Office, have argued that BFI does not have the necessary water to operate the dump and that even if they used water stored from rainfall, that supply would be illegal. Removing water in large quantities is a violation of water law because it removes the water from the tributary system.

Parker, for his part, is angry with the state. "I filed an augmentation plan, bought some more land, filed again and last fall I got a summons. They tried to shut me down and force me into GASP. Who is GASP anyway?"

"The state has seen fit to delay it (his augmentation plan) and the lawyers are expensive; it's cost me a fortune. I made the call to protect myself. If Sterling calls me, I can call the people junior to me. If the state is going to dry me up, I might just as well give up."

Parker says that he has 18 small wells, most of which are producing about one-sixth of his appropriation. Two, he says, are dry. "They should have called that water 50 years ago," he says.

But Samples says, "We've been working on this problem for more than two years; this didn't just spring up overnight."

Samples noted that the letters went to landowners "some distance" south of Last Chance. Many of those notified are CCEC members who have expressed concern over the area's water supply, both in terms of quantity and quality.

"They will all have to hook up to an augmentation plan or shut off," Samples said.

CCEC geologists argue, as did the geologist for the City of Brush, that water in the area eventually reaches not only the South Platte but domestic and agricultural wells. Parker says that he disagrees on underground water but says that water use upstream is "drying me up."

The Colorado Department of Health, state engineer and other agencies and officials are holding a hearing tonight at 7 p.m. at the Woodlin School on the BFI application. The cease and desist orders are expected to add to the controversy.

Although Parker said that he has not yet sold any water, "I might just." He said he is very frustrated with the entire process.

"When we get this thing (BFI) taken care of, we'll get to work on a water district," Mrs. Whelden said.

Water diversion could benefit Morgan County

DENVER — A proposed diversion of water from the South Platte River near Fort Morgan into the drainage basin of Badger and Beaver creeks could recharge ground water supplies in alluvial aquifers adjacent to the South Platte Valley, according to a report released by the U.S. Geological Survey, Department of the Interior.

The U.S. Fish and Wildlife Service requested the study to gain a better understanding of the direct and indirect impact of artificial recharge projects on fish, wildlife and waterfowl. Preliminary results suggest the increased ground water supply and enhanced streamflow would help sustain waterfowl and wildlife habitats in the area.

The USGS report concludes that an annual diversion of 43,000 acre feet of South Platte water into a system of canals and ponds in Morgan County would recharge the alluvial aquifers — underground water-bearing rock units — sufficiently to create flowing streams in the channels of the Badger and Beaver creeks, while also allowing an increase in ground water pumpage.

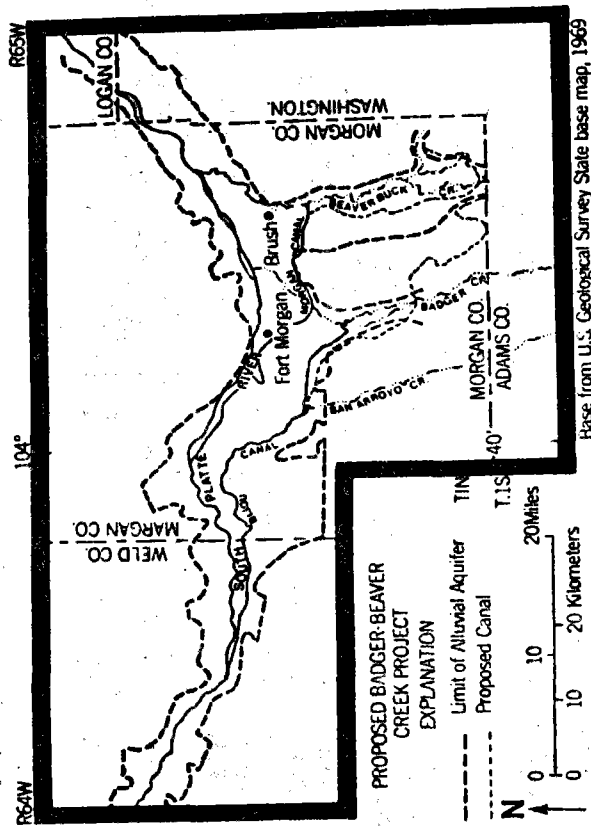
Badger and Beaver creeks are small tributaries flowing north into the South Platte River in east-central Morgan

County. Although both creeks are dry through most of their courses, except during flood times, the two alluvial aquifers that underlie their valleys historically have provided ground water for irrigation in areas where surface water from the South Platte cannot be supplied by gravity flow.

The Badger and Beaver Water Conservancy District was formed in 1976 to promote a project to artificially recharge the aquifers and once again achieve historical pumping rates and return lands to their irrigated condition.

Preliminary proposals call for diverting water from the South Platte at the existing Bijou Canal headgate. The water would flow through the Bijou Canal to the western edge of the Badger Creek Valley. From there the water would flow into a new canal system that could deliver water to the channels of both Badger and Beaver creeks and to canals to be constructed through the sandhills adjacent to these two valleys.

In addition to the canal system, the project also calls for numerous ponds. These ponds would be created either by installing check dams along the canals and creek channels or by creating turnouts to the many natural depressions, especially in the sandhills. These proposed ponds primarily would enhance



Proposed Badger-Beaver Creek Project

Report says project would boost water supplies

the area's environment for waterfowl and wildlife.

Seepage from the ponds, unlined canals and stream channels would infiltrate the underlying aquifers and recharge them sufficiently to accommodate the increased ground water pumping during the irrigation season.

To evaluate the projected benefits of the proposed water delivery system, the USGS developed a digital computer model which simulated the routing of the diversions from the river throughout the canal, channel and pond system. The model also computed seepage losses.

Cont'd. next page

The time interval used in the model was one month, which is estimated to be the shortest convenient amount of time needed for all the water to move through the entire canal system at low flow. Possible water losses because of evaporation or transpiration — water evaporated through plants — were considered small and were ignored.

Six model simulations, comparing different geographical layouts of the proposed canal system and using various river flow conditions, were used. According to the USGS report, "from the viewpoint of beneficial seepage, none of the alternatives has any distinct advantage over another."

To predict the effects of artificial recharge on the aquifer system, a ground water model of each of the two alluvial valley aquifers was constructed. Stresses to the aquifer, such as boundary fluxes, pumping, recharge and discharge to the stream were included.

Streamflow records, hydrographs of ground water wells, irrigation practices, precipitation data and hydrogeologic characteristics of the soils in the area were used in the model simulation.

In assessing the total impact of the proposed project on the South Platte

River basin the USGS report concludes that "the steady-state (long-term) effects of this project on the river downstream would be minimal. Most of the water that would recharge the two alluvial aquifers along the creeks would fulfill needs for ground water withdrawals or become streamflow that would return to the South Platte River. The only losses of water would be by evaporation from the ponds and the estimated increase in consumptive use by crops of about 13,000 acre feet per year."

The results of the study were published by the USGS as "Water Resources Investigations 80-46, proposed Badger-Beaver Creeks Artificial-Recharge Project, Morgan County, Colo." The author is Alan W. Burns, hydrologist with the Colorado District Office of the USGS Water Resources Division in Denver.

Copies of the report are available, at \$8 each, from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Va., 22161. The NTIS identification number is PB80 227 887. Orders must include the name and number of the report and a check or money order payable to the U.S. Department of Commerce.

The Greeley Daily Tribune

Tues.. June 23, 1981

B-1

In The Courts

Water Theft Charge

Felony theft charges were filed Wednesday in Morgan County District Court against Samuel and Anthony Brunelli of Weldona alleging they stole water from the Lower South Platte and Beaver Ditch Co.

The theft charge, a class four felony, alleges the Brunellis illegally removed water from the ditch company system with a value of between \$200 and \$10,000 on July 3 and on every day since.

The case has been assigned to District Judge James R. Leh.

Petitions Filed

Petitions for dissolution of marriage were filed in Morgan County District Court on behalf of Vicki and Leonard Perreira of Fort Morgan, and on behalf of Constance J. Bechtle of Fort Morgan and Gary E. Bechtle of Brush.

Payment Sought

A lawsuit has been filed in Morgan County District Court on behalf of R. M. Liittjohann of Fort Morgan seeking payment of a \$3,529.80 promissory note from the American Hog Co. of Wiggins.

The lawsuit says the promissory note was signed in April of 1980 with a due date in June of 1980 and that American Hog has refused payment of the loan. District Judge Dean Johnson will hear the case.

Rocky Mtn News Oct. 5, 1981

State blamed for water problems in Adams County

By SHARON STEWART
News Staff

Some Adams County residents whose wells are pouring forth undrinkable orange-colored water blame officials of the state Water Resources Division for much of their predicament.

They say the state has been ineffective in getting well drillers to comply with state laws and has failed to inform drillers about coal seams and other geological conditions peculiar to their subdivision, Wadley Farms in northeast Adams County.

As a result, said homeowner Steve Claps, some drillers are failing to seal wells properly and mineral-laden surface water is contaminating well water.

He said improperly sealed wells allow excessive amounts of iron, sulfate and salt in surface water to leach into the well water. Homeowners are forced to spend thousands of extra dollars to have their wells resealed or have new wells dug, he said.

Claps, who said he will be forced to spend \$8,000 for a new well, has filed a complaint with the Water Resources Division, alleging the driller who dug his well didn't seal it properly. An official of the state Water Resources Division said he is trying to schedule a hearing as soon as possible.

Claps said the driller tried to reseat his well, but he still is getting undrinkable water. The driller "finally said that there was nothing wrong with (my) water and that he did everything according to state law in drilling the well," Claps said.

Claps said Tri-County Health Department officials told him the driller "didn't seal off all the foreign surface water sources."

Nick Keller, chief environmentalist at the Health Department, said state law requires drillers to construct wells in a

manner that will keep surface and ground water separated. He said his office sent a letter to the state three years ago stating that "poor well construction is the main cause of the problem" in the Wadley Farms area.

He said state officials also were advised that "the lack of proper grouting on the wells is allowing surface water to seep down into the deeper water."

Bruce DeBrine, chief enforcement officer for the state's water division, said his office is responsible for enforcing the law, but he added, "We have no power." He said his staff can only "point out there may be some apparent violation of rules and regulations."

DeBrine said complaints that come to his office about bad wells are sent to an appointed board of examiners, which then decides whether a driller has violated drilling regulations. He said he has been trying to convene the board to hear Claps' complaint, but "it's difficult to get all members of the board together."

In the meantime, DeBrine said, his staff has contacted some drillers about alleged faulty wells in Wadley Farms. "They've gone back" to try and correct the problem, he said.

DeBrine said his department doesn't issue a well permit in Wadley Farms without telling the homeowner about conditions peculiar to the area. But he said the homeowners enter into contracts with well drillers, and their "only recourse might be some kind of civil action."

Some residents of Wadley Farms said they've been told by some drillers that the Arapahoe aquifer water that flows under their homes is bad. But if that is so, the homeowners ask, why do the wells dug by one particular company always bring in good water?

Ken Conright of the Tri-County Health Department, who also lives in Wadley Farms, said before he resealed his well, the water "was so hard it would barely come out of the tap."

He said in most cases, area homeowners can "regROUT or reseat" their wells and get high-quality drinking water. One way to regROUT a well, according to Conright, is to pump soft cement on the outside of the well's casing through a 1/2-inch copper or steel pipe. He cautioned that the process, which often is used to seal oil wells, is not 100 percent effective.

Many residents, who thought they had bad water, found there wasn't anything wrong with their water after they regROUTed their wells and made them watertight, Keller said. "Once the wells were grouted properly, the problem went away," he said.

Chris Merrick, 13922 Gaylord St., said that when she and her husband, Randy, moved into their home three years ago, "Our well water was perfectly orange and, in fact, looked like tea. My husband took a bath in it and ended up with orange fingernails and toenails."

Merrick said a four-month "nightmare" of hauling water in milk bottles led her to purchase a \$250 water-filtering system. "But that didn't do the trick," she said. "Then we called in professional water-softener people and bought a softener for \$1,000."

The filtered and softened water "was so full of sodium that you couldn't drink it, but you could bathe and wash clothes," she said.

Two years later, Merrick contacted a driller who said he could regROUT the well and solve the problem. "It was a big gamble, but it worked," Merrick said.

Boulder Daily Camera 11/17/81

Pine Brook Hills Sues County on Diversion

By SHARON GILLEN
Camera Staff Writer

Pine Brook Water District Monday filed a civil suit against the Boulder County Commissioners, asking that it be allowed to build a water pipeline and related facilities without the county's OK.

The pipeline would be used to carry out a controversial water diversion from Fourmile Creek to homes in Pine Brook Hills subdivision north of Boulder.

The commissioners in September tabled the district's application for a special-use permit for construction of the facilities, pending a Water Court ruling.

However, in its suit, filed in Boulder District Court, the Pine Brook

Water District claims it is not required under state law to get a permit from the commissioners to build the pipeline and water treatment, storage and pumping facilities.

County Attorney Ann Raisch apparently supported that contention at a public meeting in September. She said, because it is a special district, Pine Brook Water District could build the facilities with or without the county's permission.

Raisch said at that time that the district "would still have the right ... to proceed with construction of their facilities" even if a special-use permit were denied.

The proposal has an-

gered residents of Fourmile Canyon. They are taking the case to Water Court to challenge water rights, owned by John Wittemyer, which the district is leasing. Fourmile residents claim the diversion will not leave them with enough water for domestic use or fire fighting.

The county Planning Commission in July recommended that the commissioners conditionally approve the special-use permit. But the commissioners tabled the issue then and, according to the district's suit, have refused to reconsider it.

On Oct. 7, the suit states, "the Board of Directors of the Pine Brook Water District unanimously adopted a resolution to proceed with planning, designing, financing and constructing" the pipeline.

District voters on Nov. 3 authorized the sale of \$1.5 million in bonds to finance the project.

The water district contends that it "has exhausted all required procedures and is entitled to proceed."

The district asks the court to order Boulder County to issue any permits it may need for construction of the water project. The district also asks for a judgment declaring that it has complied with state law and either has county approval or has the authority to overrule it.

Low runoff leaves CBT reservoirs at 45 percent

But, Big Thompson's tributary reservoirs at 101 percent of capacity

LOVELAND — Record low runoff on the watersheds feeding the Colorado-Big Thompson Project in 1981 left CBT reservoirs at only 45 percent of capacity, according to John Bigham, operations and maintenance superintendent for the Northern Colorado Water Conservancy District.

A year ago, Bigham pointed out at a recent NCWCD board meeting, the reservoirs ended the irrigation season at 71 percent of active capacity.

Total conserved inflow at Granby Reservoir this season was only 114,845 acre feet, less than half the amount stored a year ago and even less than the 124,189 acre feet captured in 1977 when the area experienced an unusually dry year.

"This year's inflow to the CBT system was only 48 percent of normal, and Colorado River flow at Lake Granby was the second lowest record in 54 years.

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This year's inflow to the CBT system was only 48 percent of normal, and Colorado River flow at Lake Granby was the second lowest record in 54 years. Only 1934 was lower.

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Only 1934 was lower," Bigham said.

Above average precipitation during the irrigation season, however, reduced demand for supplemental water within the NCWCD, and irrigation companies were able to carry over almost as much water this year in tributary reservoirs as they did a year ago. Carry-over storage in tributary reservoirs is 101 percent of average compared to only 77 percent of normal in the CBT.

Earl Phipps, secretary-manager of the NCWCD, pointed out that the rather large disparity between carry-over storage in tributary reservoirs with the NCWCD and CBT reservoirs would seem to indicate that the district's 1981 delivery quota was higher than actually needed to supply water users.

"Should the area receive heavy runoff next spring,

these reservoirs will rapidly fill and significant amounts of water will be lost downstream due to a lack of available capacity. In 1980, nearly 1 million acre feet of water was lost because reservoirs were full and irrigation companies had nowhere to store additional runoff," Phipps said.

Even though runoff in 1981 was down substantially, carry-over storage is adequate to meet the needs of water users within the NCWCD next year if conditions require another 100 percent quota, Phipps said. CBT reservoirs ended the year with 325,797 acre feet of storage, and tributary reservoirs stored an additional 226,154 acre feet.

Normal deliveries by the NCWCD average almost 220,000 acre feet per year.

Unprecedented action

GREELEY TRIBUNE DEC 5, 1981

State urged to help fund water projects

DENVER (AP) — In an unprecedented action, the Colorado Water Conservation Board voted Friday to recommend that the state provide \$25 million "front-end" money for construction of the proposed Narrows Dam and Animas-La Plata water storage projects.

Both projects were stalled after their inclusion on former President Carter's so-called hit list, which cut off federal funding for several water projects in Colorado.

CWCB chairman Robert Jackson of Pueblo said Colorado's providing up-front funding would send to the Reagan administration a strong signal of commitment by the state to water project development, and it should strengthen the state's position in discussions with the federal government.

He said Gov. Richard Lamm believes the state should make a strong commitment to needed capital investments, including water projects.

According to Jackson, the \$25 million legislative appropriation recommended for the 1982-83 fiscal

year is part of an \$85 million front-end funding package sought by the CWCB for the Narrows and Animas-La Plata projects as its No. 1 priority in its proposed five-year capital investment budget.

The CWCB said the \$25 million should be allocated between the two projects in proportion to the cost of each. The proposal calls for the state sharing in revenues from the projects in proportion to Colorado's financial participation with the federal government.

The CWCB said it is probable no federal water projects will receive favorable consideration without state participation.

In other action, the CWCB approved requests for more than \$6 million from its construction fund for new projects and the repair and rehabilitation of existing water storage and delivery systems.

Loans approved by the CWCB to be recommended to the Legislature next year include \$3.15 million as the state's 50 percent share of raw water storage project for the city of Craig, costing \$6.3 million;

\$108,500 of the \$217,000 necessary to replace a wooden diversion dam with a reinforced concrete structure on the South Platte River southwest of Platteville; \$125,000 of the \$250,000 needed to correct deficiencies on the Ground Hog Dam 30 miles northeast of Dolores.

Also approved were loans for \$2,057 million of the \$4,114 million necessary to completely rehabilitate the Fossil Creek Dam just west of I-25 about 2 miles south of Fort Collins and an \$850,000 loan plus a \$750,000 state grant to construct a new dam to replace the impaired Overland Reservoir Dam on Cow Creek below the existing facility, 20 miles northeast of Hotchkiss.

Other loans sought by the town of Erie to increase its present storage capacity and another from the Fruitland-Mesa Conservancy District to increase the capacity of its Gould Reservoir serving Delta and Montrose county irrigators were tabled until the CWCB's February meeting in Grand Junction.

Computer, satellite to speed up river-data delivery

By SANDY GRAHAM
News Energy/Science Writer

A Massachusetts satellite-research pioneer is banking on there being enough customers willing to pay between \$5,000 and \$400,000 a year to find out, by way of satellite and computer, how high and how fast the Arkansas River is running.

Communications Satellite Corp. — known as COMSAT — and its subsidiary, Environmental Research & Technology Inc., plan to start construction this week on 75 automated monitoring stations along the Arkansas from the mountains southwest of Denver to the Kansas border.

The companies won't say how much they'll spend, except that it's a "large" amount. COMSAT and ERT hope to sell the river information "to a host of customers," said Ross Yeiter, vice president and director of ERT's information systems group.

Prospective buyers range from the state engineer to such federal agencies as the Bureau of Reclamation to private canal

cooperatives and city governments. The companies see the system as a way of improving river monitoring and water allocation in the arid West, Yeiter said.

The tool-shed-sized monitoring stations along the Arkansas banks will house electronic equipment including a monometer which is a pressure-sensitive line that will extend into the water. On top will be a solar panel to provide power for the equipment and an antenna to beam information by microwave to a COMSAT satellite. From the satellite, the data will go into the company's computer in Massachusetts, where it can be tapped by customers with computer terminals.

While the charge to customers may sound steep, the alternative is having human beings drive along the river to collect readings.

Last year, water commissioners drove more than 200,000 miles to check gauges and report readings to the state engineer in

charge of monitoring the Arkansas, according to state government spokesmen.

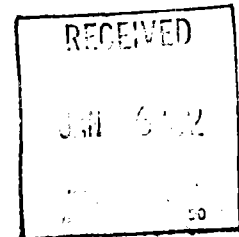
COMSAT's automated system "gives us the next step — what we call real-time data," said Jim Blakey, Colorado district chief of the U.S. Geological Survey's water resources division. The time lag between a data reading along the river to the information showing up in a customer's computer terminal would be just a few minutes, Yeiter said.

Yeiter said the automated system is the first of its kind and something of an experiment, although "it's more a test of customer interest than a technical test."

For the past two years, the companies have operated 105 monitoring stations across the country for the U.S. Geological Survey, comparing the computer-satellite data to that recorded by old USGS equipment at the same sites. Fourteen stations along the Arkansas will be incorporated into the expanded system.

Rocky Mountain News 12-14-81

An Act



SENATE BILL NO. 3.

BY SENATORS Anderson, Clark, Beatty, P. Powers, Strickland, Yost, and Zakhem;
also REPRESENTATIVES Spano, Shoemaker, Winkler, Mielke, Paulson, Prendergast, Spelts, and Younglund.

CONCERNING APPROVAL OF AN EXCHANGE OF WATER.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-92-302 (1) (a), Colorado Revised Statutes 1973, is amended to read:

37-92-302. Applications for water rights or changes of such rights - plans for augmentation. (1) (a) Any person who desires a determination of a water right or a conditional water right and the amount and priority thereof, including a determination that a conditional water right has become a water right by reason of the completion of the appropriation, a determination with respect to a change of a water right, approval of a plan for augmentation, or quadrennial finding of reasonable diligence, OR APPROVAL OF A PROPOSED OR EXISTING EXCHANGE OF WATER UNDER SECTION 37-80-120 OR 37-83-104, shall file with the water clerk in quadruplicate a verified application setting forth facts supporting the ruling sought, a copy of which shall be sent by the water clerk to the state engineer and the division engineer.

SECTION 2. 37-92-305, Colorado Revised Statutes 1973, as amended, is amended BY THE ADDITION OF A NEW SUBSECTION to read:

37-92-305. Standards with respect to rulings of the referee and decisions of the water judge. (10) If an application filed under section 37-92-302 for approval of an existing exchange of water is approved, the original priority date or priority dates of the exchange shall be recognized and preserved unless such recognition or preservation would be contrary to the manner in

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

An Act

SENATE BILL NO. 414.

BY SENATORS Yost, Anderson, Clark, D. Sandoval, Soash, and Fowler;
also REPRESENTATIVES Spano, Younglund, Hinman, Shoemaker, Boley, Winkler, Bledsoe, Gillis, Lillpop, Paulson, and Reeves.

CONCERNING THE ESTABLISHMENT OF PRINCIPLES AND LIMITATIONS WHICH GOVERN APPROPRIATIONS OF WATER MADE BY THE COLORADO WATER CONSERVATION BOARD FOR THE PURPOSE OF PRESERVING THE NATURAL ENVIRONMENT TO A REASONABLE DEGREE PURSUANT TO SECTION 37-92-102 (3), COLORADO REVISED STATUTES 1973.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-92-102 (3), Colorado Revised Statutes 1973, is amended to read:

37-92-102. Legislative declaration. (3) Further recognizing the need to correlate the activities of mankind with some reasonable preservation of the natural environment, the Colorado water conservation board is hereby vested with the authority, on behalf of the people of the state of Colorado, to appropriate in a manner consistent with sections 5 and 6 of article XVI of the state constitution, or acquire, such waters of natural streams and lakes as may be required to preserve the natural environment to a reasonable degree. Prior to the initiation of any such appropriation, the board shall request recommendations from the division of wildlife and the division of parks and outdoor recreation. Nothing in this article shall be construed as authorizing any state agency to acquire water by eminent domain, or to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact. ANY APPROPRIATION MADE PURSUANT TO THIS SUBSECTION (3) SHALL BE SUBJECT TO THE FOLLOWING PRINCIPLES AND LIMITATIONS:

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

Fred E. Anderson

Fred E. Anderson
PRESIDENT OF
THE SENATE

Carl B. Bledsoe

Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES

Marjorie L. Rutenbeck

Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE

Lorraine F. Lombardi

Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

APPROVED _____

Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO

S.B. 510 Concerning The Powers Of The Colorado River Water Conservation District With Respect To The Acquisition Of Water, Water Rights, And Electricity, And Enlarging The Cooperative Powers Of The District And Its Subdistricts Relating Thereto.

Approved June 19, 1981 at 8:35 am

S.B. 511 Concerning Unsafe Operation Of Motor Vehicles Caused By A Driver's Recklessness Or A Driver's Use Of Liquor, Drugs, Or Toxic Vapors.

Approved June 19, 1981 at 8:36 am

Respectfully,

Richard D. Lamm Governor

RECEIVED by Marcie L. Rutenbeck

JUN 19 1981 2-40 PM

SECRETARY OF THE SENATE

June 22, 1981

To The Honorable Colorado State Senate Fifty-third General Assembly First Regular Session State Capitol Denver, Colorado 80203

Ladies and Gentlemen:

Senate Bill 414, "Concerning the Establishment of Principles and Limitations which Govern Appropriations of Water made by the Colorado Water Conservation Board for the Purpose of Preserving the Natural Environment to a Reasonable Degree Pursuant to Section 37-92-102 (3), Colorado Revised Statutes 1973," was received by the Governor's Office on June 10, 1981. As of this writing, I have neither approved nor vetoed this act. Therefore, in accordance with the provisions of Article

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IV, Section 11, of the Colorado State Constitution, this act has become law and will be filed with the Secretary of State.

Although I question the symbolic and practical purposes of new legislation which simply restates existing law and administrative practices, I have allowed Senate Bill 414 to become law without my signature. As you know, I have been a long time supporter of Colorado's minimum stream flow program, and it is my desire to see that program continued. Protection of our streams provides economic, recreational and environmental benefits to a large portion of our State's population and need not conflict with the much needed development of our water resources. However, as questions have been raised about the potential for conflicting interpretations of Senate Bill 414, I am not particularly enthusiastic about signing this legislation but will allow it to become law with the following reasons in mind:

1. It is my understanding that Senate Bill 414 is a compromise measure which addresses the concerns of water users with regard to potential administrative abuses without, in any way, jeopardizing the State's ability to acquire and protect instream flows.
2. I have received extensive legal assurances that Senate Bill 414 does not subordinate minimum stream flow water rights to future changes or exchanges, but does allow continuation of exchanges or practices in existence at the time such minimum flow appropriations are made.
3. I hope Senate Bill 414 will put this issue to rest and neutralize future possible efforts to repeal the minimum stream flow program.

I commend the efforts of the many diverse interests that worked constructively on this compromise legislation and hope this results in a precedent for reducing the polarization which has occurred in the past on so many water issues. In addition, I wish to strongly reaffirm this administration's enthusiastic support for continuation of the minimum stream flow program.

Respectfully submitted,

Richard D. Lamm
Richard D. Lamm
Governor

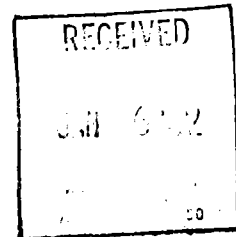
VED by *Margie L. Rutenbeck*

JUN 22 1981 1-40 PM

SECRETARY OF THE SENATE

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An Act



SENATE BILL NO. 3.

BY SENATORS Anderson, Clark, Beatty, P. Powers, Strickland, Yost, and Zakhem;
also REPRESENTATIVES Spano, Shoemaker, Winkler, Mielke, Paulson, Prendergast, Spelts, and Younglund.

CONCERNING APPROVAL OF AN EXCHANGE OF WATER.

Be it enacted by the General Assembly of the State of Colorado:

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37-92-302. Applications for water rights or changes of such rights - plans for augmentation. (1) (a) Any person who desires a determination of a water right or a conditional water right and the amount and priority thereof, including a determination that a conditional water right has become a water right by reason of the completion of the appropriation, a determination with respect to a change of a water right, approval of a plan for augmentation, or quadrennial finding of reasonable diligence, OR APPROVAL OF A PROPOSED OR EXISTING EXCHANGE OF WATER UNDER SECTION 37-80-120 OR 37-83-104, shall file with the water clerk in quadruplicate a verified application setting forth facts supporting the ruling sought, a copy of which shall be sent by the water clerk to the state engineer and the division engineer.

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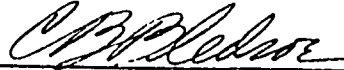
Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

which such exchange has been administered.

SECTION 3. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.



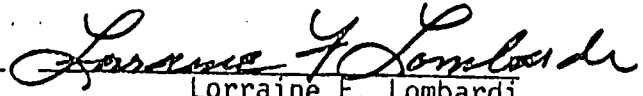
Fred E. Anderson
PRESIDENT OF
THE SENATE



Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES



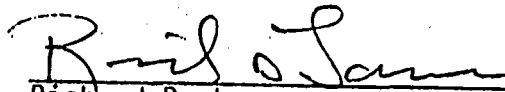
Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE



Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

APPROVED

April 24, 1981 8 07 pm



Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO

An Act

SENATE BILL NO. 414.

BY SENATORS Yost, Anderson, Clark, D. Sandoval, Soash, and Fowler;
also REPRESENTATIVES Spano, Younglund, Hinman, Shoemaker, Boley, Winkler, Bledsoe, Gillis, Lillpop, Paulson, and Reeves.

CONCERNING THE ESTABLISHMENT OF PRINCIPLES AND LIMITATIONS WHICH GOVERN APPROPRIATIONS OF WATER MADE BY THE COLORADO WATER CONSERVATION BOARD FOR THE PURPOSE OF PRESERVING THE NATURAL ENVIRONMENT TO A REASONABLE DEGREE PURSUANT TO SECTION 37-92-102 (3), COLORADO REVISED STATUTES 1973.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-92-102 (3), Colorado Revised Statutes 1973, is amended to read:

37-92-102. Legislative declaration. (3) Further recognizing the need to correlate the activities of mankind with some reasonable preservation of the natural environment, the Colorado water conservation board is hereby vested with the authority, on behalf of the people of the state of Colorado, to appropriate in a manner consistent with sections 5 and 6 of article XVI of the state constitution, or acquire, such waters of natural streams and lakes as may be required to preserve the natural environment to a reasonable degree. Prior to the initiation of any such appropriation, the board shall request recommendations from the division of wildlife and the division of parks and outdoor recreation. Nothing in this article shall be construed as authorizing any state agency to acquire water by eminent domain, or to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact. ANY APPROPRIATION MADE PURSUANT TO THIS SUBSECTION (3) SHALL BE SUBJECT TO THE FOLLOWING PRINCIPLES AND LIMITATIONS:

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

(a) ANY SUCH APPROPRIATION WHICH IS BASED UPON WATER IMPORTED FROM ONE WATER DIVISION TO ANOTHER BY SOME OTHER APPROPRIATOR SHALL NOT, AS AGAINST THE APPROPRIATOR OF SUCH IMPORTED WATER OR HIS SUCCESSOR IN INTEREST, CONSTITUTE A CLAIM, BAR, OR USE FOR ANY PURPOSE WHATSOEVER.

(b) ANY SUCH APPROPRIATION SHALL BE SUBJECT TO THE PRESENT USES OR EXCHANGES OF WATER BEING MADE BY OTHER WATER USERS PURSUANT TO APPROPRIATION OR PRACTICES IN EXISTENCE ON THE DATE OF SUCH APPROPRIATION, WHETHER OR NOT PREVIOUSLY CONFIRMED BY COURT ORDER OR DECREE.

(c) BEFORE INITIATING A WATER RIGHTS FILING, THE BOARD SHALL DETERMINE THAT THE NATURAL ENVIRONMENT WILL BE PRESERVED TO A REASONABLE DEGREE BY THE WATER AVAILABLE FOR THE APPROPRIATION TO BE MADE; THAT THERE IS A NATURAL ENVIRONMENT THAT CAN BE PRESERVED TO A REASONABLE DEGREE WITH THE BOARD'S WATER RIGHT, IF GRANTED; AND THAT SUCH ENVIRONMENT CAN EXIST WITHOUT MATERIAL INJURY TO WATER RIGHTS.

(d) NOTHING IN THIS SECTION IS INTENDED OR SHALL BE CONSTRUED TO ALLOW CONDEMNATION BY THIS STATE OR ANY PERSON OF EASEMENTS OR RIGHTS OF WAY ACROSS PRIVATE LANDS TO GAIN ACCESS TO A SEGMENT OF A STREAM OR LAKE WHERE A WATER RIGHT DECREE HAS BEEN AWARDED TO THE WATER CONSERVATION BOARD.

SECTION 2. Safety clause. The general assembly hereby

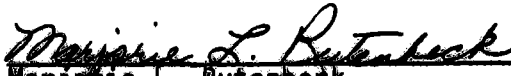
finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.



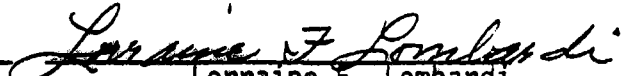
Fred E. Anderson
PRESIDENT OF
THE SENATE



Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES



Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE



Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

APPROVED _____

Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO




S.B. 510 Concerning The Powers Of The Colorado River Water Conservation District With Respect To The Acquisition Of Water, Water Rights, And Electricity, And Enlarging The Cooperative Powers Of The District And Its Subdistricts Relating Thereto.

Approved June 19, 1981
at 8:35 am

S.B. 511 Concerning Unsafe Operation Of Motor Vehicles Caused By A Driver's Recklessness Or A Driver's Use Of Liquor, Drugs, Or Toxic Vapors.

Approved June 19, 1981
at 8:36 am

Respectfully,


Richard D. Lamm
Governor

RECEIVED by *Marjorie L. Rutenbeck*

JUN 19 1981 2-40 PM

SECRETARY OF THE SENATE

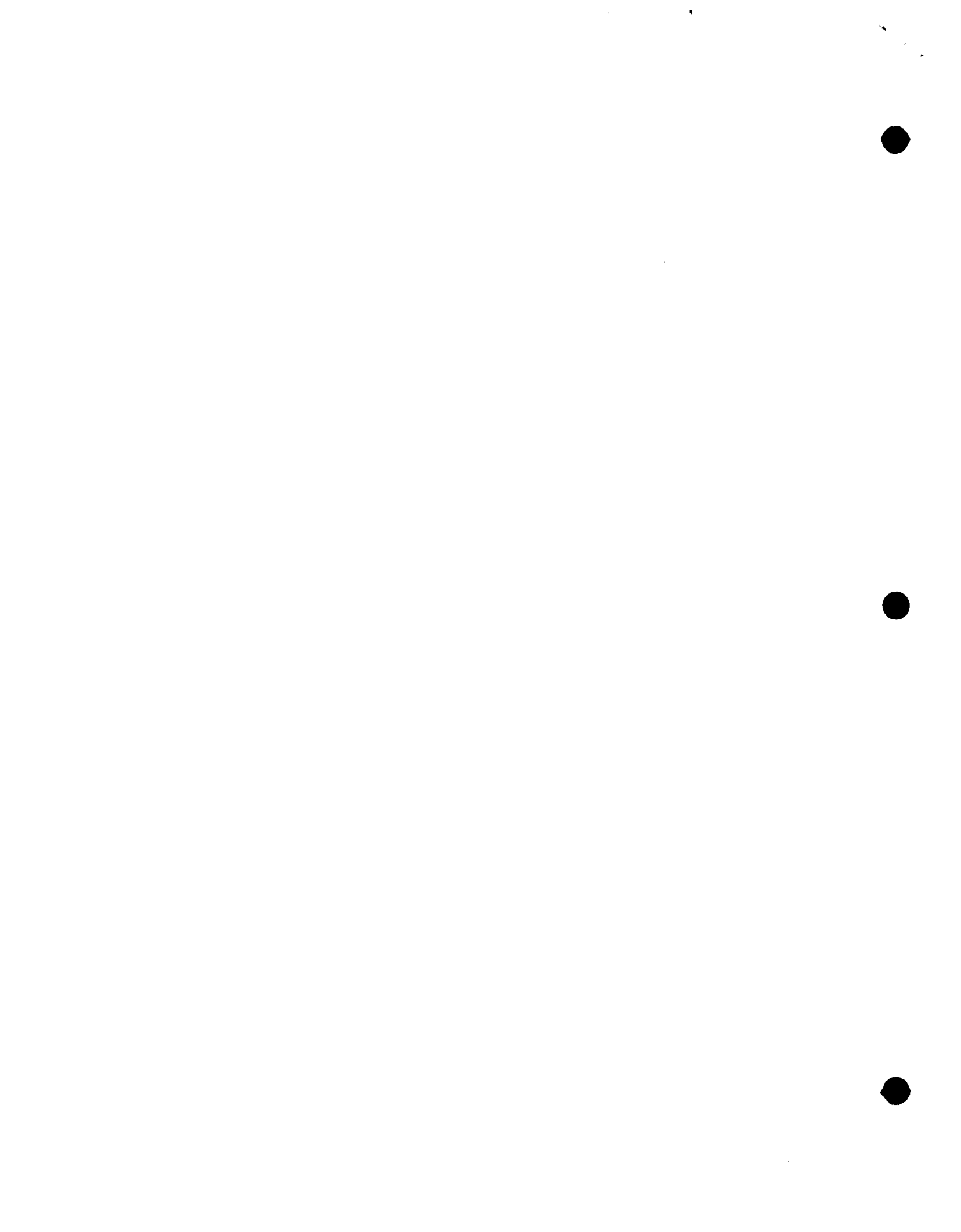
June 22, 1981

To The Honorable
Colorado State Senate
Fifty-third General Assembly
First Regular Session
State Capitol
Denver, Colorado 80203

Ladies and Gentlemen:

Senate Bill 414, "Concerning the Establishment of Principles and Limitations which Govern Appropriations of Water made by the Colorado Water Conservation Board for the Purpose of Preserving the Natural Environment to a Reasonable Degree Pursuant to Section 37-92-102 (3), Colorado Revised Statutes 1973," was received by the Governor's Office on June 10, 1981. As of this writing, I have neither approved nor vetoed this act. Therefore, in accordance with the provisions of Article

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IV, Section 11, of the Colorado State Constitution, this act has become law and will be filed with the Secretary of State.

Although I question the symbolic and practical purposes of new legislation which simply restates existing law and administrative practices, I have allowed Senate Bill 414 to become law without my signature. As you know, I have been a long time supporter of Colorado's minimum stream flow program, and it is my desire to see that program continued. Protection of our streams provides economic, recreational and environmental benefits to a large portion of our State's population and need not conflict with the much needed development of our water resources. However, as questions have been raised about the potential for conflicting interpretations of Senate Bill 414, I am not particularly enthusiastic about signing this legislation but will allow it to become law with the following reasons in mind:

1. It is my understanding that Senate Bill 414 is a compromise measure which addresses the concerns of water users with regard to potential administrative abuses without, in any way, jeopardizing the State's ability to acquire and protect instream flows.
2. I have received extensive legal assurances that Senate Bill 414 does not subordinate minimum stream flow water rights to future changes or exchanges, but does allow continuation of exchanges or practices in existence at the time such minimum flow appropriations are made.
3. I hope Senate Bill 414 will put this issue to rest and neutralize future possible efforts to repeal the minimum stream flow program.

I commend the efforts of the many diverse interests that worked constructively on this compromise legislation and hope this results in a precedent for reducing the polarization which has occurred in the past on so many water issues. In addition, I wish to strongly reaffirm this administration's enthusiastic support for continuation of the minimum stream flow program.

Respectfully submitted,

Richard D. Lamm
Richard D. Lamm
Governor

WED by *Margaret L. Rutenbeck*

JUN 22 1981 1:40 PM

SECRETARY OF THE SENATE

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An Act

HOUSE BILL NO. 1055.

BY REPRESENTATIVES Boley, Armstrong, DeNier, Hinman, Hudson, Lillpop, Mielke, Paulson, Reeves, Robb, Shoemaker, and Younglund; also SENATORS Yost, Clark, and Soash.

CONCERNING APPLICATIONS RELATING TO WATER RIGHT DETERMINATIONS AND CONDITIONAL WATER RIGHTS, AND SPECIFYING PROCEDURES AND CRITERIA RELATING THERETO.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-92-304 (6), Colorado Revised Statutes 1973, is amended to read:

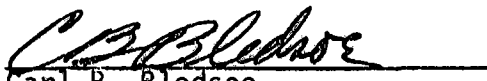
37-92-304. Proceedings by the water judge. (6) Any decision of the water judge as specified in subsection (5) of this section dealing with a change of water right ~~may; and in the case of~~ OR a plan for augmentation shall; include the condition that the approval of such change or plan shall be subject to reconsideration by the water judge on the question of injury to the vested rights of others for such period after the entry of such decision as is necessary or desirable to preclude or remedy any such injury. SUCH CONDITION SETTING FORTH THE PERIOD ALLOWED FOR RECONSIDERATION SHALL BE DETERMINED BY THE WATER JUDGE AFTER MAKING SPECIFIC FINDINGS AND CONCLUSIONS INCLUDING, WHEN APPLICABLE, THE HISTORIC USE TO WHICH THE WATER RIGHTS INVOLVED WERE PUT, IF ANY, AND THE PROPOSED FUTURE USE OF THE WATER RIGHTS INVOLVED. The water judge shall specify his determination as to such period in his decision, but the period may be extended upon further decision by the water judge that the nonoccurrence of injury shall not have been conclusively established. Any decision may contain any other provision which the water judge deems proper in determining the rights and interests of the persons involved. All decisions of the water judge, including decisions as to the period of reconsideration and extension thereof, shall become a judgment and decree as specified in this

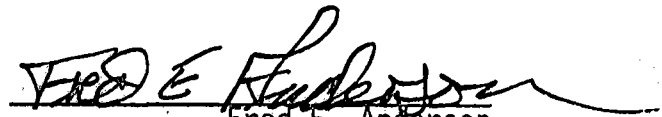
Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.


article and be appealable upon entry, notwithstanding conditions subjecting them THE DECISIONS to reconsideration on the question of injury to the vested rights of others as provided in this subsection (6).


SECTION 2. Effective date - applicability. This act shall take effect July 1, 1981, and shall apply to applications for water right determinations and conditional water rights submitted on or after said date.

SECTION 3. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

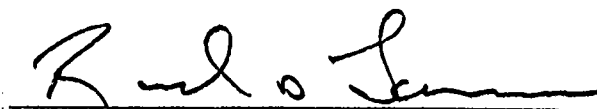

Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES


Fred E. Anderson
PRESIDENT OF
THE SENATE


Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES


Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE

APPROVED May 28, 1981 3:57 p-


Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO

An Act

HOUSE BILL NO. 1269.

BY REPRESENTATIVES Hastings, Bledsoe, DeFilippo, DeHerrera, Dyer, Hamlin, Hudson, Johnson, Knox, Marks, Martinez, McCroskey, Pena, Skaggs, Tancredo, and Taylor;
also SENATORS Yost, Baca Barragan, and Zakhem.

AUTHORIZING THE USE PURSUANT TO SECTION 37-81-101 (1), COLORADO REVISED STATUTES 1973, BY ASHTON WILSON OF WATER DIVERTED OUT OF THE NORTH FORK OF THE REPUBLICAN RIVER UNDER THE PRIORITY OF THE WILSON NO. 1 WATER RIGHT FOR AGRICULTURAL PURPOSES ONLY ON CERTAIN AGRICULTURAL LANDS OWNED BY HIM IN DUNDY COUNTY, NEBRASKA, WHICH ARE CONTIGUOUS TO HIS AGRICULTURAL LANDS IN YUMA COUNTY, COLORADO.

WHEREAS, Ashton Wilson is a domiciliary and freeholder of the State of Colorado, owning certain agricultural lands just east of Laird, Colorado, which have historically been and continue to be used for ranching and farming purposes; and

WHEREAS, Said lands lie contiguously on either side of the Colorado-Nebraska state line in Yuma county, Colorado and Dundy county, Nebraska; and

WHEREAS, Said Ashton Wilson is the sole owner of the Wilson No. 1 water right, as was decreed absolutely for irrigation purposes out of the North Fork of the Republican River on certain of his contiguous Yuma county lands by the decree of the district court in and for water division no. 1 on April 16, 1980, in case no. W-7888-79; and

WHEREAS, Pursuant to section 37-81-101 (1), Colorado Revised Statutes 1973, Ashton Wilson now desires to enable the water diverted pursuant to said Wilson No. 1 water right to be used for agricultural purposes only on approximately 522 acres of his contiguous agricultural lands in Dundy county Nebraska, to wit:

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

Beginning at the common corner of Sections 2, 3, 10 and 11 in T1N, R42W of the 6th P.M., Dundy County, Nebraska and thence proceeding in a Northwesterly direction to the point at which the Colorado-Nebraska State line is crossed by the line separating Townships 1 and 2 North of said R42W in Yuma County, Colorado, thence proceeding in a Southerly direction along said State line a distance of 6,400 feet, thence proceeding 2,550 feet due East, and thence proceeding 1,650 feet due North to the point of beginning, encompassing 522 acres, more or less.

WHEREAS, Pursuant to section 37-81-101 (1), Colorado Revised Statutes 1973, the general assembly has consulted with the state engineer and has considered the willingness of the State of Nebraska to allow diversions of its water for use in Colorado; now, therefore,

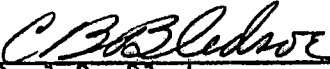
Be it enacted by the General Assembly of the State of Colorado:

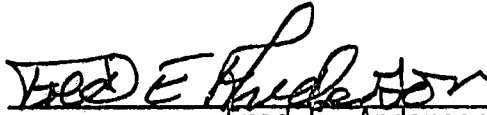
SECTION 1. Ashton Wilson is hereby authorized, pursuant to section 37-81-101 (1), Colorado Revised Statutes 1973, to use water diverted out of the North Fork of the Republican River pursuant to the decreed priority of the Wilson No. 1 water right on his approximately 522 acres of his contiguous agricultural lands in Dundy county, Nebraska, to wit:


Beginning at the common corner of Sections 2, 3, 10 and 11 in T1N, R42W of the 6th P.M., Dundy County, Nebraska and thence proceeding in a Northwesterly direction to the point at which the Colorado-Nebraska State line is crossed by the line separating Townships 1 and 2 North of said R42W in Yuma County, Colorado, thence proceeding in a Southerly direction along said State line a distance of 6,400 feet, thence proceeding 2,550 feet due East, and thence proceeding 1,650 feet due North to the point of beginning, encompassing 522 acres, more or less.


SECTION 2. Safety clause. The general assembly hereby

finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.


Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES


Fred E. Anderson
PRESIDENT OF
THE SENATE


Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES


Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE

APPROVED June 4, 1981 11:24 am


Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO

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An Act

RECEIVED

JUN 29 '81

WATER RESOURCES
STATE ENGINEER
COLO.

HOUSE BILL NO. 1504.

BY REPRESENTATIVES Paulson, Armstrong, Bledsoe, DeNier, Heim, Hinman, Kirscht, Lillpop, Mielke, Robb, Spelts, Underwood, and Winkler;
also SENATORS Kadlecck, Noble, and P. Sandoval.

CONCERNING PROCEEDINGS UNDER THE "WATER RIGHT DETERMINATION AND ADMINISTRATION ACT OF 1969".

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-92-302 (3) (c), Colorado Revised Statutes 1973, is amended to read:

37-92-302. Applications for water rights or changes of such rights - plans for augmentation. (3) (c) Not later than the end of such month, a copy of such resume shall be mailed BY THE REFEREE OR THE WATER CLERK to each person who the referee has reason to believe would be affected or who has requested the same by submitting his name and address to the water clerk. The water clerk shall maintain a mailing list of such names and addresses so submitted, and persons desiring to have their names and addresses retained on such list must resubmit the same by January 31. Persons who have not so resubmitted their names and addresses shall not be retained on such list, but they may submit their names and addresses at any time thereafter for inclusion on the list subject to the foregoing. In order to obtain a copy of a resume for a particular month, a person's name and address must be received not later than the fifth day of the month of publication of the resume. A fee of twelve dollars shall be payable for inclusion on the mailing list for a calendar year prorated at one dollar per month for a lesser period. A copy of the resume shall be furnished without charge to the state engineer and the appropriate division engineer.

SECTION 2. 37-92-302 (4), Colorado Revised Statutes 1973,

Capital Letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

is REPEALED AND REENACTED, WITH AMENDMENTS, to read:

37-92-302. Applications for water rights or changes of such rights - plans for augmentation. (4) The referee without conducting a formal hearing, shall make such investigations as are necessary to determine whether or not the statements in the application and statements of opposition are true and to become fully advised with respect to the subject matter of the applications and statements of opposition. The referee shall consult with the appropriate division engineer or the state engineer or both. The engineer consulted shall respond in writing within thirty days, unless such time is extended by the referee, which writing shall be filed in the proceedings and mailed by the water clerk to all parties of record before any ruling shall be entered or to become effective. A water judge who is acting as a referee in his division shall have the same authority as provided for the referee in this subsection (4).

SECTION 3. Part 3 of article 92 of title 37, Colorado Revised Statutes 1973, as amended, is amended BY THE ADDITION OF A NEW SECTION to read:

37-92-306.1. Relation back of priority date. (1) Except in the case of applications for adjudication of groundwater, notwithstanding the provisions of section 37-92-306, the filing date of an application for a water right or conditional water right involving the same source of water and derived from the same point of diversion from the same stream as a prior application for a water right or conditional water right filed in the preceding year by a different applicant may relate back to the date of filing of that prior application if:

(a) The subsequent applicant timely filed a statement of opposition to the prior application; and

(b) The subsequent application was made within sixty days of the prior application.

SECTION 4. 37-92-402 (4), (5), (6), and (7), Colorado Revised Statutes 1973, as amended, are amended to read:

37-92-402. Tabulations - abandonment. (4) On or before ~~July--1,--1981~~ JULY 1, 1983, the division engineer shall make such revisions, if any, as he deems proper in the aforesaid tabulation. In considering the matter raised by statements of objections, the division engineer may consult with interested persons. The division engineer shall consult with the state engineer and shall make any revisions in the tabulation determined by the state engineer to be necessary or advisable. If the division engineer determines such to be advisable or if requested by the objector in the statement of objection, the division engineer shall hold an informal hearing on the subject matter contained in said statement of objection. The revised

tabulation or, if there are no revisions, the original tabulation, signed by the division engineer and by the state engineer, shall be filed on or before ~~July 1, 1981~~ JULY 1, 1983, with the water clerk. A copy of such tabulation, together with any revisions, shall be available in the office of each division engineer and the offices of each water commissioner and each county clerk and recorder for inspection at any time during regular office hours, and the division engineer shall furnish or mail a copy to anyone requesting the same upon payment of a fee of five dollars. If the tabulation is revised, the division engineer, on or before ~~August 1, 1981~~ JULY 1, 1983, shall publish a notice that the tabulation has been revised and that the revision may be inspected or a copy thereof obtained as specified in this subsection (4). Such publication shall be made as is necessary to obtain general circulation once in each county or portion thereof which is in the division by means of one or more newspapers which, if feasible, are published in the division.

(5) Any person who wishes to protest the manner in which a water right or conditional water right is listed in the tabulation, including any revisions, or the omission of a water right or conditional water right from such tabulation shall file a written protest with the water clerk and with the division engineer not later than ~~January 1, 1982~~ JULY 1, 1984. Such protest shall set forth in detail the facts and legal basis therefor. Service of a copy of the protest or any other document is not necessary for jurisdictional purposes, but the water judge may order service of a copy of the protest or any other document on any person and in any manner which he may deem appropriate. The fee for filing such protest with the water clerk shall be twenty dollars.

(6) Commencing on the September or October term-day of 1982 1984 as the case may be in the respective divisions, pursuant to section 37-92-304 (1), and continuing for as long as may be necessary, the water judge of each division shall conduct hearings on the tabulation filed by the division engineer and any protests that have been filed with respect thereto. The hearings shall be conducted in accordance with trial practice and procedure; except that no pleadings other than the protest shall be required. The protestant shall appear either in person or by counsel in support of the protest. The division engineer shall appear in support of the tabulation, and, if requested by the division engineer, the attorney general shall represent the division engineer. The water judges of the various divisions shall arrange their hearings, if necessary in their discretion, to accommodate counsel and other persons who may be involved in hearings in more than one division. Any person who may be affected by the subject matter of a protest or by any ruling thereon shall be permitted to participate in the hearings, either in person or by counsel, upon timely entry of appearance. Such entry of appearance shall identify the portion of the tabulation with respect to which the appearance is being made. The water

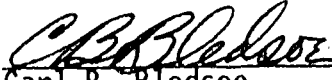
judge may continue the hearings as required to insure that all parties may be heard and their interests adequately protected, and in this connection the water judge shall permit such additional protests and order such service of notice and such additional publication of the tabulation or portions thereof as will serve the ends of justice, it being the legislative intent that the water judge shall have wide discretion in the conduct of such hearings so that the owners of water rights will be protected. After the hearings are concluded, the water judge shall enter a judgment and decree which shall either incorporate the tabulation of the division engineer as filed or shall incorporate same with such modifications and conditions as the water judge may determine proper after the hearings.

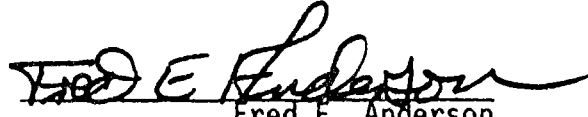
(7) If no protests have been filed, then promptly after ~~January 1, 1982~~ JULY 1, 1984, the water judge shall enter a judgment and decree incorporating and confirming the tabulation of the division engineer without modification.

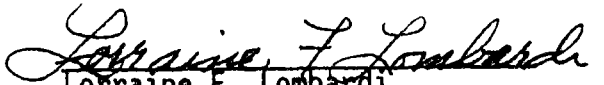
SECTION 5. Effective date. This act shall take effect July 1, 1981.


SECTION 6. Safety clause. The general assembly hereby

finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

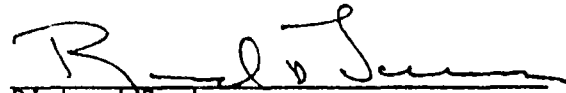

Carl B. Bledsoe
SPEAKER OF THE HOUSE
OF REPRESENTATIVES


Fred E. Anderson
PRESIDENT OF
THE SENATE


Lorraine F. Lombardi
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES


Marjorie L. Rutenbeck
SECRETARY OF
THE SENATE

APPROVED June 19, 1981 8:49 am


Richard D. Lamm
GOVERNOR OF THE STATE OF COLORADO

