

ANNUAL REPORT  
DIVISION NO. I  
1982 IRRIGATION YEAR  
NOV. 1, 1981 - OCT. 31, 1982

BY

JAMES R. CLARK, DIVISION ENGINEER  
EDWARD W. BLANK, ASSISTANT DIVISION ENGINEER

RICHARD D. LAMM  
Governor



JERIS A. DANIELSON  
State Engineer

**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

January 11, 1983

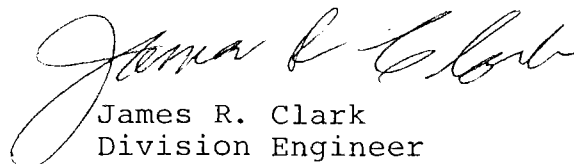
Mr. Jeris A. Danielson, State Engineer  
Division of Water Resources  
Room 818 - Centennial Building  
1313 Sherman Street  
Denver, Colorado 80203

Dear Dr. Danielson:

Please find submitted herewith the Annual Report for Irrigation Division No. I for the 1982 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/rh

INDEX

PAGE

Introductory Statement:

South Platte River	1-3
Republican River	3-4
Laramie River	4
1982 At A Glance	5
Comparative Stream Flows	6

<u>Personnel</u>	7-8
------------------	-----

Water Supply:

Snow Pack	9
Precipitation	10
Floods	11
Underground Water	12
Hydrographic Report - Harold Coffey	13-18
Transmountain Diversions	19
Reservoir Storage	20-33

<u>Agricultural - Crop Report</u>	34-47
-----------------------------------	-------

Compact, Court Stipulations:

South Platte Compact	48
Republican River Compact & Laramie River	49
Court Stipulation and Litigation	50-51

Dams & Reservoirs:

Plans, Specifications & Inspections	52
Livestock Water Tanks - Erosion Control Dams	53

Water Rights:

Tabulation and Abandonment	54
Water Division 1 - Cases Filed	55
Water Division 1 - Cases Decreed	56

Organizations:

Conservancy Districts	57
Groundwater Management Districts	58-59
Water User Organizations	60
Ditch and Reservoir Companies	61-92

Water Commissioner Summary:

Direct Flow Diversions and Storage Report	93-94
Annual Summary	95
1982 Calls on South Platte River	96-98

INDEX (Continued)

PAGE

Suggestions and Recommendations:

Staff Reorganization 99-100

Water Court 101

Miscellaneous:

Water News 102-115

Newspaper Clippings 116-172

1982 Legislation 173-177

## 1982 ANNUAL REPORT

### INTRODUCTORY STATEMENT

Division I 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 5,657 wells operating under augmentation plans and as alternate points of diversion for surface rights withdrew an estimated 600,000 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 3,165 wells and Central Colorado Conservancy District with a membership of 940 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 cost.

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 raw 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 yield, the whole river system supply is reduced by the amount of 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, 3,083,000 acres are in farm and ranch land with 537,000 acres under irrigation and 2,546,000 acres of dry land 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 1974 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 acres 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 1971 meadowland diversions totaled 24,290 acre feet, and trans-basin diversions to Water District No. 3 total 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.



## 1982 AT A GLANCE

Water Year 1982 began with above average temperatures and spotty precipitation. The mountains received good snow pack early, but the later storms failed to add much to the snow pack. The cool, windy weather caused much of the snow pack to disappear during March. Fortunately, reservoir storage was nearly normal because many of the crops had to be irrigated up with river flows being very low. Temperatures remained cool into June causing most crops to be approximately two weeks later than normal. Late summer rains provided the water to mature the crops and by September 14, all South Platte River calls were removed. Most crop yields were good, but prices were down considerably from last year.

Well usage was high and the search for wells operating without benefit of an approved plan for augmentation continued this summer. Many well owners have decided to join one of the available plans rather than fighting when costs were compared. Actions during the two previous years have forced compliance by most of the well users. The well owners not in compliance yet have proven to be very resourceful and difficult to catch.

Lawn Lake Dam on Fall River above Estes Park failed July 15 at about 7:00 A.M. The rapid release of 700 AF caused considerable erosion to the steep Fall River channel and considerable damage to the Town of Estes Park. Lake Estes was able to impound the flood waters preventing damage downstream. The dam appeared to fail in the area of the outlet pipe. At last count, four people were killed as they were caught by the wall of water coming down Fall Creek.

All field operations were shut down the last of February, March, and early April due to funding cut backs. Administrative efforts were severely hampered because all travel and long distance phone calls were eliminated. The normal operations of changing charts, checking headgates and reservoir levels, and investigating well replacements and court applications were eliminated. All water users were on the honor system. Operations were partially curtailed during January and part of February and April. This was not a pleasant time and hopefully it will not be repeated.

The Colorado Water Conservation Board committed 1.2 Million dollars to study the feasibility of four potential water development projects during the year. These included the Hardin Reservoir and either the Cache La Poudre or Grey Mountain projects in Division One.

The following tabulation reveals the percentage of the stream flows for 1982 as compared with the previous 15 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 1982 are from preliminary records.

COMPARATIVE STREAM FLOWS

	WATER YEAR			APRIL THRU SEPTEMBER		
	1967 thru 81 AVERAGE AC.FT.	1982 AC.FT.	1982 % OF AVG.	1967 thru 81 AVERAGE AC.FT.	1982 AC.FT.	1982 % OF AVG.
South Platte at Denver	251,710	165,700	66	202,800	126,800	63
South Platte at Henderson	363,900	230,900	63	267,000	161,200	60
South Platte at Ft. Lupton	372,300	247,400	66	265,000	167,500	63
South Platte at Kersey	785,000	491,600	63	520,700	294,500	57
South Platte at Weldona	536,400			360,500		
South Platte at Balzac	425,800	113,900	27	317,900	88,090	28
South Platte at Julesburg	503,000	146,500	29	289,100	64,170	22
Clear Creek at Lawson	95,730	102,000	107	82,000	90,650	111
Clear Creek at Derby	67,260			55,940		
Boulder Creek at Orodell	55,160	53,930	98	45,650	46,740	102
St. Vrain Creek at Lyons	87,610	86,600	99	81,070	81,600	101
St. Vrain Creek nr. Platteville	179,000	118,900	66	124,200	80,880	65
Big Thompson at Canyon	62,630	77,500	124	53,860	66,800	124
Big Thompson nr. La Salle	89,660	49,460	55	61,410	24,620	40
Cache La Poudre at Canyon	234,000	248,300	106	220,200	238,100	108
Cache La Poudre nr. Greeley	122,200	113,600	93	79,600	42,440	53

DIVISION I PERSONNEL

NAME	WATER DISTRICT	CLASSIFICATION		DATE OF LAST STEP CHANGE	MONTHS WORKED	BUDGETED	PERS. VEH.	MILEAGE	
		POSITION	GRADE-STEP					STATE VEH.	
Anderson, Dale	7	WC-C	59	6	8-1-81	12	18,660		
Bell, Ted		WRE-B	72	7	7-1-80	12			7,855
Bentley, Morgan	6	WC-C	59	3	6-1-82	12	12,176		
Blank, Edward		Sr. WRE	85	6	2-1-81	12			
*Blewitt, Lloyd	4	Sr. WC	63	7	12-1-73	12	1,759		
Brazelton, Don		Pr. WC	67	7-A	9-1-80	12	3,611		7,873
Campbell, Amy	23	WC-A	47	2	8-1-82	4	5,542		
Clark, James		Supv. WRE	89	7	7-1-79	12			8,797
Clayton, Joe	8-80	SR. WC	63	7	11-1-71	12			3,952
Coffer, Harold		SR. WRE	85	6	7-1-78	12			9,685
Cooper, Robert		WRE-C	77	6	1-1-79	12			16,467
Curry, Mark	23	WC-B	53	6	6-1-82	12	13,972		
Dalby, Les		WC-C	59	3	6-1-82	12			6,076
Davison, Arlyn	65-79	Sr. WC	63	7	1-1-75	12	3,952		
Delventhal, Keith	2	WC-A	47	6	5-1-81	7	9,457		
*Doherty, Mark	6	WC-A	47	1			6,335		
Durand, Carolyn	48	WC-A	47	4	6-1-82	2	1,911		
Gabriel, Don	1	WC-A	47	2	7-1-82	3	5,015		
Harman, Rachel		Typist B	37	7	11-1-81	12			
Hodgson, Mel	5	WC-A	47	6	4-1-80	7	7,073		
Honn, Mary Anne		Sr. SECR	54	6	7-1-81	12			
*Howard, Johathan		WC-A							
*Lee, Wayne	4	WC-A	47	6	10-1-77	7	4,787		
Lockhead, John		WRE-B	72	3	6-1-82	12			11,898
McDanold, Jim		WRE-C	77	6	7-1-82	12			11,297
Meehl, Paul	2	Sr. WC	63	7	1-1-74	12	13,043		
Morris, Sharon	23	WC-A	47	2	7-1-82	4	5,821		
Neutze, John	3	Pr. WC	67	7	7-1-79	12	586		
Palmer, Donald	5	Sr. WC	63	7	12-1-74	12	12,889		3,580
*Platte, Thomas	6	WC-A							
Renner, Fred		WC-A	47	1		3	213		
Salser, Kenneth	8-80	WC-B	53	6	5-1-82	12	11,619		
Samples, Bob	1	Pr. WC	67	7	4-1-77	12	91		
*Schieldt, Wayne		WRE-B	72	3	8-1-82	12			16,830
Sievers, George	3	WC-B	53	6	5-15-81	12	17,054		
Swedlund, Kent	64	WC-A	47	4	6-1-82	3	6,511		
VanGorden, Ralph	9	WC-B	53	7	7-1-70	12	9,453		

DIVISION I PERSONNEL

NAME	WATER DISTRICT	POSITION	CLASSIFICATION		DATE OF LAST STEP CHANGE	MONTHS WORKED	BUDGETED	PERS. VEH.	MILEAGE	
			GRADE-STEP	GRADE-STEP					STATE	VEH.
Vannorsdel, Carolyn	48	WC-B	53	6	6-1-81	6	7	6,139		
Wagner, Mabel	1	WC-A	47	4	9-1-82	12	12	21,133		
Watson, Elton	64	SR. WC	63	7	7-1-80	12	12	11,315		
Wittler, Randal		WC-B	53	2	7-1-82	12	12	1,244		
Wittler, Rodney		WC-A	47	1		3	3			

\*Blewitt - Retired 7-8-1982

\*Doherty - Started Employment 4-1-82

\*Howard - Resigned 4-15-82

\*Lee - Retired 10-31-82

\*Platte - Resigned 2-1-82

\*Schieldt - Transferred to Division 3 7-1-82

## WATER SUPPLY

### A. SNOW PACK

Although early season snow pack indicated supplies well above normal, snow pack had reduced considerably by late April. Snow pack for the South Platte Basin was 98 percent of average for the May 1 survey. By this time, nearly all snow below 9,000 feet elevation was melted and snow pack above 10,000 feet was near to slightly above normal. These conditions led forecasters to predict adequate early season water supplies with later season supplies deficient unless significant rainfall occurred. Tabulations of water supply outlook and snow measurement summaries as of May 1, 1982 are as follows:

#### WATER SUPPLY OUTLOOK\*

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

\*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	5	398	99
Boulder	4	621	83
Cache La Poudre	10	351	94
Clear Creek	5	591	106
Saint Vrain	3	755	84
South Platte	7	2,513	120

\*1963-1977 period

III

WATER SUPPLY

PRECIPITATION

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	0.33	14	4.65	145	1.71	74	2.65	151	2.30	137	1.97	150	108
CHEESMAN	0.39	22	3.56	186	4.43	326	3.09	120	4.47	191	2.92	270	171
CHEYENNE WELLS	0.95	73	4.24	158	4.35	185	1.79	63	1.26	50	3.44	239	122
DENVER AP WSFO	0.34	18	3.48	132	2.26	117	0.92	52	1.16	90	1.38	122	89
ESTES PARK	0.45	26	5.43	253	2.99	146	2.21	97	2.39	124	2.45	204	140
FORT COLLINS	0.38	21	4.98	172	4.34	203	4.86	331	0.45	29	2.23	232	159
FORT MORGAN	0.51	40	2.88	112	3.44	162	2.40	126	0.91	63	1.68	156	114
GREELEY	0.18	12	2.91	121	3.20	177	1.95	146	0.89	85	2.16	223	125
KASSLER	0.56	23	3.77	128	2.06	126	1.06	65	3.44	236	2.38	198	115
LAKWOOD	0.09	5	3.30	130	1.40	76	2.54	158	3.84	315	2.06	187	129
LONGMONT	0.10	6	3.62	143	2.38	126	1.58	131	1.22	118	1.93	197	118
PARKER	0.21	14	4.46	197	2.24	122	1.05	54	2.07	116	2.10	231	118
RED FEATHER LAKE	0.41		2.99		1.58		2.61		1.56		3.46		
STERLING	0.54	41	2.95	103	1.09	39	2.36	96	3.97	245	0.99	91	98
WRAY	1.33	70	8.26	261	6.15	196	0.51	18	1.45	60	2.35	160	134

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.) 10/1/81 to 9/30/82	INSTANTANEOUS	
		PEAK FLOWS DATE	C.F.S.
South Platte below Cheesman	118,700	8/28/82	813
North Fork at South Platte	160,300	7/28/82	790
South Platte at South Platte	291,400	7/31/82	1,190
Bear Creek at Morrison	28,410	8/14/82	193
Bear Creek at Sheridan	19,910	8/20/82	324
South Platte at Denver	165,700	5/12/82	3,220
Clear Creek at Lawson	102,000	6/28/82	895
Clear Creek at Derby			
South Platte at Henderson	230,900	5/13/82	5,050
Middle Boulder Creek at Orodell	53,930	7/02/82	510
South Boulder Creek at Eldorado	50,230	6/19/82	435
Coal Creek at Plainview	1,960	5/20/82	43
St. Vrain Creek at Lyons	86,600	7/27/82	1,590
St. Vrain at Platteville	118,900	5/13/82	1,350
Big Thompson at Canyon (1)	77,500	9/13/82	1,280
Big Thompson at LaSalle	49,460	9/14/82	1,150
Cache la Poudre at Canyon	248,300	6/30/82	3,170
Cache la Poudre at Greeley	113,600	7/01/82	3,150
South Platte at Kersey	491,600	6/25/82	12,620
South Platte at Balzac	113,900	7/03/82	2,170
South Platte at Julesburg	146,500	7/06/82	1,560

(1) Does not include 45,050 AF which was 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>
EXEMPT	2,631	2,182		
<u>NON-EXEMPT</u>	488	429	100	5,830



HYDROGRAPHIC REPORT  
DIVISION ONE  
1982

GENERAL

Water supply was nearly normal during the 1982 Water Year and this was reflected in hydrographic activity. The May 1, 1982 Soil Conservation Water Supply Outlook predict a near normal supply for the South Platte Basin. Surface Water Supply index for May 1 was -1.0 (near normal). Runoff was predicted to be in the 70%-90% range. After a very dry April, precipitation for the May-September period was considerably above normal. These factors resulted in a fairly high and sustained runoff, especially in the mountain streams measurement and record work, with normal maintenance and some minor repair work.

HYDROGRAPHIC ACTIVITY

The following measurements were made by Division One Hydrographers during the Irrigation Water Year (November 1, 1981 to October 31, 1982):

<u>HYDROGAPHER</u>	<u>NUMBER OF MONTHS</u>	<u>NUMBER OF MEASUREMENTS</u>
Bell, T. S	12	107
Coffer, H. R.	12	208
Cooper, R. E.	12	203
Lochhead, J. W.	12	352
McDanold, J. C.	12	134
Scheildt, W. I	8	145
Wittler, R. J.	3	0
		<u>TOTAL 1,409</u>

Total hydrographic mileage was 66,587. Significant contribution to the hydrographic efforts was made by our one summer employee who made some of the above measurements. Measurements by Glen Brees and Bud Walcher in Division One are not included above.

SUPPLEMENTAL HYDROGRAPHIC REPORTS

ANNUAL REPORT  
COLORADO-BIG THOMPSON PROJECT  
1982

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, 1981</u>	<u>November 1, 1982</u>	<u>Difference</u>
Green Mountain	84,610	133,630	+ 49,020
Willow Creek	8,540	7,850	- 690
Gramby	248,280	263,780	+ 15,500
Shadow Mountain	<u>17,390</u>	<u>17,710</u>	+ 320
Grand Lake			
Total Acre Feet	358,820	422,970	+ 64,150
<u>Eastern Slope</u>			
Mary's Estes,	5,150	3,100	- 2,050
Pinewood, Flatiron	2,060	3,890	+ 1,830
Carter	28,440	65,870	+ 37,430
Horsetooth	43,770	83,990	+ 40,220
Boulder	<u>2,450</u>	<u>3,800</u>	+ 1,350
Total Acre Feet	81,870	160,650	+ 78,780

Total active storage (total reservoir storage less dead storage was 583,620 acre feet on November 1, 1982). This compares with 438,630 acre feet on November 1, 1981 and with 909,431 acres 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	6,310
3	Hansen Supply Canal via Cache La Poudre Direct Delivery	55,250 13,550
4	Hansen Feeder Canal via Big Thompson St. Vrain Supply via Little Thompson Direct Delivery	29,770 7,020 10,410
5	St. Vrain Supply Canal via St. Vrain Direct Delivery	13,460 12,310
6	Boulder Creek Supply Canal via Boulder Creek Direct Delivery	8,580 <u>3,420</u>
	Total to all District, Including Replacement	160,080

Water Declared Available

Quota - 60 percent or 186,000  
Replacement - 3,080

TOTAL 313,520

MATERIAL BALANCE-PROJECT WATER DISTRIBUTION

ESTES PARK AREA

<u>INFLOW</u>	<u>NOV. 1, 1981-NOV. 1, 1982</u>	<u>TOTAL ACRE FEET</u>
<u>WESTERN SLOPE WATER</u>		
Alva B. Adams Tunnel	239,700	
<u>EASTERN SLOPE WATER</u>		
Wind River	800	
Big Thompson River	91,190	
Fish Creek	910	
Storage November 1, 1981	3,090	335,690

OUTFLOW

NOV. 1, 1981-NOV. 1, 1982

TOTAL ACRE FEET

Estes Park Water District	310	
Town of Estes Park	190	
Estes-Foothills Canal	283,400	
Big Thompson River	51,870	
Storage November 1, 1982	<u>3,100</u>	338,870

Apparent Gain 3,180 acre feetCARTER LAKE AREAINFLOW

Estes-Foothills Canal	283,400	
Storage Pinewood, Flatiron November 1, 1981	2,060	
Storage Carter November 1, 1981	28,440	
Dille Tunnel	<u>4,210</u>	318,110

OUTFLOW

Hansen Feeder Canal	112,580	
Big Thompson River	80,860	
St. Vrain Supply Canal	44,430	
Direct Diversion	4,830	
Storage Carter November 1, 1982	62,560	
Storage Pinewood, Flatiron, November 1, 1982	<u>1,910</u>	307,170

Apparent Loss 10,940 acre feetHORSETOOTH AREAINFLOW

Hansen Feeder Canal	107,400	
Storage November 1, 1981	43,770	151,170

OUTFLOW

Hansen Supply Canal	55,650	
Direct Delivery	13,150	
Storage November 1, 1982	<u>75,720</u>	144,520

Apparent Loss 6,650 acre feet

BOULDER AREA

<u>INFLOW</u>	<u>NOV. 1, 1981-NOV. 1, 1982</u>	<u>TOTAL ACRE FEET</u>
Boulder Feeder Canal	12,720	
Storage November 1, 1981	2,460	15,180

OUTFLOW

Boulder Creek Supply Canal	11,600	
Dry Creek Replacement	610	
Storage November 1, 1982	<u>3,800</u>	16,010

Apparent Gain 830 acre feet

SUMMATIONS

Estes Park Area	+ 3,180	
Carter Lake Area	- 10,940	
Horsetooth Area	- 6,650	
Boulder Area	+ 830	

Total Apparent Project Loss 13,580

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 1982 irrigation water year were as follows:

<u>MONTH</u>	<u>WATER DIVERTED ACRE-FEET</u>
November	0
December	0
January	0
February	0
March	0
April	0
May	5,170
June	21,450
July	7,520
August	4,760
September	5,210
October	<u>840</u>
<u>TOTAL</u>	44,950

Harold R. Coffey  
Senior Water Resource Engineer

III. WATER SUPPLY

TRANSMOUNTAIN DIVERSIONS

OCTOBER 1, 1981 - SEPTEMBER 30, 1982

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	C.F.S.	C.F.S.	AMOUNT DIVERTED	AC. FT.		
Wilson Supply Ditch	Sand & Deadman Creek	48	3	Divide Canal & Res. Co.	5-22-82	8-11-82	68	22.4	3,020					
*Deadman Ditch (Incl. in Wilson supply)	Deadman Creek	48	3	Divide Canal & Res. Co.	7-07-82	8-11-82	36	5.25	375					
Bob Creek Ditch	Nunn Creek	48	3	City of Greeley				0	0					
Columbine Ditch	Deadman Creek	48	3	City of Greeley				0	0					
Laramie Poudre Tunnel	Laramie River	48	3	Water Supply & Storage	5-04-82	8-23-82	93	95.9	17,680					
Skyline Ditch	West Fork Laramie River	48	3	Water Supply & Storage	6-04-82	7-20-82	29	29.3	1,690					
Cameron Pass Ditch	Michigan River	47	3	Water Supply & Storage	6-18-82	8-05-82	49	3.38	328					
Michigan Ditch	Michigan River	47	3	North Poudre Irr. Co.	5-31-82	9-10-82	88	13.0	2,270					
Grand River Ditch	Colorado River	51	3	City of Ft. Collins	6-01-82	9-28-82	120	88.7	21,120					
Eureka	Colorado River	51	4	City of Loveland				0	0					
Alva B. Adams Tunnel	Colorado River	51	4	U.S.B.R. - N.C.C.D	10-01-81	9-30-82	346	364	249,300					
Moffat Tunnel	Fraser River	51	6	City of Denver	10-01-81	9-30-82	362	122	87,840					
Jones Pass Tunnel	Williams Fork	51	6	City of Denver	10-01-81	9-30-82	330	13.3	8,680					
AKA August P. Gumlich or Williams Fork Tunnel	(Inc in Moffat Tunnel)													
Berthoud Pass Ditch	Fraser River	51	7	Farmers Res. & Highline	7-15-82	9-30-82	78	2.74	424					
Vidler Tunnel	Montezuma Creek	36	7	Herbert Young	7-23-82	9-30-82	70	4.46	619					
Roberts Tunnel	Blue River	36	23-8	City of Denver	10-01-81	8-06-82	209	164	67,910					
Boreas Pass Ditch	Indiana Creek	36	23	City of Aurora				0	0					
Hoosier Pass Ditch	Blue River	36	23	City of Colo. Springs	5-17-82	9-30-82	126	42.7	10,660					
Aurora Homestake	Homestake Creek	37	23	City of Aurora	10-01-82	9-30-82	288	39.6	22,590					

\* INCLUDED IN WILSON SUPPLY DITCH

RESERVOIR STORAGE DISTRICT NO. 1

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Empire	South Platte	6,892	30,683	26,895
Riverside	South Platte	22,387	56,087	36,086
Jackson	South Platte	18,527	33,567	22,252
Bijou No. 2	South Platte	225	0	0
North Sterling	South Platte	9,510	69,340	40,420
Prewitt	South Platte	14,180	21,380	20,970
Klug	Boxelder Creek	0	0	0
Bootleg	Boxelder Creek	0	0	0
Heart	Little Crow Creek	0	0	24
Giffin No. 1	Lone Tree Creek	13	8.8	40.2
Giffin No. 2	Lone Tree Creek	0	1.3	7.3
Adams & Bunker No. 1	Little Crow Creek	80	189	14
Adams & Bunder No. 2	Little Crow Creek	2	84	1.3
<u>TOTAL</u>		71,816	211,340.1	146,709.8



RESERVOIR STORAGE DISTRICT NO. 2

NAME	SOURCE	AMOUNT - A.F.		
		10-31- 81	4-30- 82	10-31- 82
Barr	South Platte	888	25,943	28,843
Horsecreek	South Platte	603	13,330	8,920
Prospect	South Platte	2,260	1,817	2,531
Lord	South Platte	0	0	0
Milton	South Platte	6,432	15,153	16,031
Lower Latham	South Platte	4,513	5,673	4,494
Standley	Clear Creek	26,752	26,679	42,439
Behrns	South Platte	40	15	12
Beulah	South Platte	45	20	54
Bowles No. 1	South Platte	8	0	5
Bowles No. 2	South Platte	30	25	35
Brantner No. 2	Brantner Gulch	3	0	0
Carlin	South Platte	0	3	10
Church Lower Lake	Dry Creek	80	75	120
Coal Ridge	Little Dry Creek	187	168	561
Fulton Waste	South Platte	450	100	300
German No. 2	Big Dry Creek	92	85	92
German No. 3	Big Dry Creek	5	4	3
German No. 4	Big Dry Creek	36	36	36
German No. 6	Big Dry Creek	20	20	6
German No. 8	Big Dry Creek	50	35	40
German No. 9	Big Dry Creek	15	12	12
German No. 12	Big Dry Creek	92	92	92
H.A. Smith	South Platte	50	25	20
Great Western	Clear Creek	2,317	1,363	2,979
Henry	South Platte	30	5	0
J.B. Smith	Todd Creek	120	130	150
Irland No. 1	South Platte	0	3	4
Irland No. 5	South Platte	4	3	0
La Dore	Seepage	367	367	360
Loloff	South Platte	110	145	145
Marshall	Brantner Gulch	30	30	35
Maul	First Creek	0	0	0
Meek No. 1	South Platte	25	5	40
Meek No. 2	South Platte	12	0	12
Mose Davis No. 2	South Platte	15	15	60
North Star	Big Dry Creek	120	129	129
Olds	South Platte	0	0	0
Parson-Holms	Second Creek	0	0	0
Thompson	Big Dry Creek	200	205	205

RESERVOIR STORAGE DISTRICT NO. 2 (continued)

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Matson	Big Dry Creek	12	15	10
Karsh	Big Dry Creek	5	0	0
Hamilton	Seepage	1	0	2
Francis	Gulch	6	1	6
Brunner	Seepage	20	20	53
Burnett-Deisher	Seepage	20	4	30
	<u>TOTAL</u>	46,065	79,750	108,876

RESERVOIR STORAGE DISTRICT NO. 3

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Fossil Creek	Cache La Poudre	0	3,133	1,509
Halligan	N FK Cache La Poudre	791	2,142	2,201
Clarks Lake	N FK Cache La Poudre	307	610	506
Indian Creek	N FK Cache La Poudre	1,460	1,906	1,183
N. Poudre No. 2	N FK Cache La Poudre	0	2,470	2,702
N. Poudre No. 3	N FK Cache La Poudre	2,533	2,533	2,206
N. Poudre No. 4	N FK Cache La Poudre	522	846	755
N. Poudre No. 5	Cache La Poudre	4,743	4,398	3,840
N. Poudre No. 6	Cache La Poudre	2,128	2,002	489
N. Poudre No. 15	N FK Cache La Poudre	3,522	3,014	4,304
Park Creek	N FK Cache La Poudre	3,636	6,619	6,852
N. Poudre Minor	N FK Cahce La Poudre	83	581	457
Cobb	Cache La Poudre	7,950	8,000	19,950
Douglas	Cache La Poudre	7,393	7,697	7,722
Res. No. 8	Cache La Poudre	7,546	7,189	9,464
Res. No. 8 Annex	Cache La Poudre	2,642	2,490	3,473
Windsor Res.	Cache La Poudre	4,607	11,123	14,150
Chambers	Wright, Trap & Fall	1,014	2,452	3,010
Long Draw	Long Draw	5,420	6,048	6,705
Black Hollow	Cache La Poudre	4,376	4,459	4,459
Curtis	Cache La Poudre	684	618	790
Kliver	Cache La Poudre	810	743	819
Lindenmeier	Cache La Poudre	266	178	513
Long Pond	Cache La Poudre	2,682	2,647	2,757
Richards	Cache La Poudre	677	519	664
Rocky Ridge	Cache La Poudre	3,303	3,323	3,483
W S & S No. 3	Cache La Poudre	3,723	3,288	4,040
W S & S No. 4	Cache La Poudre	812	866	790
Terry Lake	Cache La Poudre	4,847	5,279	4,805
Worster Res.	Sheep Creek	87	599	322
Timnath Res.	Cache La Poudre	5,284	8,300	7,306
Windsor Lake	Cache La Poudre	892	832	849
Barnes Meadow	Barnes Meadow	2,458	871	2,458
Big Beaver	Big Beaver Creek	0	0	0
Comanche	Big Beaver Creek	0	458	0
Peterson	Unnamed Creek	0	7	0
Seaman	N FK Cache La Poudre	2,231	1,612	2,529
Twin Lake	Trib. of Pennock	0	0	0
Claymore	Cache La Poudre	653	805	482
Dowdy	Pine Creek	784	720	952
Joe Wright	Joe Wright Creek	6,439	6,773	5,593
Eaton Law Res.	Cache La Poudre	103	15	67

RESERVOIR STORAGE DISTRICT NO. 3 (continued)

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Gray Lakes	Boxelder Creek	17	267	212
Panhandle Creek	Panhandle Creek	1,011	1,011	1,011
Portner	Fossil Creek	274	274	274
Seeley	Cache La Poudre	502	910	1,243
Warren Lake	Cache La Poudre	1,776	1,295	1,697
Woods Lake	Cache La Poudre	1,230	1,460	1,679
Horsetooth	Co. Big Thompson	51,927	121,168	84,182
	<u>TOTAL</u>	154,145	244,557	225,454

RESERVOIR STORAGE DISTRICT NO. 4

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Boulder & Larimer	Little Thompson	1,357	1,161	2,588
Boyd Lake	Big Thompson	21,116	22,791	31,060
Carter	Co. Big Thompson	31,745	100,162	65,870
Cemetary Lake	Big Thompson	350	308	350
Donath	Big Thompson	368	467	390
Fairport	Big Thompson	68	43	135
Geo. Rist (Buckingham)	Big Thompson	78	43	61
Hertha Res.	Dry Creek	497	1,432	869
Horseshoe Res.	Big Thompson	6,161	5,545	4,761
Lake Loveland	Big Thompson	12,106	7,658	11,172
Lawn Lake	Roaring Fork	0	0	0
Lon Hagler	Big Thompson	4,893	4,816	4,971
Lone Tree Res.	Big Thompson	4,000	7,299	7,119
Loveland Lake	Big Thompson	539	851	733
Mariano	Big Thompson	1,850	3,498	3,234
Oklahoma	Big Thompson	227	170	304
Rist Benson Res.	Big Thompson	346	310	335
Ryan Gulch Res.	Ryan Gulch	467	517	659
South Side Res.	Big Thompson	318	411	225
Welch	Big Thompson	5,199	4,038	5,749
<u>TOTAL</u>		91,685	161,520	140,585

RESERVOIR STORAGE DISTRICT NO. 5

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Beaver Lake	Beaver Creek	20	113	1,330
Foothills	St. Vrain	2,520	2,923	1,771
Highland No. 1	St. Vrain	873	844	824
Highland No. 2	St. Vrain	2,519	2,347	2,534
Highland No. 3	St. Vrain	897	862	1,084
McIntosh	St. Vrain	2,031	1,816	1,389
Pleasant Valley	St. Vrain	2,003	1,951	2,810
Oligarchy No. 1	St. Vrain	1,239	480	1,698
Union	St. Vrain	6,438	9,585	12,715
Left Hand Park	Left Hand	1,269	1,269	1,347
Left Hand Valley	Left Hand	471	1,323	3,678
Button Rock	N. St. Vrain	12,603	9,645	15,457
Thomas	St. Vrain			2,246
Lagerman	Left Hand			886
	<u>TOTAL</u>	32,883	33,158	49,769

RESERVOIR STORAGE DISTRICT NO. 6

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Marshall	South Boulder Creek	2,834	3,894	6,725
Great Western	Clear & Coal Creeks	2,328	1,551	3,003
Baseline	S&M Boulder Creek	2,816	3,430	3,430
McKay	South Boulder Creek	371	371	554
Albion	Albion Creek	1,111	1,111	1,111
Barker	M. Boulder Creek	8,711	3,514	8,338
Boulder	Big Thompson Pro.	3,758	6,470	5,099
Goose Lake	N. Boulder Creek	945	0	771
Cross	S&M Boulder Creek	30,281	16,609	39,139
Hillcrest	S&M Boulder Creek	1,985	1,800	2,047
Leggett	S&M Boulder Creek	1,435	1,297	1,481
Valmont	S&M Boulder Creek	6,919	6,488	7,061
Six Mile	Middle Boulder Creek	631	950	916
Silver	N. Boulder Creek	3,730	251	3,883
Panama No. 1	Middle Boulder Creek	2,196	3,765	3,854
	<u>TOTAL</u>	70,051	51,501	87,412

RESERVOIR STORAGE DISTRICT NO. 7

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Maple Grove	South Clear Creek	583	243	664
Ralston	Moffat via Gross	8,275	7,887	9,984
Tucker	Ralston	254	289	181
Long Lake	Ralston Creek	96	538	594
Standley	Clear Creek	510	27,064	42,166
	<u>TOTAL</u>		36,021	53,589



RESERVOIR STORAGE DISTRICT NO. 8

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Aurora Rampart	South Platte	978	741	1,020
Chatfield	South Platte	18,754	21,706	25,170
Cherry Creek	Cherry Creek	11,604	11,471	11,323
Marston	South Platte	14,699	14,576	9,739
McLellen	South Platte	3,870	3,548	5,326
Platte Canyon	South Platte	927	921	917
	<u>TOTAL</u>	50,832	52,963	53,495

RESERVOIR STORAGE DISTRICT NO. 9

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Soda No. 1 (West)	Bear Creek	96	227	415
Soda No. 2 (East)	Bear Creek	461	1,470	1,507
Kendrick	Bear Creek	265	265	200
Patrick	Bear Creek	847	1,019	800
Deane	Turkey Creek	34	34	50
Bergen No. 1 (East)	Turkey Creek	384	384	446
Bergen No. 2 (West)	Turkey Creek	567	567	684
Ward	Bear Creek	600	800	750
Henry Lake	Bear Creek	130	67	161
Harriman	Bear Creek	550	495	495
Bowles	Bear Creek	1,760	1,760	2,113
Johnston	Bear Creek	222	170	76
Tule No. 1 (Upper)	South Platte	84	84	63
Tule No. 2 (Lower)	South Platte	90	90	90
Grant A (West)	Bear Creek	0	0	0
Grant B (South)	Bear Creek	129	0	129
Grant C (East)	Bear Creek	75	0	92
Kingfisher Lake	Turkey Creek	15	10	85
Willow Sp. No. 1	Turkey Creek	55	40	105
	<u>TOTAL</u>	6,364	7,482	8,261

RESERVOIR STORAGE DISTRICT NO. 23

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Antero	S FK South Platte	12,901	15,838	15,937
Eleven Mile	S FK South Platte	94,654	97,779	70,607
Jefferson	Jefferson Lake			
Montgomery	Md FK South Platte and Hoosier Tunnel	3,723	445	4,354
	<u>TOTAL</u>	111,278	114,062	90,898

RESERVOIR STORAGE DISTRICT NO. 64

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31- 82
Julesburg Res.	South Platte	13,733	22,666	15,087
North Sterling	South Platte	10,560	69,480	23,450
Prewitt	South Platte	14,180	21,480	19,010
	<u>TOTAL</u>	38,473	113,626	57,547

RESERVOIR STORAGE DISTRICT NO. 80

NAME	SOURCE	AMOUNT - A.F.		
		10-31-81	4-30-82	10-31-82
Altura	South Platte	0	195	183
Cheeseman	South Platte	61,927	54,603	79,299
Lininger	South Platte	673	673	673
Wellington	South Platte	1,484	1,936	4,229
	<u>TOTAL</u>	64,084	57,407	84,384

1980 FINAL

COUNTY	PORTION OF COUNTY IN DIVISION 1	POTATOES			CORN FOR SILAGE			HAY		
		ACRES	YIELD cwt/ acres	PRODUCTION CWT X 1000	ACRES	YIELD TONS/ACRE	PRODUCTION TONS X 1000	ACRES	YIELD TONS/ACRE	PRODUCTION TONS X 1000
ADAMS					4,000	17.5	69	25,500	3.1	78.7
ARAPAHOE					1,000	15	15	6,500	1.35	8.7
BOULDER					4,400	17	75	24,500	2.8	68.6
CHEYENNE	39				507	8	4.1	2,457	1.75	4.3
CLEAR CREEK								100	1.0	0.1
DENVER										
DOUGLAS					300	8.5	2.6	13,500	1.6	21.6
ELBERT	69				345	14	4.8	21,045	1.1	22.9
GILPIN										
JEFFERSON					100			6,200	1.4	8.8
KIT CARSON					10,500	17.5	184	23,000	2.55	58.9
LARIMER					15,500	17	263	40,500	2.65	107.1
LINCOLN	26.5				265	16.5	4.4	8,718	0.75	6.5
LOGAN					11,000	21	231	45,500	2.95	134.6
MORGAN					10,500	22	231	34,000	3.15	106.7
PARK	87.4				2300	320	732			
PHILLIPS					3,000	19.5	58	19,665	0.85	17
SEDGWICK					4,500	22	99	9,300	2.75	25.4
TELLER	47.5							6,300	3.45	21.7
WASHINGTON								2,517	1.85	4.7
WASHINGTON					3,000	20	60	24,500	2.05	50.8
WELD					66,000	21	1,385	126,000	3.1	388.5
YUMA					6,700	20	135	32,500	3.45	111.8
TOTALS		5200	290	1,482	141,617	17.3	2,820.9	472,302	2.2	1,247.0

BARLEY 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		16,500	9,200	61.5	564	6,800	32.5	222			
ARAPAHOE		2,600	100	58.0	5.8	1,900	24.0	46			
BOULDER		7,200	6,000	56.0	336	700	31.5	22			
CHEYENNE	39	429	156	54.0	8.4	156	20.0	3.1			
CLEAR CREEK											
DENVER											
DOUGLAS		700	200	58.0	11.6	400	25.0	10			
ELBERT	69	1,380				1,035	30.0	31			
GILPIN											
JEFFERSON		500	100	70.0	7	300	20.0	6			
KIT CARPSON		5,800	3,000	52.5	157	1,700	20.0	34			
LARIMER		11,000	9,200	61.0	561	1,300	18.5	24			
LINCOLN	26.5	397	26	55.0	1.5	265	20.0	5.3			
LOGAN		1,600	600	58.5	35	900	25.5	23			
MORGAN		37,000	2,800	72.0	202	700	23.0	16			
PARK	87.4										
PHILLIPS		1,000	600	43.5	26	300	26.5	8			
SEDGWICK		1,500	300	60.0	18	1,100	22.5	25			
TELLER	47.5										
WASHINGTON		3,600	1,900	68.5	130	1,100	27.5	30			
WELD		38,500	27,000	63.5	1,710	9,000	23.0	209			
YUMA		3,100	1,300	51.5	67	1,300	27.5	36			
TOTALS		99,506	61,182	59.0	3,840	28,956	24.5	719.4			

BARLEY 1981 PRELIMINARY

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		17,000	6,000	60.5	363	10,500	23.5	16.5		
ARAPAHOE		4,000	200	56.5	11.2	3,600	25.5	92		
BOULDER		5,300	4,300	75.0	322	800	38.0	30.5		
CHEYENNE	39	663	156	56.0	8.7	468	24.5	11.4		
CLEAR CREEK										
DENVER										
DOUGLAS		900	100	56.0	5.6	700	30.5	21.5		
ELBERT	59	1,518	138	56.0	7.7	1,242	23.0	28.3		
GILPIN										
JEFFERSON		800	200	65.0	13	600	37.5	22.5		
KIT CARPSON		8,500	4,200	69.0	289	3,800	23.5	89.5		
LARIMER		24,500	15,100	70.0	1,055	8,900	41.0	365		
LINCOLN	26.5	503	26	56.0	1.5	397	22.0	8.7		
LOGAN		3,700	1,400	57.0	80	1,700	31.0	53		
MORGAN		8,500	6,000	67.5	406	200	31.5	63		
PARK	87.4	1,500	500	60.0	30	900	24.5	22		
PHILLIPS										
SEDGWICK		2,700	500	68.0	34	2,000	38.0	76		
TELLER	47.5									
WASHINGTON		4,800	2,500	56.0	140	2,000	25.0	50		
WELD		49,500	30,000	68.5	2,061	18,500	32.0	593		
YUMA		6,000	2,000	46.5	93	2,500	22.0	55		
TOTALS		140,384	73,320	58.1	4,920	58,807	29.0	1,597.7		



CORN 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		14,700	10,300	117.5	1,210	100	25.0	2.5	
ARAPAHOE		1,500	500	110.0	55				
BOULDER		12,000	7,300	120.0	875				
CHEYENNE	39	5,148	4,368	107.0	468	117	15.0	1.8	
CLEAR CREEK									
DENVER									
DOUGLAS		300							
ELBERT	69	760	140	100.0	14.0	207	18.5	3.8	
GILPIN									
JEFFERSON		200	100	120.0	12.0				
KIT CARPSON		70,700	56,000	101.0	5,650	1,000	19.0	19.0	
LARIMER		29,500	12,700	98.0	1,245	500	34.0	17.0	
LINCOLN	26.5	609.5	106	115.0	12.2	26	20.0	.53	
LOGAN		53,600	39,500	119.0	4,700	2,400	30.0	72.0	
MORGAN		82,000	70,000	121.0	8,455				
PARK	87.4								
PHILLIPS		75,400	62,000	140.0	8,690	10,000	32.0	318.0	
SEDGWICK		38,700	31,400	121.0	3,795	2,100	32.5	68.0	
TELLER	47.5								
WASHINGTON		31,600	27,500	134.0	3,685	1,000	28.5	28.5	
WELD		198,000	128,000	114.0	14,600	2,000	30.0	60.0	
YUMA		208,000	197,000	138.0	27,230	3,000	32.5	97.0	
TOTALS		828,203	646,914	117.2	80,696	22,450	29.0	688.0	

CORN GRAIN 1981 PRELIMINARY

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		15,700	11,900	115.0	1,370	100	30.5	3	
ARAPAHOE		1,600	1,000	120.0	120				
BOULDER		10,400	7,200	120.0	864				
CHEYENNE	39	5,538	4,992	125.0	624	78	20.0	1.6	
CLEAR CREEK									
DENVER									
DOUGLAS		400							
ELBERT	69	828	345	110.0	37.9	207	23.5	4.8	
GILPIN									
JEFFERSON		200	100	110.0	11,000				
KIT CARPSON		67,400	57,000	134.5	7,675	500	24.0	12.0	
LARIMER		31,400	16,000	143.0	2,290	500	36.0	18.0	
LINCOLN	26.5	689	371	110.5	41.1	53	20.0	1.1	
LOGAN		54,000	35,200	130.0	4,575	2,300	32.0	74.0	
MORGAN		83,500	76,000	145.5	11,060				
PARK	87.4								
PHILLIPS		89,500	80,000	141.0	11,625	7,000	46.5	325.0	
SEDGWICK		39,500	31,000	146.5	4,540	1,700	36.0	61.0	
TELLER	47.5								
WASHINGTON		362,000	32,000	155.0	4,960	1,500	26.0	39.0	
WELD		199,000	128,500	139.0	17,885	1,500	34.5	52.0	
YUMA		217,000	207,000	149.0	30,800	3,000	37.5	112.0	
TOTALS		1,180,655	688,608	130.9	109,467	18,438	30.5	703.5	

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	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT
ADAMS		1,000	1,000	1,700	17,000						
ARAPAHOE											
BOULDER		1,100	1,100	1,820	20,000						
CHEYENNE	39	156	156	1,800	2,808						
CLEAR CREEK											
DENVER											
DOUGLAS		400	200	1,800	3,600			78	300	234	
ELBERT	69	276						207	330	690	
GILPIN											
JEFFERSON											
KIT CARSON		7,200	7,000	1,700	11,900						
LARIMER		4,400	4,300	2,020	87,000						
LINCOLN	26.5	133	53	1,650	875			80	330	265	
LOGAN		6,800	6,300	1,700	107,000						
MORGAN		14,500	13,800	1,750	241,000			200	300	600	
PARK	87.4										
PHILLIPS		10,100	9,700	1,870	181,000			300	300	900	
SEDGWICK		57,000	5,000	2,100	105,000						
TELLER	47.5										
WASHINGTON		2,100	2,000	1,800	36,000						
WELD		25,500	24,500	1,920	471,000			500	300	1,500	
YUMA		12,200	12,000	1,830	219,000						
TOTALS		91,565	87,109	1,818	1,610,283			1,365	310	4,189	

DRY BEANS 1981 PRELIMINARY

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	ACRES HARVESTED	YIELD LBS/ACRE	PRODUCTION CWT
ADAMS		1,100	1,100	1,910	21,000						
ARAPAHOE											
BOULDER		1,600	1,400	2,500	35,000	200	550	1,100			
CHEYENNE	39	117	117	2,300	2,691						
CLEAR CREEK											
DENVER											
DOUGLAS		400	100	2,200	2,200	200	450	900			
ELBERT	69	207				138	276	552			
GILPIN											
JEFFERSON											
KIT CARSON		7,400	6,800	2,340	159,000	400	450	1,800			
LARIMER		5,300	5,200	2,460	128,000						
LINCOLN	26.5	80	27	2,200	583	53	450	239			
LOGAN		7,600	7,400	1,890	140,000	100	400	400			
MORGAN		16,700	16,300	2,470	403,000	200	500	1,000			
PARK	87.4										
PHILLIPS		7,100	6,700	2,150	144,000	300	470	1,400			
SEDGWICK		5,300	5,200	2,000	104,000						
TELLER	47.5										
WASHINGTON		2,100	2,000	2,100	42,000						
WELD		29,500	28,500	2,370	675,000	500	500	2,500			
YUMA		12,800	12,500	2,180	273,000						
TOTALS		97,304	93,344	2,219	2,129,474	2,091	450	9,891			

OATS 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		4,000	300	73.5	22.0	100	26.0	2.6		
ARAPAHOE		200				100	26.0	2.6		
BOULDER		2,300	200	67.5	13.5	100	37.0	3.7		
CHEYENNE	39									
CLEAR CREEK										
DENVER										
DOUGLAS		300				200	25.0	5.0		
ELBERT	55	1,242	69	57.0	3.9	414	21.0	8.6		
GILPIN										
JEFFERSON		200				100	25.0	2.5		
KIT CARPSON		900	300	55.0	16.5	100	20.0	2.0		
LARIMER		3,000	300	78.5	23.5	100	28.0	2.8		
LINCOLN	26.5									
LOGAN		3,500	500	66.0	33.0	500	20.0	10.0		
MORGAN		5,500	700	71.5	50.0	400	24.0	9.6		
PARK	87.4	175				87	35.0	3.1		
PHILLIPS		2,500	500	57.0	28.5	1,000	25.0	25.0		
SEDGWICK		3,500	500	56.0	28.0	300	28.0	8.4		
TELLER	47.5									
WASHINGTON		4,100	500	57.0	28.5	800	20.5	16.5		
WELD		12,000	1,300	77.5	101.0	1,500	27.5	41.0		
YUMA		1,200	200	55.0	11.0	200	25.0	5.0		
TOTALS		44,617	5,369	64.3	359.4	6,001	34.4	234.8		

SORGUM 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		1,200	300	55.5	16.7	100	25.0	2.5		
ARAPAHOE		4,000								
BOULDER		400	100	45.0	4.5					
CHEYENNE	39	7,137	390	58.5	22.8	2,496	26.5	66.3		
CLEAR CREEK										
DENVER										
DOUGLAS										
ELBERT	59	2,484	69	55.0	3.8	69	25.0	1.7		
GILPIN										
JEFFERSON										
KIT CARSON		18,000	4,400	58.0	255	4,000	29.0	116		
LARIMER		200								
LINCOLN	26.5	7,155	398	55.5	22	2,385	16.0	38.2		
LOGAN		3,700	200	44.5	8.9	1,100	25.0	27.5		
MORGAN		3,400	1,600	45.0	72	600	28.5	17.0		
PARK	87.4									
PHILLIPS		10,300	1,200	65.0	78	3,800	30.0	114		
SEDGWICK		2,100	100	46.0	4.6	700	28.0	19.5		
TELLER	47.5									
WASHINGTON		12,800	600	60.0	36	1,400	20.0	28		
WELD		3,200	500	40.0	20	100	30.0	3		
YOUMA		32,000	6,300	63.0	398	14,700	34.5	507		
TOTALS		270,076	16,157	53.2	942.3	31,450	26.4	940.7		

SORGUM GRAIN 1981 PRELIMINARY

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		1,700	200	65.0	13	600	31.5	19	
ARAPAHOE		5,000							
BOULDER		500	100	50.0	5				
CHEYENNE	39	7,020	351	64.5	22.6	2,652	39	103.4	
CLEAR CREEK									
DENVER									
DOUGLAS		400							
ELBERT	59	2,829	69	70.0	4.8	276	30.0	8.3	
GILPIN									
JEFFERSON									
KIT CARPSON		15,000	4,400	71.5	315	4,200	32.0	134	
LARIMER		200							
LINCOLN	26.5	8,745	106	65.5	6.9	2,412	30.0	72.3	
LOGAN		3,200	500	54.0	27	100	45.0	45	
MORGAN		3,500	2,300	47.5	109	500	35.0	17.5	
PARK	87.4								
PHILLIPS		8,200	600	65.0	39	5,800	38.0	220	
SEDGWICK		2,200	100	60.0	6	900	40.5	36.5	
TELLER	47.5								
WASHINGTON		13,500	500	68.0	34	4,500	32.0	144	
WELD		3,300	500	50.0	25	600	40.0	24	
YUMA		34,000	1,100	82.0	90	20,900	36.5	260	
TOTALS		109,294	10,826	62.5	666.3	42,900	35.8	1,584	

SPRING WHEAT 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		500	100	35.0	3.5	200	16.0	3.2	
ARAPAHOE		900				500	14.0	7.0	
BOULDER		400	200	60.0	12	100	16.0	1.6	
CHEYENNE	39								
CLEAR CREEK									
DENVER									
DOUGLAS									
ELBERT	69	138				69	17.0	1.2	
GILPIN									
JEFFERSON									
KIT CARSON									
LARIMER									
LINCOLN	26.5	100				100	17.0	1.7	
LOGAN		600	200	35.0	7	300	15.5	4.7	
MORGAN		100				100	15.0	1.5	
PARK	87.4								
PHILLIPS		700	200	32.5	6.5	300	18.5	5.5	
SEDGWICK									
TELLER	47.5								
WASHINGTON		200				100	16.0	1.6	
WELD		1,800	600	41.5	25	900	17.0	15.5	
YUMA									
TOTALS		5,438	1,300	40.8	54	2,669	16.2	43.5	



SUGAR BEETS

COUNTY	1980 FINAL					1981 PRELIMINARY				
	PORTION OF COUNTY IN DIVISION I PERCENT	ACRES HARVESTED	YIELD TONS/ACRE	PRODUCTION: X 1000	ACRES HARVESTED	YIELD TONS/ACRE	PRODUCTION X 1000	ACRES HARVESTED	YIELD TONS/ACRE	PRODUCTION X 1000
ADAMS		1,410	17.4	24.5	6,110	21.3	130			
APACHE										
BOULDER		1,500	15.2	23.7	1,190	21.6	25.7			
CHEYENNE	39	230	14.4	3.3	222	23.0	5.1			
CLEAR CREEK										
DENVER										
DOUGLAS										
ELBERT	69									
GILPIN										
JEFFERSON										
KIT CARSON		6,900	12.2	84.4	6,710	17.7	119			
LARIMER		5,550	19.4	107.5	5,880	23.8	140			
LINCOLN	26.5									
LOGAN		7,650	19.4	148.5	6,520	19.0	124			
MORGAN		11,200	20.1	225	8,740	22.9	200			
PARK	87.4									
PHILLIPS		6,050	17.5	106	5,830	20.2	118			
SEDGWICK		2,500	20.9	52.3	2,490	22.2	55.3			
TELLER	47.5									
WASHINGTON		3,030	18.2	55	2,240	24.1	53.9			
WELD		37,200	20.5	763	23,800	25.3	603			
YUMA		7,420	17.6	130.6	6,940	21.8	151			
TOTALS		90,640	16.1	1,724	76,680	21.9	1,725			

WINTER WHEAT 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	ACRES HARVESTED	YIELD bu/acre	PRODUCTION BUSHELS X 1000
ADAMS		205,000	4,100	46.0	189	196,900	34.5	6,797			
ARAPAHOE		87,000	1,400	49.0	68.5	78,600	26.0	2,045			
BOULDER		9,400	300	60.0	18	9,000	35.0	316			
CHEYENNE	39	83,460	1,950	45.5	108	75,270	29.5	2,222			
CLEAR CREEK											
DENVER											
DOUGLAS		6,300	300	46.5	14	5,600	25.5	143			
ELBERT	59	55,890	276	38.0	10.4	49,749	26.5	1,319			
GILPIN											
JEFFERSON		2,300	100	58.0	5.8	2,100	35.0	73			
KIT CARPSON		350,000	28,500	46.5	1,319	303,500	31.0	9,414			
LARIMER		16,800	600	60.5	36.2	15,400	36.0	553			
LINCOLN	26.5	51,675	186	45.0	8.32	50,164	30.0	1,506			
LOGAN		192,000	1,500	58.0	87	185,500	32.5	6,023			
MORGAN		86,000	9,200	56.5	518	75,000	35.0	2,651			
PARK	87.4										
PHILLIPS		146,000	1,400	57.0	80	142,600	39.0	5,564			
SEDGWICK		94,500	1,200	56.5	68	92,300	40.5	3,733			
TELLER	47.5										
WASHINGTON		450,000	7,000	54.0	377	436,000	32.5	14,176			
WELD		234,000	5,100	59.0	302	221,900	33.0	7,312			
YUMA		196,000	9,500	51.5	487	183,500	35.5	6,518			
TOTALS		2,266,325	72,612	52.2	3,696	2,123,083	32.8	70,365			

WINTER WHEAT 1981 PRELIMINARY

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		185,000	3,300	51.5	170	160,700	22.5	3,613		
ARAPAHOE		80,000	1,400	50.0	70	75,100	24.5	1,845		
BOULDER		8,000	200	50.0	10	7,600	33.0	250		
CHEYENNE	39	86,580	1,989	42.0	83.5	79,911	21.0	1,695		
CLEAR CREEK										
DENVER										
DOUGLAS		8,100	300	46.5	14	7,400	25.0	186		
ELBERT	69	48,645	345	48.0	16.6	45,195	26.0	1,176		
GILPIN										
JEFFERSON		2,000	100	47.0	4.7	1,600	23.0	37		
KIT CARPSON		369,000	26,500	51.0	1,353	323,500	30.0	9,634		
LARIMER		14,000	500	50.5	25.3	12,000	24.0	286		
LINCOLN	26.5	56,180	212	44.0	9.3	52,788	29.0	1,541		
LOGAN		186,000	1,900	44.5	84.5	176,100	32.0	5,593		
MORGAN		84,500	8,700	55.5	481	70,300	31.5	2,200		
PARK	87.4									
PHILLIPS		142,000	1,700	59.5	100	127,300	32.5	4,124		
SEDGWICK		86,500	1,300	52.5	68.0	80,700	32.5	2,604		
TELLER	47.5									
WASHINGTON		411,000	6,500	58.0	376	389,500	32.5	12,617		
WELD		229,000	5,300	46.0	244	203,700	27.5	5,590		
YUMA		170,000	8,400	45.5	384	158,600	35.0	5,592		
TOTALS		2,166,505	68,646	49.5	3,494	1,971,994	28.3	58,583		

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 111 days. The daily flow for the 197 days averaged 174 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)					
April	5,510	129	44	92.5	24
May	5,390	187	34	87.7	24
June	15,340	746	90	258	2
July	22,200	1540	36	361	18
August	3,650	223	18	59.3	26
September	12,080	657	31	203	13
October	3,770	151	107	136	4

1-14 incl.

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 1981 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	5,300	53.0
South Fork of Republican River	2,150	8.5
Arikaree River	4,060	26.4
Beaver Creek	0	0
	11,510 AF	21.3 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 acres 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 1982 the transmountain diversions under the Laramie River Compact totaled 19,740 acre feet of the 19,875 acre feet compact allowance. The meadowland diversions totaled 24,580 acre feet or some 83% of the allotment. Total Colorado diversions were 44,320 acre feet or 90% of the total allotment of 49,375 acre feet.

## Stipulations and Litigation

Judge Behrman has issued decisions in the following cases:

- 1) Craig Giffen's plan to selectively cut trees on his mountain property as a plan for augmentation was denied. Mr. Giffen had two parcels of land with an in-house-use well permit for each parcel. Mr. Giffen denied a plan to selectively cut trees on his property to reduce the normal evapotranspiration and make water available to offset the additional depletions from his proposed uses. Judge Behrman relied on the language in Southeastern Colorado Water Conservancy District v. Shelton Farms: "That this could lead to the undesirable destruction of vegetation with the possible disastrous results to the land resources of the state". This case has been appealed.
- 2) The case of Swiss Village Inn differed slightly in that there was a peat bog that was drained to provide so called "developed water" for augmentation purposes. Judge Behrman again relied on the Shelton Farms: "plan for augmentation" does not include the salvage of tributary waters by the eradication of phreatophytes, nor does it include the use of tributary water collected from land surfaces which have been made impermeable, thereby increasing the runoff but not adding to the existing supply of tributary water. This application was denied, but is being appealed.
- 3) The Three Bell's Ranch case involved the construction of a gravel pit. Judge Behrman determined that a well permit is not required when a pit is constructed and ground water is intercepted. However, any attempt to reclaim the area which makes a beneficial use of the exposed ground water would require a well permit. The 404 permit to mine gravel requires the applicant to indicate the steps to be taken to reclaim the land. The reclamation proposed by the applicant in this case meet the definition of putting water to beneficial use and a well permit is required.

## Supreme Court Litigation

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

## U.S. Reserved Rights Cases

- 1) The Federal Government's requirements to fulfill the national forest purposes of timber and watershed protection need to be determined.
- 2) The Federal Government has not claimed or proven the instream flow rights necessary to satisfy national forest purposes.
- 3) The Multiple-Use sustained yield Act of 1960 reserved no additional waters in the national forests for outdoor recreation, wildlife, or fish purposes.
- 4) There is no instream flow right for recreation boating in Dinosaur National Monument. A determination of whether the reservation purpose of the Monument includes preservation of fish habitats needs to be made. The Federal Government was given six

months to quantify its water claims in the Monument.

4) The appropriation date for national forest purposes was granted rather than the date of transfer to National Park status that the Water Court granted.

6) Reserved water rights do exist for public springs and water holes for the purposes of preventing the monopolization of water needed for domestic and stockwater purposes. The water court excluded tributary water from the reservation and this was remanded for modification.

7) The Geothermal Stream Act of 1970, 43 USC does not reserve water for purposes of power production.

State Engineer v. Central Yuma County Ground Water Management  
Dist v. Kerbs Ag, Inc.

The District Court denied the State Engineer a request for injunctive relief against Kerbs Ag, Inc. to curtail expansion of the historical consumptive use of Kerbs water rights within the basin. The Court dismissed the State Engineer's motion for a new trial because the motion had been before the Court for two years without prosecution. The Court approved the irrigation of additional acreage without considering whether the consumptive use was expanded.

The Supreme Court reversed and remanded to the District Court for a hearing in accordance with the directions expressed.

DAMS AND RESERVOIRS

PLANS AND SPECIFICATIONS  
AND  
INSPECTIONS

The Dam Safety Branch plans to submit a report, summarizing their activities, at the annual Division Engineer's Meeting. For this reason we will no longer report their activities, but will devote this section to any non-routine dam and reservoir operations of significant interest performed by Division One personnel. All such activities for 1982 were routine.



LIVESTOCK WATER TANKS - EROSION CONTROL DAMS

The total number of livestock water tanks and erosion control dams approved between November 1, 1981 and October 31, 1982 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	1	4.1	2	2.9
2				
3				
4				
5				
6				
7				
8				
9				
23				
48				
49	1	3.0		
64				
65				
80	1	2.5	1	1.6
<hr/>				
TOTAL	3	9.6	3	4.5

## WATER RIGHTS

### TABULATION

Under the provisions of Section 37-92-402, 1973 CRS, as amended, the water rights tabulation is to be revised and updated for filing with the Clerk of the Water Court by July 1, 1983. The protest period ends July 1, 1984. Our efforts have been concentrated toward correcting the tabulation as much as possible with updates running through December 31, 1982.

The legislature may make additional changes to this statute before the Court hearings start in late 1984.

### ABANDONMENT LIST

The abandonment list is also being updated by adding structures which no longer exist or have no record of diversions for some time.

Structures that have been on the abandonment list for which we receive objections have been removed and returned to the tabulation.

WATER RIGHTSWATER DIVISION NO. ONE - CASES FILED

<u>MONTH</u>	<u>NEW APPLICATIONS</u>	<u>STRUCTURES</u>
November	28	141
December	96	293
January	27	49
February	27	43
March	32	83
April	47	245
May	49	80
June	47	183
July	37	76
August	39	103
September	24	95
October	46	240
Yearly Totals	499	1,631

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 RIGHTSWATER DIVISION NO. ONE - CASES DECREED

<u>MONTH</u>	<u>JUDGMENT</u>	<u>NUMBER OF STRUCTURES</u>	<u>DISMISSALS</u>	<u>NUMBER OF STRUCTURES</u>
November	12	27	1	1
December	101	251	3	5
January	5	12	1	3
February	13	21	4	4
March	38	149	10	19
April	54	198	1	1
May	24	37	14	42
June	33	97	0	0
July	1	2	0	0
August	0	0	2	2
September	61	149	1	1
October	<u>69</u>	<u>105</u>	<u>0</u>	<u>0</u>
Yearly Totals	411	1,048	37	73

CONSERVANCY DISTRICTS

Central Colorado Water  
Conservancy District

Tom Cech  
Executive Secretary

2308 29th Street  
Suite 2  
Greeley 80631  
330-4540

Lower South Platte Water  
Conservancy District

Gary Frieauf  
Secretary-Treasurer

P. O. Box 1725  
Sterling 80751  
522-1378

Northern Colorado Water  
Conservancy District

Larry Simpson  
Secretary Manager

P. O. Box 679  
Loveland 80537  
667-2437

St. Vrain & Left Hand  
Water Conservancy  
District

Barbara Koch  
Secretary

500 Coffman  
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  
Box 52, Kirk, Colorado 80824  
(home) 362-4370 (school) 358-4288

Thomas J. Callahan, Attorney  
P. O. Box 191  
Wray, Colorado 80758

Central Yuma Ground Water Management District

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

854-3484 (office)  
854-3294 (home) Wray  
332-4155 (office)  
332-4151 (messages) 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  
P. O. Box 113  
Holyoke, Colorado 80734

854-3484 (home) Holyoke on Monday

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

332-4155  
332-4151 (messages)

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	410 E. Railroad 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 587-4432
6	District & Water Users	Ferrin Harsch Secretary	1239 Venice Street 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	410 East Railroad Fort Morgan 80701 867-2222
Bijou Irrigation District	John Samples Secretary	410 East Railroad 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	410 East Railroad 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	Ms. Pat Peterson Secretary	Kersey 80644
Illinois Ditch Company	William Farr President	Kersey 80644 356-3277
Jackson Lake Reservoir Company	Lindy Crumley Superintendent	410 East Railroad Ave. Fort Morgan 80701 867-8166
Johnson & Edwards Company	William Tramp President	Hillrose 80733 847-3492
Kiowa-Bijou Groundwater Basin	Donald McClary Attorney	317 Ensign Fort Morgan 80701 867-5621
Lower Platte & Beaver Irrigation Company	Roy Boyles Secretary	Hillrose 80733 847-3431
Morgan, Prewitt Reservoir Company	John Samples Secretary	410 East Railroad Fort Morgan 80701 867-2222
North Sterling Irrigation	Alex Michel Superintendent	Foote Building Sterling 80751 522-2025
Putman Ditch Company	Paul Ansley President	Masters 80547 645-2235
Pioneer Ditch Company	Barton Woodward President	Snyder 80750 842-2935

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 &amp; 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 &amp; 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
Burlington Ditch & Reservoir Land Company	Adolph Bohlender President	80 South 27th Avenue Brighton 80601 659-7373
Brighton Ditch Company	George Stieber President	11553 WCR 6 Fort Lupton 80621 659-2143
Coal Ridge Ditch Company	George Stieber President	8822 WCR 23 Fort Lupton 80621 857-2040
Delta Ditch Company	Bill Roth President	2210 Fern Avenue Greeley 80631 352-5409
Denver Water Board	William Miller Secretary	1600 West 12th Avenue Denver 80254
Farmers Independent Ditch Company	John Briggs Secretary	17787 WCR 25 Platteville 80651 737-2186
Farmers Reservoir & Irrigation Company	Adolph Bohlender President	80 South 27th Avenue Brighton 80601 659-7373 (office) 284-5431 (home)
Fulton Ditch Company	W. W. Gaunt Secretary	25 South Fourth Avenue Brighton 80601 659-3171
Gardeners Ditch Company	Syl DiGacomo President	6820 York Street Denver 80221 288-3369
German Ditch Company	Casper Sack President	Route 2, Box 183 Brighton 80601 452-8122
Godfrey Ditch Company	Jerome Loeffler President	Route 2, Box 82 LaSalle 80645 284-6430
Henrylyn Irrigation District	Lawrence Gerkin Manager	Box 141 Hudson 80642 536-4702
Highland Ditch Company	Mrs. George Jurgens President	25387 WCR 58 Greeley 80631 352-9343
Lower Latham Ditch	Victor Klein President	405 First Kersey 80644 352-5727
Lupton Bottom Ditch	Roy Miller President	900 WCR 24 Platteville 80651 785-2315
McCanne Ditch & Reservoir	Everett Kissler President	2308 29th, Suite 2 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	Donald Norgren President	Route 2, Box 283 Platteville 80651 785-2471
New Brantner Ditch	W. W. Gaunt Secretary	25 South Fourth Avenue Brighton 80601 659-3171
North Star Reservoir Company	Don Brand President	8601 WCR 8 Fort Lupton 80621 828-3801
Platte Valley Irrigation	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	John Alles President	24819 WCR 43 LaSalle 80645 353-0107
Walter & Roberts Ditch	Roy Lunvall President	1008 9th Greeley 80631 352-8730
Western Mutual Ditch	Edward Fritzler President	20730 WCR 31 LaSalle 80645 737-2256
Wellington Reservoir	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

DITCH AND RESERVOIR COMPANIES

Arthur Irrigation Company	William Stover Secretary	P. O. Box 523 Fort Collins 80522 482-3664
B. H. Eaton Ditch Company	Wayne Miller-Pres. Louise Kane-Secy.	Kodak-P.O. Box 98 Windsor 80550 686-7611
Boxelder Ditch Company	William Stover Secretary	P. O. Box 523 Fort Collins 80522 482-3664
Boyd Irrigation Company	Rodger Houtchens Secretary	1007 9th Avenue Greeley, 80631 353-9195
Cache La Poudre Irrigation Co.	Greg Jesson Secretary	Route 3, Box 772 Fort Collins 80521 482-7635
Crystal Lakes	Don Weixelman	P. O. Box 2167 3200 East Mulberry Fort Collins 80521 482-1847
Divide Canal & Reservoir Co.	Don E. Engel Secretary	106 Elm, Box 206 Eaton 80615 454-3377
Dixon Canyon Ditch & Reservoir Company	William Stover Secretary	P. O. Box 523 Fort Collins 80522 482-3664
City of Greeley	Bill Hargett	Civic Center Complex Greeley, 80631 353-6123, Ext. 307
Greeley Irrigation Company	Bill Putnam Secretary	353-1393
Jackson Ditch Company	Vivienne Woodward Secretary	P. O. Box 1584 2319 East Mulberry Fort Collins 80521 482-3433
Kern Reservoir & Ditch Company	C. W. Kirby President	P. O. Box 220 Windsor 80550 686-2363
Kitchell Reservoir Company	Alice Fisher Secretary	1020 Patton Fort Collins 80524 493-4726
Lake Canal Company and Lake Canal Reservoir Company	Mrs. Wm. McMurry Secretary	P. O. Box 204 Fort Collins 80521 686-2971 or 482-1632
Larimer County Canal No. 2 Irrigation Company	William Stover Secretary	P. O. Box 523 Fort Collins 80522 482-3664
Larimer & Weld Irrigation Co.	Don E. Engel Secretary	106 Elm, Box 206 Eaton 80615 454-3377

DITCH AND RESERVOIR COMPANIES

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

DISTRICT 3 SUPERINTENDENTS

Arthur Irrigation Company	John Meyer	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
	Bill McMurry (Hdgt.)	482-1632
Canal Number 3 Ditch Company	A. G. Brenkle	353-6014
Canon Canal	G. D. McGarvey	484-0541
Chaffee Ditch Company	John Meyer	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	Pete Van Putten	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)	482-7701
	Bill Johnson (Hdgt.)	482-7671
	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
	Richard Swinney	352-4468
Ogilvy Ditch Company	Richard Swinney	352-4468
Pleasant Valley and Lake	Don Brewster (Supt.)	482-8645
	Art Wendel (Ditch Rider)	221-0335
	Greg Jesson	482-7635
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
	Vacant (Black Hollow Res.)	
	Bill Haas	686-2366
Whitney Ditch Company	Bill Haas	686-2366
Windsor Reservoir and Canal	John A. Johnson (Supt.) Eaton	482-7701 454-3377
	Jim Johnson (Hdgt.)	482-3290
	Victor Reynolds (Windsor Res.)	686-2636



DITCH AND RESERVOIR COMPANIES

Arkins Water Association	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	Milo Osborn Secretary	1861 14th S.E. Loveland 80537 667-7320
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	L. V. French Secretary	Route 2, Box 23 Berthoud 80513 532-2374
Buckhorn Highline Ditch Company	Rhonda Lewis Secretary	Star Route, Box 320 Loveland 80537 667-1544
Buckhorn Water Users Association	Orlene Smith Secretary	P. O. Box 98 Masonville 80541 667-5359
Central Weld County Water District	Dale Olhausen Manager	115-18th Street Greeley 80631 352-1284
Consolidated Hillsborough Ditch	Don Davis Secretary	First 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	Loyd Stickelmeyer Secretary	P. O. Box 209 Longmont 80501
Diagonal Water & Sanitation Company	Jim Hudson Secretary	1200 28th Street Boulder 80303
Eagle Ditch Company	Donald 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
Fairport Reservoir Company	Nellie Verstraten Secretary	Route 1 Fort Collins 80521

WATER DISTRICT NO. 4 (continued)

DITCH AND RESERVOIR COMPANIES

Farmers Irrigation Ditch and Reservoir Company	F. Ray DeGood Secretary	P. O. Box 657 Loveland 80537 667-2131
Greeley-Loveland Irrigation	Ron Brinkman Secretary	803-23rd Avenue Greeley 80631
George Rist Ditch Company	W. R. Keirnes Secretary	Star Route, Box 450 Loveland 80537 667-1963
Handy Ditch Company	Louis Bein Secretary	Box 460 Berthoud 80513 532-2676
Hill & Brush Ditch Company	Jim Nelson Secretary	Route 1 Milliken 80543
Kershner Ditch Company	David L. Lewis Secretary	Star Route, Box 320 Loveland 80537 667-1544
Little Thompson Water District	Lovilo Fagan Manager	307 Welch Avenue Berthoud 80513 532-2096
Longs Peak Water Users Association	Joanne Macy Secretary	P. O. Box 714 Longmont 80501
Louden Irrigation Reservoir and Canal Company	Ralph Benson Secretary	925 West 33rd Loveland 80537 667-2027
Loveland & Greeley Reservoir Company	Ron Brinkman Secretary	808 23rd Avenue Greeley 80631 356-0334
Lykins Ditch	Tessie DeBuse Secretary	Route 3, Box 211A Longmont 80501
Minor Longdon Ditch Company	Mrs. Elmer Rutt	Route 1, Box 3 Berthoud 80513 587-2238
New Ish Ditch & Reservoir Company	Horace McCarty Secretary	P. O. Box 658 Longmont 80501
North Carter Lake Water District	Lovilo Fagan Secretary	307 Welch Avenue Berthoud 80513 532-2096
Osborn & Caywood Ditch Company	Donald J. Befus Secretary	716 So. Cnty. Road 1 Berthoud 80513 532-2340
Perkins Ditch Company	Arnold Friend Owner	Star Route Loveland 80537 667-5662
Rist & Benson Reservoir Company	Ralph Benson Superintendent	925 West 33rd Loveland 80537 667-2027
Rockwell Ditch Company	Max H. Schaal Secretary	Route 1, Box 50 Berthoud 80513 532-2004

WATER DISTRICT NO. 4 (continued)

<u>Ryan Gulch Reservoir Company</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 Ausenhus Secretary	203 East 5th Street Loveland 80537 667-6668
<u>Union Ditch</u>	Bill Smith Secretary	P. O. Box 98 Masonville 80541 667-5359
<u>Victory Irrigating Canal Co.</u>	Frank Bacon Secretary	Star Route Loveland 80537 667-4438
<u>Wind Cliff Water Association Inc.</u>	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 & Wesse	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 and Reservoir	Wayne Jurgens Secretary	512 4th Avenue Longmont 80501 776-5122
Cushman	Vernon Golden Secretary	12911 Hillcrest Drive 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 Private 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)

Highland	Larry Sieckmann Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Ide & Starbird Reservoir Company	George Sittner Superintendent	1148 Aspen Street Longmont 80501 772-4386
Independent Reservoir Company	George Reynolds Owner	2835 Mountain View Avenue 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	William Brackett Mayor	Lyons Town Hall Lyons 80540 823-6422
City of Longmont	James Cinea Engineer	City Service Center 100 South Sherman 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 Drive Longmont 80501 776-2135
Town of Mead	Harvey Potts Superintendent	Mead 80542 535-4557
Montgomery Private	Public Service Company Owner	P. O. Box 840 Denver 80201
Nelson	Wayne McGill Secretary	10075 North 75th Longmont 80501 776-9327
Niwot	Leroy Wertman Secretary	Quail Road Longmont 80501 776-7388

## WATER DISTRICT NO. 5 (continued)

DITCH AND RESERVOIR COMPANIES

Northwest Mutual Life	Robert Haselbush Owner	8197 St. Vrain Road Longmont 80501 776-2832
Oligarchy Ditch Company	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Peck Ditch Company	George Wagner Secretary	8310 Nelson Road Longmont 80501 776-5628
Pella Ditch Company	Robert Haselbush Superintendent	Route 3 Longmont 80501 776-1070
Pleasant Valley Reservoir Company	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Rice Ditch Company	Robert Seewald Secretary	11306 Quail Road Longmont 80501 776-0744
Rough & Ready Ditch Company	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Runyon Ditch Company	Willis Marlatt Owner	11229 North 75th Street Longmont 80501 776-0791
Smead Ditch Company	Warren Bashor Secretary	5475 Hygiene Road Longmont 80501 823-6474
South Flat Ditch Company	David Wagner Secretary	9925 North 95th Street Longmont 80501
South Ledge Ditch Company	Leonard Loukonen Secretary	Route 3 Longmont 80501 823-6268
Palmerton Ditch Company	William Schell Superintendent	802 Francis Street Longmont 80501 776-3475
Supply Ditch Company	Dan Grant Secretary	1st Nat'l Bank 401 Main Street Longmont 80501 776-5800
Swede Ditch Company	Charles Bliss President	5725 St. Vrain Road Longmont 80501 776-4865
True & Webster Ditch Company	Edward Darby Secretary	6354 Hygiene Road Longmont 80501 776-2722
Upper Baldwin Ditch Company	Dean Prieskorn Secretary	10115 Plateau Road Longmont 80501 776-2916

WATER DISTRICT NO. 5 (continued)

DITCH AND RESERVOIR COMPANIES

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

DITCH AND RESERVOIR COMPANIES

Andrews & Farewell Ditch Company	Barry Sinkey Secretary	8280 Valmont Drive Boulder 80301 666-8678
Autrey Eggleston	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
Baseline Land & Reservoir	Carol Nelson Secretary	4465 E. Cnty. Line Rd. Erie 80516 828-3715
Boulder Ditch (Town of Boulder)	City of Boulder Owner	P. O. Box 791 Boulder 80306 441-3240
Boulder & Left Hand Irrigation Company	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
Boulder & Weld County Ditch Company	Ethel Ziegler Secretary	831 17th Longmont 80501 776-2390
Boulder and White Rock Ditch and Reservoir Company	Charles Haley Secretary	401 Main Street Longmont 80501 776-5800
Butte Irrigation and Milling Company	Gene Sawhill Secretary	6967 Valmont Drive Boulder 80303 443-1858
Carr & Tyler Ditch Company	Art Stromquist Owner	12189 Oxford Road Longmont 80501 776-5832
Church Ditch Company	City of Broomfield	Broomfield 80020
City of Lafayette	City Manager	Lafayette 80026 665-9271
City of Louisville	City Manager	Louisville 80027 666-6565
Coal Ridge Ditch	Betty VanBanasterberg Secretary	Route 2, Box 162 Fort Lupton 80621 785-2850
Community Ditch	Adolf Bohlender President	80 South 27th Ave. Brighton 80601 659-7373
Consolidated Lower Boulder Reservoir & Ditch Company	Carol Nelson Secretary	4465 E. Cnty. Line Rd. Erie 80516 828-3715
Davidson Ditch & Reservoir Company	Helen Domenico Secretary	10315 Baseline Lafayette 80026 665-5691
Dry Creek Davidson	R. A. Martinson Secretary	3287 North 95th Street Boulder 80303 665-9071
Dry Creek No. 2 Ditch Company	C. D. Beitelshees Secretary	3395 North 95th Boulder 80303 665-9042



WATER DISTRICT NO. 6 (continued)

DITCH AND RESERVOIR COMPANIES

East Boulder Ditch Company	Robert Mason President	Public Service Company Denver 571-8203
Eggleston No. 1	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
Eggleston No. 2	J. B. Tellen Part Owner	4925 Twin Lakes Way Boulder 80301 530-4017
Enterprise Irrigation Ditch Company	Robert Munson President	7355 Valmont Road Boulder 80301 442-5330
Erie Coal Creek Ditch and Reservoir Company	Dave Oscarson President	Route 1 Erie 80516
Farmers Ditch Company	George Poor President	3016 Kalmia Boulder 80302 442-4448
Goodhue Ditch and Reservoir Company	Lois J. Waneka Secretary	11761 East Baseline Lafayette 80026 665-5157
Godding Daily & Plumb Ditch	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
Godding Ditch Company	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
Green Ditch Company	Roger Fell Secretary	P. O. Box 379 Niwt 80544 652-2516
Harden	City of Boulder Owner	Box 91 Boulder 80306 441-3240
Harris	K. Warenburg Owner	Louisville 80027 666-6768
Houck No. 2 Ditch	Milton Nelson Owner	2040 West Longs Peak Longmont 80501 776-1258
Howard Ditch Company	Bill Suittes Secretary	65 Manhattan Drive Boulder 80303 499-5400
Jones and Donnelly Ditch Company	Gene Sawhill Secretary	6967 Valmont Boulder 80301 443-1858
Kerr No. 1 & 2	J. D. Mayhoffer Owner	Louisville 80027 666-6180
Kinnear Ditch & Reservoir	Adolf Bohlender President	80 South 27th Avenue Brighton 80601 659-7373

WATER DISTRICT NO. 6 (continued)

DITCH AND RESERVOIR COMPANIES

Last Chance Ditch Company	City of Westminster	Westminster 80030 429-1546
Legett Ditch and Reservoir Company	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
Leyner-Cottonwood Consolidated	Walter Wise Secretary	838 South Gay Longmont 80501 776-3201
Lower Boulder Ditch Company	Carol Nelson Secretary	4465 E. Cnty. Line Rd. Erie 80516 828-3715
Martha M. Mathews	A.F. Bailey Part Owner	11975 Konosha Road Erie 80516 466-1789
Marshall Reservoir	Adolf Bohlender President	80 South 27th Avenue Brighton 80601 659-7373
Marshallville Ditch Company	Gertrude Anderson Secretary	7912 Arapahoe Road Boulder 80303 665-4178
McGinn Ditch Company	Alice Clyncke Secretary	7124 Baseline Road Boulder 80303 494-7198
McKay Reservoir	Adolf Bohlender President	80 South 27th Avenue Brighton 80601 659-7373
N. K. Smith & Tyler Ditch	Max Serafina Owner	1998 WCR 20 1/2 Longmont 80501 776-9222
New Anderson Ditch Company	William Light President	P. O. Box 791 Boulder 80306 441-3240
North Boulder Farmers Ditch Company	John Reich Secretary	P. O. Box 227 Boulder 80306 442-2413
Original Cottonwood No. 2 Ditch	Albert Kolb Secretary	7715 Arapahoe Road Boulder 80303 665-4854
Rural Ditch Company	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231
Silver Lake Ditch Company	Everette Long Secretary	3240 Broadway Boulder 80302 442-2353
Schearer Ditch Company	Russ Hawkins President	3 South Cherryvale Road Boulder 80303 494-7592
Smith & Emmons Ditch Company	Richard Frisk Secretary	735 Bowen Longmont 80501 776-5231

WATER DISTRICT NO. 6 (continued)

DITCH AND RESERVOIR COMPANIES

<u>Smith &amp; 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 &amp; Bear Creek</u>	City Clerk Secretary	201 East Simpson Lafayette 80026 665-9271
<u>South Boulder &amp; 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>	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	10701 Melody Drive Room 313 Northglenn 80234 451-8326
Croke Canal	Barbara Fulton Secretary	Farmers Reservoir Irrigation Company 80 South 27th Brighton 80601 659-7373
Colorado Agricultural	Louis Rullo Secretary	11621 Riverdale Road Denver 80233 452-8260
Cort Graves and Hughes	Sam Spano	6640 West 52nd Avenue Arvada 80002 424-4717
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	Robert Mason Manager	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
Reno Juchem & Swadley Longan	Robert Dextra President	Consolidated Juchem Ditch & Reservoir Co. 6501 West 60th Ave. Arvada 80003 424-4563

DITCH AND RESERVOIR COMPANIES

Rocky Mountain, Miles and Eskins and South Side	Lyle Bush Secretary	P. O. Box 507 Golden 80401 277-5596
United Water Company	Robert Mason Manager	Box 840 Denver 80202 571-8203
Wannemaker	Lyle Bush Secretary	P. O. Box 507 Golden 80401 277-5596
Welch and Agricultural	Dwight Neill Manager	Agricultural Ditch Reservoir Company 10080 West 27th Ave. Denver 80125 238-3606

CLEAR CREEK DITCHES AND SUPERINTENDENTS

	Eugene Cress	922-2815
Welch	Office	238-3606
	Jack DeBell	
Church	Superintendent	451-8326
Agricultural	Eugene Cress	922-2815
Coors Industrial	Coors	277-5596
Farmers Highline	Bill Baker	422-4658
Wannemaker	Coors	277-5596
Lee Stewart Eskins	J. O. Greenfield	279-2974
Croke	Jim Zeigler	424-6636
Rocky Mountain	Coors	277-5596
Reno Juchem	Robert Dextra	424-4563
Slough	Bob Rock	422-1316
South Side	Coors	277-5596
Ouelette	Robert Claxton	455-1231
Boyles	Vincent DeBell	429-0210
Kershaw	Allan Jones	429-1881
	Larry Firos	
	Ditch Rider	429-8893
	Robert Mason	
Fisher	Public Service	571-8203
	Art Eppinger	452-8254
Clear Creek & Platte	J. Fukaye	452-8208
		452-8275
	Roy McIntosh	452-8260
Colorado Agricultural	Louis Rullo	or 629-6958 (work)
		429-0139
*Manhart	George Ditolla	or 429-1835
Standley Reservoir	Jim Zeigler	424-6636
Ralston Reservoir	Wally Wilcox	279-4222
Consolidated Reservoir		233-5945

DTICH RIDERS

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

\*Ralston Creek

DITCH AND RESERVOIR COMPANIES

City of Aurora	Tom Griswold 695-7384	City of Aurora 1470 East Havana Aurora 695-7000
City and County of Denver	William Bates	Board of Water Commissioners 144 West Colfax Denver 623-2500, Ext. 269
City of Englewood	Vince Wertin	City of Englewood 3400 South Elati Englewood 761-1140, Ext. 519
J.O. Hill Reservoir	West Creek W & S District	Route 2, Box 154 Sedalia, 687-9067
Last Chance Ditch Company No. 2	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500, Ext. 270
Nevada Ditch Holding Company	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500, Ext. 270
Northern Colorado Irrigation Company	Robert Rosendale Superintendent	Board of Water Commissioners 144 West Colfax Denver 733-4292
Platte Water Company	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500, Ext. 270
Tri City Trust	Paul Johnson Secretary	Board of Water Commissioners 144 West Colfax Denver 623-2500, Ext. 270
West Creek Reservoir	West Creek W & S District	Route 2, Box 154 Sedalia 80135 687-9067

DITCH AND RESERVOIR COMPANIES

Bergen Ditch Company Grant Properties	William Grant Owner	333 Logan Street Denver 80203 777-0428
Bowles Ditch Company Grant Properties	William Grant Owner	333 Logan Street Denver 80203 777-0428
Evergreen Metro Dist.	Daniel Hydrick Manager	Water & Sewer P. O. Box 545 Evergreen 80439 674-4112
Harriman Ditch Company (AKA Arnett Ditch)	Gary Bishop Secretary	Board of Water Commissioners 1600 West 12th Avenue Denver 80254 623-2500
Hodgson Ditch Company	John E. Popham Secretary	2995 South Estes Street Denver 80227 989-4223
Independent Highline Ditch Company	Stan Harwood Owner	Morrison 80465 697-8008
Pioneer Union Ditch Company	William Wooley Secretary	6940 East Girod Avenue Denver 80203 756-2283
Ward Ditch Company	William Hodges, Jr. Secretary	1818 17th Street Denver 80202 892-9400
Warrior Ditch Company	Gary Bishop Secretary	Board of Water Commissioners 1600 West 12th Avenue Denver 80254 623-2500



DITCH AND RESERVOIR COMPANIES

Jefferson Lake Ditch Company	Ralph Johnson President	Jefferson 80456 836-2276
Tunnel Water Company Inactive	Vivienne Woodward Secretary	P. O. Box 1584 2319 East Mulberry Fort Collins, 80521
Water Supply and Storage Inactive	Vivienne Woodward Secretary	P. O. Box 1584 2319 East Mulberry Fort Collins, 80521

WATER DISTRICT NO. 48

DITCH AND RESERVOIR COMPANIES

Comet Ditch	Dave McGraw Manager	McIntyre Creek Ranch, Inc. Glendevey Route Jelm, WY, 82063 435-5737
Hills Ditch	Dave McGraw Manager	McIntyre Creek Ranch Inc. Glendevey Route Jelm, WY, 82063 435-5737
Homestead	Dave McGraw Manager	McIntyre Creek Ranch, Inc. Glendevey Route Jelm, WY, 82063 435-5737

WATER DISTRICT NO. 76

DITCH AND RESERVOIR COMPANIES

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

WATER DISTRICT NO. 49DITCH 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	Rex Tracey Owner	Wray 80758 332-5437
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)	John Yost, Ditch Superintendent	Laird 80739 332-5141
Pioneer Ditch (State)	John Yost, Ditch	Laird 80739
Pioneer Ditch (Line)	Superintendent	332-5141
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	17915 County Road 370 Sterling 80751 522-2416
Carlson Ditch Company	Hulbert Reichelt Secretary	Julesburg 80737 474-3400
Chambers Ditch	William Condon Owner	916 Fairhurst Street Sterling 80751 522-2460
Davis Brothers Ditch	Paris Accomasso Secretary	Atwood 80722 522-0629
Farmers Pawnee Ditch	Ralph Felix Secretary	P. O. Box 668 Sterling 80751 522-2259
Harmony Ditch No. 1	Ms. 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 Company	Allen R. Pyle Secretary	228 South Third Street Sterling 80751 522-5762
J. B. Ditch Company	Frank Manuello Owner	Iliff 80736 522-8096
Julesburg Irrigation	Herbert Bonesteel Secretary	Julesburg 89737 474-3737, 474-2189
Liddle Ditch Company	Don Liddle President	Ovid 80744 474-2300
Lone Tree Ditch	Maynard Sonnenberg Secretary	Box 1271 Sterling 80751 522-2404
Long Island Ditch	State Game, Fish & Park Division Part Owner	Crook 80726 886-2992
Low Line Ditch Company	William Hoel Secretary	22811 County Road 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 Company	Elmer Meier President	Ovid 80744
Powell & Blair Ditch AKA Proctor Water Co.	Allen R. Pyle Secretary	228 South Third Street Sterling 80751 522-5762

DITCH AND RESERVOIR COMPANIES

Prewitt Reservoir	Alex Michel Secretary	205½ Main Street Sterling 80751 522-2025
Ramsey Ditch Company	Don DeMers Secretary	Crook 80726 886-3662
Red Lion Ditch	Laurel Frame Secretary	Sedgwick 80749 463-8880
Schneider Ditch	James Williamson Secretary	Atwood 80722 522-1910
Settlers Ditch	Charles Atkinson	Crook 80726
South Platte Ditch	Charles Bartlett Secretary	Merino 80741 522-7586
South Reservation Ditch	James Parker, Jr. Secretary	Ovid 80744 463-5382
Springdale Ditch	Ralph Felix Secretary	P. O. Box 678 Sterling 80751 522-2259
Sterling Irrigation	Robert Giacomini Secretary	P. O. Box 1013 Sterling 80751 522-0751
Sterling No. 2 Ditch	Maynard Sonnenberg Secretary	P. O. Box 1271 Sterling 80751 522-2404
Tamerack Ditch	State Game, Fish & Parks Division Owner	Crook 80726 886-2992
Upper Harmony Ditch	Garold Marick Secretary	Crook 80726 886-3641

DISTRICT NO. 64 OFFICIALS

BRAVO

Pres.	Victor Ramey	17340 Cnty. Rd. 370	Sterling	522-0477
Secy.	John Held	17915 Cnty. Rd. 370	Sterling	522-2416
Rider	John Held	17915 Cnty. Rd. 370	Sterling	522-2416

CARLSON

Owner	Hub Reichelt		Julesburg	474-4300
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DAVIS BROTHERS DITCH

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

FARMERS PAWNEE CANAL

Pres.	Herb Vandemoer	225 Country Club	Sterling	522-3372
Secy.	Ralph Felix	P. O. Box 668	Sterling	522-2259
Rider	David Littler	13698 Corrine Road	Sterling	522-3101

HARMONY NO. 1

Pres.	James Roberts		Crook	886-3462
Secy.	Ms. 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 Cnty. Rd. 370	Sterling	522-2539 522-4577
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ILIFF & PLATTE VALLEY

Pres.	Leo Stieb	24153 Cnty. Rd. 55	Iliff	522-8173
Secy.	Allen Pyle	228 South Third	Sterling	522-5762
Rider	William Huey	24081 Highway	Iliff	522-2151

JULESBURG IRRIGATION DISTRICT & 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 First Ave.	Iliff	522-8088

LOWLINE

Pres.	Robert Fritzler	21575 Cnty. Rd. 74	Sterling	522-1376
Secy.	William Hoel	Route 2	Sterling	522-7312
Rider	Dave Littler	13698 Corrine Rd.	Sterling	522-3101

DISTRICT NO. 64 OFFICIALS (continued)

PEOPLES

Pres.	Tom DeSoto	24355 Cnty. Rd. 40	Sterling	522-2609
Secy.	Sam Karg	23690 Cnty. Rd. 40	Sterling	522-1469
Rider	Albert DeSoto	23895 Cnty. Rd. 40	Sterling	522-0423

POWELL

Pres.	Maynard Sonnenberg	406 Highland Drive	Sterling	522-1890
Secy.	Allen Pyle	228 South Third	Sterling	522-5762
Rider	William Huey	24081 Highway 138	Iloff	522-2151

SCHNEIDER

Pres.	Elmer Rasmussen	8917 Cnty. Rd. 370	Sterling	522-2322
Secy.	James Williamson	17880 Cnty. Rd. 16	Atwood	522-1910
Rider	Pert Accomasso	15465 Road 12	Atwood	522-6429

SOUTH PLATTE DITCH

Pres.	Keith Propst	2464 Cnty. Rd. 25	Merino	522-0090
Secy.	Charles Bartlett	13244 Cnty. 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.	Ralph Felix	P. O. Box 668	Sterling	522-2259
Rider	Alfred Leckler	13614 Cnty. Rd. 37	Sterling	522-1460

STERLING IRRIGATION COMPANY NO. 1

Pres.	James Davidson	1414 South Fourth Ave.	Sterling	522-4594
Secy.	Robert 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 Board		
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
Wellington Reservoir	Ron Heitman President	838-5496 737-2254



WATER COMMISSIONER'S SUMMARY

WATER TABULATION FOR 1982 BY SOURCE AND USE

A. DIRECT FLOW DIVERSIONS

ALL FIGURES IN ACRE FEET

B. STORAGE REPORT

11-1-81 to 10-31-82

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 - 10	2 - 13	3 - 1	3 - 2	3 - 3
1	200,170	104,484			12,160				5,655	5,443	34,895			6,852			
2	67,728	158,069		5,518				467									
3	52,629	42,709	10,009					93,394		8,178	5,256	998	235,422		22,338		
4	31,279	49,384	2,076					44		342	420		6,083				
5	16,365	42,578								727	7,140		656				
6	9,165	49,474	4,746					10		70	5,980	19,391					
7	247,839	47,672	2,378		19,071			28,886		63	948		704				
8	455	24,386	49,437		13,544					1,360	3	18,899	2,513		920		914
9	1,218	4,630	4,008								409						
23	17,827	28,312	3,809		1,058	2,335	176	1,780		5,458	638	28,809	3,413				
48		12,915															
49		7,093															
64	12,462	76,846		380	924			11,564	1,634		47,863		8,752		3,469		283
65		9,691															
80	26,817	3,680	4					2		8,063			18,992				
TOTAL	683,954	661,923	76,467	5,898	46,757	2,335	176	136,147	7,289	29,704	103,552	68,097	276,535	6,852	26,727	914	283

SOURCE USE

- |                       |            |              |
|-----------------------|------------|--------------|
| 1. River              | 0. Storage | 5. Rec.      |
| 2. Reservoir          | 1. Irr.    | 6. Fish      |
| 3. GW                 | 2. Mun.    | 10. Other    |
| 4. TB                 | 3. Comm.   | 13. Recharge |
| 5. NS                 | 4. Ind.    |              |
| 6. Collective         |            |              |
| 7. Trans. Dist. Basin |            |              |

	3 - 4	3 - 10	3 - 13	4 - 0	4 - 1	4 - 2	4 - 10	5 - 0	5 - 1	5 - 2	5 - 4	5 - 10	6 - 0	6 - 1	7 - 1	7 - 2
164								182	3,246			237	148,405	144,586		
				6,793		1,016	14,670	2,703								
				5,448	12,668	18	392									
				373	7,542											
				18,546		26,213		40		105	27	2,532			412	412
1,128				259		5,988	2,320									
292				3,159		19,824										
				23,117				329		6	3	265				
999	2,590	1,065					27,561									
2,419	2,754	1,065	57,695	20,210	53,059	44,943	3,254	3,246	30	3,034	148,405	144,586	412	412		

1982

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

Divisions	Non-Exempt Wells #	Ditch Structures Reported #	IRRIGATION			CURRENT YEAR Acres Irrigated	TRANS-MOUNTAIN	
			Direct Diversions To Irrigation	Diversions To Storage	Storage To Irrigation		Export	Div. to Div. Import
1	9,959 *	1415	661,923	683,954	103,552	1,776,655		473,431
2								
3								
4								
5								
6								
7								
TOTAL								

\* In additional 4,669 non-exempt wells are in designated Basins

Divisions	MUNICIPAL			INDUSTRIAL			RECREATION		ACTUAL STORAGE		# Decreed Applications	# Water Court Applications
	Direct Diversions	Diversions To Storage	Storage Releases	Direct Diversions	Diversions To Storage	Trans. Mtn. Hydro-Power	Storage - Wildlife Parks	For Year All Reservoirs	448	499		
1	76,467		68,097	46,757	57,695	248,500	2511	923,012				
2												
3												
4												
5												
6												
7												
TOTAL												

Calling Priority

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
06/18/1982	06/21/1982	Cheesman	06-27-1889	80	T. Fondi	80,23
06/19/1982	07/06/1982	Horse Creek	03-17-1911	2	B. Gerkin	7,8,9,23
06/22/1982	06/25/1982	N. Sterling	05-27-1914	1	A. Michel	2,3,4,5,6,7,8,9,23
07/06/1982	07/09/1982	Burlington	11-20-1885	2	A. Bohlander	2,8,9,23
07/07/1982	07/08/1982	N. Sterling	05-27-1914	1	A. Michel	2,3,4,5,6,7
07/08/1982	07/09/1982	Bijou	10-01-1888	1	R. Osborn	2,3,4,5,6,7
07/09/1982	07/27/1982	Ft. Morgan	10-18-1882	1	L. Crumley	2,3,4,5,6,7,8,9,23,80
07/12/1982	07/29/1982	Fulton	07-08-1876	2	B. Wagner	7,8,9,23,80
07/19/1982		Platteville Irr. & Mill CO	10-15-1873	2	J.	7,8,9,23,80
07/20/1982		New Brantner Ext. Ditch CO.	01-15-1881	2	A. Heit	7,8,9,23,80
07/27/1982	07/29/1982	Lower Platte & Beaver	09-04-1882	1	H. Stauch	2,3,4,5,6
07/29/1982	07/30/1982	Riverside	05-31-1907	1		2,3,4,5,6,7,8,9,23,80
07/30/1982	08/03/1982	Prewitt, Empire Jackson, River- side & Bijou #2	12-31-1929	1	M. Wagner	2,3,4,5,6,7,8,9,23,80
07/31/1982	08/05/1982	Burlington	11-20-1885	2	A. Bohlander	2,8,9,23
08/03/1982	08/05/1982	Upper Platte & Beaver	04-15-1888	1	B. Samples	2,3,4,5,6,7
08/05/1982	07/14/1982	Ft. Morgan Canal	10-18-1882	1	L. Crumley	2,3,4,5,6,7,8,9,23,80
08/10/1982	08/13/1982	Fulton	07-08-1876	2	B. Wagner	2,7,8,9,23,80
8/13/1982	07/14/1982	Highline	01-18-1879	8		23,80

Calling Priority

Date Call Initiated	Date Call Released	Structure Name	Appropriation Date	District	Person Placing Call	Districts Affected
10/19/1981	04/09/1982	Horse Creek	03-17-1911	2	B. Gerkin	7,8,9
11/13/1981		N. Sterling	06-15-1908	64	A. Michel	None
04/09/1982	04/12/1982	Evans #2	10-05-1871	2	L. Dickerson	7,8,9,23
04/12/1982	05/05/1982	Western Ditch	05-05-1866	2	E. Fritztler	6,7,8,9,23
04/19/1982	05/13/1982	Pawnee	06-02-1882	1	D. Littler	1,2,3,4,5
04/19/1982		Evans #2	10-05-1871	2	M. Martinson	
05/05/1982	05/10/1982	Fulton	07-08-1876	2	B. Wagner	7,8,9,23
05/10/1982	05/12/1982	Evans #2	10-05-1871	2	M. Martinson	7,8,9,23
05/13/1982	05/19/1982					No Demand
05/13/1982	05/17/1982	Marston Res.	04-01-1911	8	J. McLure	23
05/17/1982	05/19/1982	Riverside	05-31-1907	1		2,3,4,5,6,7,8,9,23
05/19/1982	05/19/1982	Bijou	10-01-1888	1	R. Osborne	2,3,4,5,6,7,8,9,23
05/19/1982	05/21/1982	Denver Intake	05-01-1875	8	J. McLure	80,23
05/19/1982	06/07/1982	Riverside	05-31-1907	1		2,3,4,5,6,7,8,9
06/07/1982	06/18/1982	Riverside	10-25-1910	1		2,3,4,5,6,7,8,9,23
06/11/1982	06/13/1982	Burlington	11-20-1885	2	A. Bohlander	6,7,8,9,23
06/13/1982	06/14/1982	Fulton	07-08-1876	2	B. Wagner	7,8,9,23
06/14/1982	06/14/1982	Brantner	01-15-1881	2		2,7,8,9,23
06/14/1982	06/15/1982	Burlington	11-20-1885	2	A. Bohlander	2,7,8,9,23
06/18/1982	06/18/1982			All Districts Contacted		No Demand



## SUGGESTIONS AND RECOMMENDATIONS

### STAFF REORGANIZATION

A number of administrative problems have become apparent over the past few years which seem to indicate there has been inadequate supervision of the water commissioners. In several instances a water commissioner has been expected to make decisions in the field without benefit of input from this office or the state office. The decisions made by the water commissioners have not always been correct and in some instances we have found "egg on our face".

Administration of the South Platte River system has become increasingly more complex as the number of decreed exchanges, transfers, and augmentation plans have increased. There are indications this trend will continue indefinitely. As the administration becomes more complex, the problems of the past will be multiplied many times.

I see the need to be able to spend more time with the commissioners in the field so that more direction can be given them as the problems arise. This will give us a better idea what is going on in the field and how the commissioners are doing their job. This will also give us a better understanding of the districts and the decrees.

I am proposing an organization whereby the districts will be split up between my assistants and myself so that we can spend some time with each commissioner every month to provide supervision more directly. Ultimately I would like to have the organization set up so that my assistants would spend the time in the field with the commissioners allowing me the opportunity to coordinate their efforts from the office. This will require an additional assistant to cover the district I am planning to cover initially. In addition, I would like the water court coverage to be split up among the assistants so that each can gain experience with the water court as well as water administration.

I want to become more involved in the dam inspections within Division One. Harold Coffey's job description includes dam inspections and to date he has not been utilized in this capacity as much as I would like. This will take some coordination with the Denver staff but I think it can be accomplished and will be well worth the effort.

The administration of wells continues to occupy a large portion of the commissioners time during the summer. Field checks of court applications for HB 1504 consultations also require a great amount of commissioner time year round. I feel the commissioners would benefit from more guidance and supervision in these areas also.

We have a number of new people at this time which I feel would adapt well to new programs and ideas. I also feel this plan would benefit the new commissioners by giving them additional training and supervision early in their tenure.



## 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 499 new applications filed in Water Year 1982 involving 1,631 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 411 cases involving 1,048 structures and 37 cases were dismissed involving 73 structures during Water Year 1982.

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.

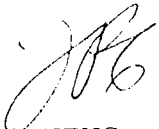


**DIVISION OF WATER RESOURCES**  
WATER DIVISION I

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

December 7, 1982

MEMORANDUM

TO: JAY JONES  
FROM: JIM CLARK   
SUBJECT: OCTOBER WATER NEWS

October temperatures fell to below normal and the precipitation of 0.89 inches was below normal. The water year precipitation was 112% of normal with the major portion received during the late summer. Most crops have been harvested but some corn remains in the field and sugar beet harvest is in full swing.

Reservoir storage at the beginning of November was 142% of normal reflecting the above average precipitation during September. There has been no call since September 14th. River flows at Kersey were 64,000 AF and at Julesburg were 6500 AF.

Mary Anne Honn is transferring to the Denver Office and will be working in the Ground Water Section. Mary Anne's husband accepted a position with the Littleton Planning Department. We wish them both well. Our loss will be the gain of the Ground Water Section.

JRC/EWB/rh.




**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 3, 1982

MEMORANDUM

TO: Jay Jones  
FROM: Jim Clark   
SUBJECT: September Water News

September temperatures fell to below average while precipitation (2.14 inches) was well above average. The stormy weather hit while many acres of beans and hay were on the ground causing some crop damage. The harvesting of silage was delayed as well. There were even some reports of snow in the high country.

Reservoir storage at the beginning of October was 123 percent of normal. The river call went to no demand on September 14th and several reservoirs began filling. River flows at Kersey were 70,600 AF and at Julesburg were 11,600 AF.

Elton Watson has had to have a second cornea transplant. Something was wrong with the first transplant which did not allow him to see clearly. The second transplant appears to be doing well and his sight is improving.

Amy Campbell has recovered from the injuries suffered when kicked by her horse. At last report, she was again riding bulls trying to retain her title of champion bull rider.

Judge Behrman has issued his decision in the Three Bell's Ranch case. He determined that a well permit is not required when a gravel pit is constructed that intercepts ground water. However, any attempt to reclaim the area which makes a beneficial use of the exposed ground water does require that a well permit be obtained. The 404 permit requires the land to be reclaimed so the gravel pit operator appears to be forced into requesting a well permit and obtaining approval of an augmentation plan in order to construct a gravel pit that exposes ground water.

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

September 21, 1982

MEMORANDUM

TO: Jay Jones  
FROM: Jim Clark *JRC*  
SUBJECT: August Water News

Temperatures were somewhat above average during August giving the crops an extra growing boost. The precipitation at Greeley was 0.89 inches (85 percent of average) but some areas in Division One received more than an inch of precipitation.

Reservoir storage at the beginning of September was 101 percent of normal. River flows at Kersey were 40,500 AF and at Julesburg were 3,800 AF for August.

Elton Watson had a cornea transplant and is doing fair in his recovery. Amy Campbell was kicked by her horse and spent approximately two weeks in the hospital. We wish both a speedy recovery.

Our condolences go to the Tom Platt family. Tom died following a heart attack suffered while playing golf. Tom was water commissioner for District 6 for a number of years and even after retirement was available to provide administrative advice when needed.

Congratulations to Mr. and Mrs. Jim Clark on the birth of their son, Halden James, who was born August 19, 1982.

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

August 24, 1982

TO: Jay Jones  
FROM: Jim Clark *JRC*  
SUBJECT: July Water News

The average July temperature was approximately one degree below normal while the precipitation at Greeley (1.95 inches) was 145 percent of normal. This brings our water year precipitation to just over normal. Precipitation amounts varied greatly over the division. The warmer temperatures have caused the crops to really start growing but they are still somewhat behind schedule.

Reservoir storage at the beginning of August was 101 percent of normal. River flows at Kersey were 88,600 AF and at Julesburg were 26,500 AF. The river call has ranged from 10-15-1873 to 5-31-1907 for the month.

The big event for the month was the failure of Lawn Lake dam on Fall River above Estes Park on July 15 at about 7:00 a.m. The rapid release of approximately 700 AF caused considerable damage as the wall of water hit the town of Estes Park. Lake Estes was able to impound the flood waters preventing damage down stream. Investigation into the cause of the failure is still under investigation.


Consolidated Ditches filed a motion for permanent injunction to enforce the stipulation against the City of Northglenn. The stipulation provided that Northglenn could utilize water stored in Standley Lake Reservoir as long as Northglenn would continue to utilize the Denver Metropolitan Sewage District Treatment Plant, which releases to the South Platte River. Stipulation would be in effect until December 31, 1982 or until the exchange with the Farmers Reservoir and Irrigation Company is implemented. Northglenn severed its connection to the Metro sewer treatment plant on June 2, 1982. Judge Behrman granted the motion on July 20, 1982 and was confirmed by the Supreme Court on July 22, 1982.



**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

July 22, 1982

TO: Jay Jones  
FROM: Jim Clark   
SUBJECT: June Water News

June temperatures in Greeley were cool with the average temperature three degrees below normal while the precipitation of 3.2 inches was well above average. The cool weather caused plant growth to be slower than expected for this time of year and some crops are two to three weeks behind the average year. This may be critical if an early frost is encountered.

Reservoir storage at the beginning of July was 106 percent. The late June precipitation eased the demand by irrigators and allowed additional storage in the reservoirs. River flow at Kersey was 68,800 AF and at Julesburg was 10,300 AF.

The State Engineer and Division Engineer through the Attorney General filed a motion to dismiss in several cases asserting that the procedures of the Water Rights and Determination Act of 1969 did not apply to nontributary ground water. This motion was filed to show consistency with the arguments being made before the Supreme Court in the Huston cases. Judge Behrman had earlier determined that cases involving nontributary ground water would be decided routinely until such time as the Supreme Court would enter a decision which would modify the water court's feelings. The motion to dismiss was denied in that Judge Behrman felt this was a water matter and he did have jurisdiction.

A very informative meeting was held the end of June when representatives from all seven divisions as well as the State Engineer, his deputies and Mr. Bill Paddock from the Attorney General's office got together at Monarch Lodge. Administrative problems, plans for augmentation, ground water policies and referee consultations were discussed in an attempt to get some new ideas and become more standardized in our approach in dealing with the problems encountered.

Fred Renner and Rodney Wittler have joined us for the summer and work out of the office.



**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

June 11, 1982

MEMORANDUM

TO: Jay Jones  
FROM: Jim Clark *ed for Jim*  
SUBJECT: May Water News

Division One received a good general rain the middle of May which brought much needed moisture to the area. However, there were some heavy local showers with hail late in the month that produced a lot of damage to some young crops just up and to some of the winter wheat and alfalfa. The cooler weather brought by the storms has stayed with us and has slowed plant growth considerably. There has been talk of this being a short, cool summer and the past two weeks fits that pattern.

Reservoir storage at the beginning of May was 636,460 AF or 96 percent of average for May first. Storage at the end of May was 648,050 AF or 95 percent of average for June first. Some water had to be released from storage for early irrigation but the storm runoff allowed additional storage in some of the reservoirs. River flow during May at Kersey was 26,000 AF and at Julesburg was 4,100 AF.

The budget expenditures are being watched very closely in an effort to get as much coverage as possible from the allotted funds. There are some areas of our administration that could not be accomplished due to the shortage of funds but maybe next year will show some improvement.

We welcome Alyson Johnson to Division One. Alyson is the newest member of the Water Clerk staff and one of her first big jobs is typing the May Resume. We are glad to have you with us Alyson.

Judge Behrman has issued a Memorandum of Decision in the matter of Craig A. Giffen. Mr. Giffen owns two parcels of mountain property and was able to obtain an inhouse use permit for each parcel although he desired domestic permits. He devised a plan whereby he would selectively cut trees from his property to reduce the normal evapotranspiration on the two lots. The new water made available to the stream system would then be used to offset the additional depletions caused by the proposed outside uses of the two wells. Judge Behrman relied on the language in Southeastern Colorado Water Conservancy District v. Shelton Farms: "that this could lead to the undesirable destruction of vegetation with possible disastrous results to the land resources of the state". The application was denied.

The case of Swiss Village Inn differed slightly in that there was a peat bog that was drained to provide so called "developed water" for augmentation purposes. Judge Behrman again relied on the Shelton Farms: "plan for augmentation" does not include the salvage of tributary waters by the eradication of phreatophytes, nor does it include the use of tributary water collected from land surfaces which have been made impermeable, thereby increasing the runoff but not adding to the existing supply of tributary water. This application was also denied. Appeal of both cases is expected.

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

May 7, 1982

MEMORANDUM

TO: Jay Jones  
FROM: James Clark   
SUBJECT: April Water News

The lack of precipitation has made it necessary to irrigate the corn just to get it to sprout. Greeley only received 0.18 inches of precipitation for April (12 percent of normal) and the water year precipitation is only 1.66 inches (46 percent of normal). The mountain snowpack is slightly above normal but the dry winds can still reduce that before the runoff starts. The generally cool temperatures have slowed the melting and all stream flows are down. River flow at Kersey was 42 cfs on April 30th. A good general rain would be a significant help.

Reservoir storage at the beginning of April was 102 percent of the 10 year average. The early requirements for direct flow irrigation and low stream flows have made it necessary to release some water from storage, especially to fill the municipal needs. River flow at Kersey was 5,200 AF for April and 7,200 AF at Julesburg.

The reinstatement of funds allowed the water commissioners to get back on the road on a limited basis. The dry weather in April would have made life very difficult for everyone with no travel or phone money.

The Water Commissioners meeting was held April 6th. Jeris Danielson, Hal Simpson, and Walt Knudsen attended the meeting and made worthwhile presentations. We thank them for showing an interest in our Division.

Peggy Criswell, assistant clerk at the water court, has decided she would rather be in Texas with her husband than here in Colorado. We will miss Peggy and her Texas smile. 😊



**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

April 12, 1982

MEMORANDUM

TO: Jay Jones  
FROM: James R. Clark *JRC*  
SUBJECT: March Water News

The March weather in Greeley was quite warm with the average temperature nearly 6 degrees warmer than the ten year average and the recorded precipitation was only 63 percent of the ten year average (0.47 inches). The late March winds were really severe as nearly every movable object blew away and much of the real estate in eastern Colorado is now in Kansas or Nebraska. The latest snow surveys indicate the snowpack is average to slightly below average for April 1.

Reservoir storage at the beginning of March was 99 percent of normal. Water continued to be diverted to storage during the month although the warm dry weather caused many farmers to get anxious about starting the direct flow water. River flow at Kersey for March was 28,000 AF.

The shutdown of field operating due to funding cutbacks severely hampered our administrative efforts. The normal operations of changing charts, checking headgates and reservoir levels, and investigating well replacements and court applications came to a halt and everyone was on the honor system. Some time will be required to evaluate the full effects of the cutbacks but we know that this was not a pleasant time.

We would like to congratulate Wayne and Sharon Morris on the birth of Jacquelyn. At last report, mother and daughter were doing fine. Sharon is deputy water commissioner in District 23.




**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

March 9, 1982

MEMORANDUM

TO: Jay Jones  
FROM: James R. Clark   
SUBJECT: February Water News

The coldest weather of the winter occurred during early February but late February was quite balmy with temperatures in the 70's. Precipitation in Greeley was far below average with only 0.06 inches recorded at UNC.

Reservoir storage at the beginning of February was approximately 100 percent of normal and there is a reasonable prospect of filling the reservoirs, if we can keep the direct calls off, although additional precipitation would improve the outlook. River flows during February at Kersey were 33,800 AF and at Julesburg were 12,000 AF.

Judge Behrman has revised his rules and sent a copy to the Supreme Court. The Supreme Court has stated that they would not take a position on the rules because the rules were subject to testing during litigation. The modifications were intended to clarify the previous rules. Copies of the revised rules will be mailed with the February resume.



**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

February 5, 1982

**RECEIVED**

FEB 08 1982

WATER RESOURCES  
STATE ENGINEER  
COLORADO

MEMORANDUM

FROM: JAMES R. CLARK *Ed for Jim*  
TO: JAY JONES  
SUBJECT: JANUARY WATER NEWS

January weather in Greeley was warmer than normal with below normal precipitation. Mountain snow pack measurements are generally 130-140% of normal and the water supply outlook is good as of February 1st. We hope the present weather trend continues.

The reservoir storage picture looks good for this time of year and improves daily as more water is diverted into storage. River flows at Kersey were 29,900 AF and at Julesburg were 11,100 AF.

The Narrows Project has been revived according to Billy E. Martin, Lower Missouri Region director for the Bureau. A crowd of some 250 people attended the meeting in Fort Morgan January 21, 1982 where Mr. Martin discussed the project, its status and merits. The bureau has been directed to prepare for construction with core drilling along the dam axis scheduled to begin in March, 1982. There has also been some discussion of the Hardin site and an application for a water right at the Hardin site has been filed with the water court.

The budget reductions have forced everyone to cut back on travel and other expenses. The water commissioners find it difficult to do their jobs when travel and use of the phone is restricted and administration of the Division is hampered when the water commissioners are unable to do their jobs. We hope this problem is solved soon.




**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

January 7, 1982

MEMORANDUM

TO: Jay Jones

FROM: James R. Clark 

SUBJECT: December Water News

December temperatures averaged 4 degrees above normal and late storms brought 0.43 inches of precipitation to the Greeley area. However, the mountain areas received considerable snowfall during the month as indicated by the January 1 snow measurements. The snow pack reports vary from 125 percent to 150 percent of normal and the mountains continue to receive snowfall. We are encouraged by the prospect of having a reasonable water supply this year.

Stream flows have remained high enough to allow diversions for storage in most of the reservoirs and the reservoirs at the lower elevations have not been troubled by ice because of the warm temperatures. River flow at Kersey was 34,200 AF and at Julesburg was 11,700 AF.

The year end flood of court applications brought the total to 466 for 1981. The December total was 96 applications with 63 being filed on December 31. Rumors indicate the cities of Broomfield, Thornton, and Westminster filed 12 applications which could have a major impact on the water supply in the north portion of the Metro-Denver area. The competition between cities in the Metro area for the remaining water supply has intensified and everyone is looking for ways to maximize the use of the water owned, therefore, the augmentation plans and exchanges are becoming more innovative and complex. Much time and study will be required to determine how the river system will be affected by these plans.

We welcome Brad Cameron and Deanna Fields to Division One Water Court. Brad is Judge Behrman's law clerk and Deanna is working part time in the clerk's office.

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

December 8, 1981

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

The new water year started off warmer than normal (7 degrees above the normal average temperature) and dryer than normal (precipitation was 68 percent of average). The long range precipitation forecasts have not been very encouraging but we keep hoping for a change.

River flows at Kersey were 31,900 AF and at Julesburg were 5,050 AF for the month. Water is being stored in the reservoirs to the extent river flows will allow. If river flows do not drop drastically, most reservoirs should fill prior to the irrigation season. The river call was 3/17/1911 (Horsecreek-old District 2) until November 13 when the river call changed to 6/15/1908 (North Sterling-old District 64).

Judge Behrman has issued a decision in the matter of the application for the water rights of Gayno, Inc. Seven domestic well permits were applied for by seven individuals March, 1972 and the permits were issued. The seven wells were drilled but were never put to use although Statements of Beneficial use were filed with the State Engineer's office. Application was made with the Court in January 1980 to adjudicate these wells as exempt commercial. The evidence indicated the seven permit applications were signed at random by each of the applicants, one of whom had no ownership interest in the land. The evidence also indicated the applicants have always intended a large, coordinated commercial development of their land and a commercial use of the wells but requested domestic use because "they thought the intended uses were domestic". Judge Behrman determined the applicants knew domestic permits were routinely granted while exempt commercial permits were scrutinized more carefully so chose to request domestic use. The Judge also determined that the applicants knew that seven applications, each signed by a different person, would attract less attention than seven permits signed by one person. Since the Court applications were not supplemented by well permits or denials for commercial use or findings of the State

Engineer based upon applications that the State Engineer might reasonably conclude that such use was intended, the Court applications should be denied. A conditional water right for domestic use could not be granted because appropriation for such use had not been initiated.

A decision was entered in the matter of the application of Riverside Reservoir and Land Company Riverside has three wells (15 cfs total) which they wanted to make alternate points of diversion for their priority No. 86, 5/31/1907 for 417 cfs. The applicant proposed to not use the wells when the water in their ditch near the wells exceeded 313 cfs to adjust for transportation losses historically encountered with the surface diversions. Judge Behrman determined that the plan as proposed would inevitably increase the historic diversions made by Riverside under the direct flow decree (the whole point of the application). In addition, the timing of depletions to the South Platte would be delayed such that the terms and conditions proposed would be insufficient to compensate the river. Therefore, the application was denied.

The Colorado Water Conservation Board has committed \$1.2 million dollars to study the feasibility of four potential water development projects over the next year. These include the Hardin Reservoir and either the Cache La Poudre or Grey Mountain projects in Division One.

The new standardized forms for court applications are now available from Bradford Publishing. Their mailing address is 5825 West 6th Avenue in Lakewood, telephone 733-6900.

MERRY CHRISTMAS AND HAPPY NEW YEAR!

JRC/EWB/mah

TRIBUNE

JAN 8, 1982

# High court upholds water rights decision

DENVER (AP) — Water for six Western Slope water projects may go elsewhere because overseeing agencies did not work hard enough to get the projects moving, the State Supreme Court ruled today.

The high court, in a 6-0 decision written by Chief Justice Paul V. Hodges, upheld a lower court decision issued by a former district court judge who is now on the high court, George E. Lohr. Lohr did not participate in the decision.

The legal battle pitted seven Western Slope governmental bodies against the City and County of Denver over conditional water rights held by the Colorado River Water Conservation District.

The State Supreme Court upheld Lohr's Water Court decision decreeing "reasonable diligence" had not been exercised in the development of water projects, for which the district held rights.

The water court canceled the rights for the Eagle Valley Project, the Edwards Reservoir, the Snowmass Project, the Bridges Switch pumping Pipeline, the Cameo Project, the Glenwood Canyon Project and smaller related programs.

The district had applied for findings of "reasonable diligence," or some designation movement was being made on the projects, and the water court had designated a six-year period, from May 1, 1972 through April 30, 1978, as the time for some sign of work to be done.

Denver challenged the dis-

trict's rights, to the water, and at trial, evidence presented showed progress was insufficient to show any on-site work — or other activity — specifically related to any individual project, was performed during the designated period.

The high court based the bulk of its decision on a 1973 case involving the Orchard Mesa Irrigation District versus Denver, in which it held that "a record which shows only a hope someday to use the water but with prior years of inaction, will not support (a) claim."



*Greeley Tribune 1-17-83*

# Lawmakers eye state's water

## Senate gives go-ahead on controversial water project bill

By RONTOLLEFSON  
Tribune Staff Writer

They passed SJR 6 in the state Senate the other day. That's a Senate Joint Resolution — it's not a state-law-in-the-making.

SJR 6 usually grapple with the mundane. Senators adopted one that formally tells Gov. Dick Lamm the 100 lawmakers one floor up are back in session, as if he hadn't read it in the newspapers, or heard the commotion.

### Analysis

But SJR 6 is different. It has to do with Colorado water and dam-building, and the politics of same. In Colorado and the rest of the West, water has to do with the environment, the economy, growth, the real estate market, city, county and state fees and taxes — and the cost and productivity of agriculture.

Fred Anderson, Walt Younglund, W.D. Farr, Gary Frieauf, Earl Phipps and others say SJR 6 is important. Glenn Saunders thinks it's irresponsible, if not illegal.

It's sponsored by Senate President Anderson, R-Loveland, and by House Agriculture Chairman Younglund, R-New Raymer. Anderson and big-name Denver water lawyer Saunders, who speaks for west Morgan County dam opponents, already have argued about SJR 6.

SJR 6 says state senators, and House members, too, if they pass it, want a nine-man, four-month-old Colorado water-power authority to "proceed with the consideration of the Narrows and Animas-La Plata projects."

That means SJR 6 has to do with:

- The new water-power authority some believe will become the most powerful water body in the state. This area's representative on it is W.D. Farr of Greeley.

- Dam sites between Fort Morgan and Greeley (Narrows), and near Durango (Animas-La Plata), talked of since the first years of the 20th Century.

- Several hundred million dollars in potential federal water project money. (Plus \$30 million in state "front-end" cash.)

- Leaky-dam and cost-benefit disputes over the suggested Narrows dam.

- Animas-La Plata dam building backed by irrigators, Durango city fathers and the Mountain and Southern Ute tribes.

- And, to a degree, SJR 6 even has to do with an olden days court case on blasting a railroad route through Colorado's Continental Divide, a route called the Moffat Tunnel.

SJR 6, following Anderson-Saunders arguments before the Senate agriculture committee early in the week, won full Senate approval Friday on a voice vote, with no debate.

Lamm in his State of the State speech Jan. 6 urged quick legislative moves like that. Accomplish it within two weeks, he asked. Younglund says he'll try to carry the measure through the House with Anderson-like speed.

The idea, Anderson and Farr said, would be to link Colorado up-front-cash for attracting federal water funding with state-Interior Department negotiations — all as Reagan's fiscal year '83 budget and any western reclamation project money are proposed in early February. SJR 6 would enable the water-power authority to go to Washington for such negotiations, Anderson said.

This latest legislative thrust comes as a bunch of multi-hundred-million-dollar water projects are talked of along the Front Range and in northeastern Colorado: The Narrows, ostensibly with federal approval for construction on the South Platte channel seven miles west of Fort Morgan since the mid-1940s, plus proposals like the two-dam Grey Mountain-Idylwilde project in the Cache la Poudre Canyon northwest of Fort Collins, and the Narrows-alternate Hardin project on the South Platte in Weld County 20 miles southeast of Greeley, plus others.

Grey Mountain-Idylwilde and Hardin, plus two west state proposals, Una on the Colorado system and Yellow Jacket on the White River, already face state-funded studies. Younglund and Anderson carried \$1.2 million for the studies through the 1981

Legislature, with talk of three added years of studies.

Some argue it's improper to talk of projects like Narrows and Grey Mountain-Idylwilde in the same breath. Narrows, if it goes at all, they argue, will be federally backed, mostly. Grey Mountain, they add, which faces large-scale opposition among some in Fort Collins and elsewhere, likely would be a state-locally funded project, if at all.

But Earl Phipps, the veteran secretary-manager of the Northern Colorado Water Conservancy District based in Loveland, says times have changed. He refers to Carter administration "hit list" days on water projects, and current pronouncements of Reagan and Interior Secretary James Watt.

"It's important," Phipps said, "the state face up to the fact that if it's going to have water projects, it's got to start putting up front-end funding — whether it's Narrows or the Poudre, Hardin, Animas-La Plata or dozens of others."

Phipps feels Hardin is preferable to Narrows as a lower-channel site along the South Platte. But if state water-power authority spokesmen negotiate Narrows funding with Interior officials, he added, that will end Hardin speculation.

Another water figure, however, says Narrows as an immediate project, with Hardin longer-term, look possible to him. Gary Frieauf, Sterling-based

## continued...Lawmakers Eye State's Water

secretary-manager of the Lower South Platte Water Conservancy District, said the federally-authorized Narrows project "is one that could go immediately....But, Hardin, from a practical viewpoint, is still a gleam in our conceptual eye."

Friehauf, whose LSPWCD is a chief Narrows sponsor, said the 1.6 million acre-foot project, which could back up the South Platte for 17 miles, was last estimated at \$300.2 million in January 1981. He said there is no similar, recent cost estimate for Hardin.

SJR 6 would direct the water-power authority to pursue both Narrows and Animas-La Plata projects (Animas-La Plata in January 1980 was estimated at \$406 million). Although Watt has said Interior budgeting will back one or two "new starts" on water projects for budget-year 1983, state legislators who met with him in mid-summer differ on what that might mean for Colorado.

Younglund believes both Narrows and Animas-La Plata could be federally funded in fiscal 1983, with \$25-30 million in state funds authorized for the water-power authority split between the two. However Rep. Chris Paulson, R-Englewood, a water attorney present for the summertime talks with Watt, said the terms as he understood them were "if we were lucky, there would be one project funded in the West, period."

Others speculate if one project is to

be funded in the West, and if Colorado were to prevail with Reagan forces and Congress, that project most likely would be Animas-La Plata.

They say it would offer an opportunity for the administration to react to a minority-backed (the Ute tribes) project. Also, they add, it in part would benefit irrigators and a few communities in northern New Mexico. They point out Watt's top aide for water, Assistant Secretary Gary Carruthers, is from New Mexico — as is Senate budget chairman Pete Domenici.

Meanwhile, water attorney Saunders, who frequently has represented the Denver Water Board, currently represents about 800 landowners and family members in the Weldon Valley and nearby areas of west Morgan and east Weld counties opposed to the Narrows project.

He argued that as the 1981 bill creating the state water-power authority was enacted, it required a feasibility study before the authority could pursue any water project, with final decisions from the Legislature as well.

Saunders said the act setting up the Colorado Water Resources and Power Development Authority carefully divorced the authority from direct alignment with the state government.

That was required, he said, since the authority ostensibly has power to issue revenue bonds — long-term indebtedness — for water and power

projects. However, he added, a lawsuit might be useful in testing the legal firmness of the bond-issuing powers.

Saunders said the state constitution and a decades-old court case, one involving the construction of the Moffat Tunnel, require bodies like the authority to be separated from the state apparatus.

Saunders said SJR 6 flowed through the Senate quickly due to Anderson's stature in the Senate. He said he does not expect that to be repeated in the House.

His Morgan-Weld clients, Saunders said, "aren't going to stand for this — they thought this (the Narrows) had been killed."

He charged that Lamm — "He's usually a pretty capable fellow..." — had somehow gotten Anderson to support the move for Narrows funding. Said Saunders, "He (Lamm) has some pretty peculiar priorities, in my book."

Anderson said Saundser's opposition is fairly predictable.

"He represents those opposed to the Narrows, and that's his whole theme — to fight anything that could give impetus to the Narrows."

# City Delays

## Hardin-Narrows Action

Fort Morgan City Council members were urged Tuesday night to ask state and federal officials to support construction of the Hardin Dam and oppose the long-standing proposed Narrows project.

The council agreed to a neutral position and to take no action with

Mayor Sonny Billiard and several council members saying that while they had personal feelings about the two projects, any official position they would take as a council would have to be based on the opinions of the people of Fort Morgan whom they represent.

They suggested a poll of city

residents be taken so they could get a better idea of the people's opinion of the two projects.

Billiard also noted that a previous City Council had taken a position against the Narrows, but he did not know how the present council would vote.

"The request for council support of Hardin and opposition to Narrows came from Jake Kosman, president of Water District One's Irrigationists Association which represents 15 ditch systems between Kersey and Balzac, all of whom oppose Narrows.

Kosman said his association wants a dam on the South Platte River but wants it in "the right place," where the most benefit would be gained.

He said that a last-minute push for Narrows funding is underway at the state and federal levels with supporters' "pitch" being that Colorado loses 300,000 acre-feet a year to Nebraska.

Neither dam will stop this, he contended; "only a part would be stopped at either place."

He also told the council that Gary Friehtauf, secretary-manager of the Lower South Platte Water Conservancy District, admitted that no water from the Narrows project has been sold.

The Narrows won't control either the Bijou or Kiowa Creeks which are the major flood threats on the South Platte, particularly with construction of the Chatfield and other dams on the upper reaches of the river, he added.

"If we're going to build a dam, it should be where it will hold water," and

where it can be stored for several years. It is known "the Narrows site won't hold water," Kosman continued.

He pointed out that the Central and Northern Water Conservancy Districts support Hardin and will help get state funding.

"Hardin will do more than Narrows." It will supply additional water for 49,000 acres under the Bijou and Riverside irrigation systems that the Narrows won't, and "this means additional income for hundreds of farmers, Kosman claimed, adding that only high water or water not called on should be caught and stored. Other reservoirs can then be used for underground recharge.

If the dam was built at the Hardin site, the Weldon Valley would be saved rather than losing 14,000 to 20,000 acres of irrigated farm land in the valley and having to relocate 800 to 1,000 people "outside your trade area."

Hardin would cover 200 to 300 acres of farm land and the rest grassland, and only 40 to 50 people would have to be relocated. Kosman told the council. Hardin is in Weldon County which would also mean keeping 45,000 acres on the Morgan County tax rolls.

For the City of Fort Morgan, Morgan County and the farmers — "we would all realize a more stable income," he

asserted.

Billiard termed the Hardin-Narrows controversy "a political football" and said he was not ready to make a decision.

Kosman replied that if the council waits a week or two, it may be too late since a decision for funding could be made soon in Washington and the State Legislature.

Billiard suggested the poll of Fort Morgan residents and noted that while he was raised in the Weldon Valley, "I want to make a decision based on what's best for Fort Morgan."

Councilman Don Schoemaker noted that the city would still be on record opposing Narrows unless the present council made a change. He added that he participated in a Chamber of Commerce water study several years ago, and at that time he determined that "a dam at the Narrows site was not in my best interest — that's where I stand."

Kosman also pointed out that while the city might have signed a letter of intent to purchase water, no contract for water has been signed.

Les Canfield, a longtime Narrows opponent, told the council that if the Narrows is built and the ditches don't (Continued on Page 18)

pay for water, then the taxpayers in the Lower South Platte Water Conservancy District (including Fort Morgan) would have to pay a share of that cost. He estimated residents' property tax could be raised as much as 50 percent.

Councilman Ron Edwards, who was unable to attend the meeting, sent word through Billiard that he feels the council should not take a position, and Councilwoman Ruby Dodge agreed.

Kosman said he was not necessarily asking for an immediate decision, but, "if we don't take a position, we might get snowed under."

Billiard said he felt the council needed more facts which might come from new Hardin and Narrows studies.

Don Christensen, president of the Regional Landowners Group, Narrows opponents, told the council that at the time the RLG had a lawsuit in the courts to stop the Narrows project, it was estimated that 70 percent of the people from Orchard to the east Morgan County line opposed the Narrows.

Narrows is a federal subsidy of 90 to 95 percent, he said, and, "I don't think this country can go on throwing money into bad projects."

He added that \$800,000 has been appropriated to study how best to use the South Platte, and it appears "the politicians are trying to plug in Narrows" before the studies are complete. Water stored in Hardin would be five to 10 times more valuable than Narrows water; Narrows is too far downstream, past three-fourths of the irrigated land, he said.

The Lower South Platte Water Conservancy District has signed a contract with the Bureau of Reclamation to build Narrows, and "if they started building the dam and didn't sell the water, I believe the whole district would have to pay for it," Christensen continued.

He added that he feels another lawsuit can be brought and stop the Narrows. He also asked why the Narrows should be built if farmers

# Officials Of Bureau Bring New Look, Take Heat At Jammed Narrows Meet

FOR THE MORNING TIMES 1/22/82

By TIM CREWS

For friends and foes of the Narrows project, the Bureau of Reclamation had a new look and manner during Thursday night's meeting announcing the restart of the 80-year-old project's movement toward construction.

Bill E. Martin, Lower Missouri Region director for the bureau, moderated and persuaded, took heat and handed back frank answers during the two-hour-long session in a jammed meeting room at the Ramada Inn. In fact, every chair was filled and the crowd numbered more than 250 people.

Martin specifically stated that the purpose of his visit was to let people know what the status of the project is—and not to debate the merits of the reservoir. Congress, he explained, had directed the bureau to prepare for construction and his office was doing just that.

"We are pledged and committed," Martin said. Opponents attempted to continue the debate on the project, Martin and aides answered questions with candor. When they did not have the answer to queries, such as complicated ones on water law, the Bureau's spokesmen said so.

To a question from Gordon Williams of Snyder, Martin and others on the team promised that all data being reviewed would be fairly evaluated. Williams asked for access to documents the bureau is drawing its data from, and Martin and others speaking to the group offered access to all information gathered on the dam and its feasibility studies, environmental impact statements and other documents.

The panel took heavy criticism from some people still angry about hearings conducted here several years ago. Martin also heard political condemnation from some, including Henry Thiel Jr. of Fort Morgan,

"Congressmen, senators and the governor who don't know enough about water to pour it out of their boots...unbelievably stupid...regardless of the merits (of arguments against) you're going to go ahead and build it."

Martin said that his agency was following the direction of Congress.

Hank Brown, R-Colo., has been instrumental in getting the Narrows funded for about \$500,000 in start-up money.

Repeatedly, Martin offered to meet with any groups interested and also offered any assistance the bureau could provide in the way of information.

Bureau appraiser Art Mischke ex-

plained to those inquiring about property payments, "It is not true that you have to take what we offer you. You can get your own expert appraiser...or (after negotiations fail) go to court." Mischke said that there was a provision for interest rate differences in the replacement price for homes and that a similar provision for land is being considered by Congress.

There is some compensation for the cost of relocating a residence.

Explaining that of the bureau's 400 dam projects, only one has failed, Martin stressed the importance of conserving the natural resources. "...making investments in the natural resources of the country."

quality of diplomacy ought to be found in government work of all kinds.

A poignant and perhaps prophetic exchange which hushed the crowd occurred when a woman asked if should the Narrows be stopped, people in the valley would have to live "under the shadow of this thing" forever.

Martin replied, "I can't tell you if it goes away one more time, it will go away forever."

He pointed out that only one percent of the agricultural land in production in the country results from bureau project benefits. But that one percent, he said, produces 10 percent of agricultural commodities.

Mischke pointed out that while the Narrows would take land off the county tax rolls, the federal government provides for payments in lieu of taxes. On top of that, there is documentation that, near similar projects, the economic strength of the area increases and land values increase about eight-fold.

"A major water resource development such as this does increase the economic activity...and land value," Martin said.

The cost of all Bureau of Reclamation projects, Martin pointed out, has been about \$8 billion. That has produced more than \$22 billion in tax benefits alone, almost a three to one ratio. But a project like the Metro subway system in Washington, D. C., cost \$10 billion and has not produced that tax benefit.

The bureau has put the water cost at the dam at \$9.30 an acre-foot. Of that amount \$8.40 would be available for repayment of the project's cost, Martin said. He stressed that those figures, from the December, 1981, updating of estimates prepared earlier, were rough but are the best available.

A few voiced support of the project. Most of the people, however, came to listen. They heard Martin formally announce that drilling crews would be at work in the area of the dam in March gathering geological data for design purposes. Appraisers will also be arriving in the area to work on new cost projects for the \$300 million construction program.

The U. S. Fish and Wildlife Service will, within 90 days of a request from Martin's group, render an opinion on the effect of the Narrows on whooping crane resting grounds in Nebraska. The

# Bureau Gears Up To Build Narrows

Fort Morgan Times 1/22/82

By JOHN LA PORTE  
Times Staff Writer

Government plans to revive the Narrows Dam and Reservoir near Fort Morgan have reached the point where the U. S. Bureau of Reclamation is resuming preparations for construction.

Billy E. Martin, regional director for the bureau's Lower Missouri Region headquartered in Denver, told The Times Thursday, "They specifically told us to prepare the project for construction."

The interview in which Martin and public information officer George Stapleton discussed plans was a prelude to a public meeting Thursday, which is discussed in a separate story in today's Times.

That consultation, with the U. S. Fish and Wildlife Service, is to address the issue of whether the Narrows would adversely affect whooping crane habitat downstream in Nebraska.

The whooping crane issue has led to problems getting permits for the Wildcat Reservoir proposed on Wildcat Creek.

Martin said he believes the environmental impact statement for Narrows is adequate but will review it to see if any supplements are needed.

Today notices of resumption of investigations on the Narrows are to be mailed out to federal, state and local agencies, and next week work is to start on getting access to land for exploratory drilling and updating of cost estimates.

An indexing of cost (adding inflation to old estimates) done, in Martin's words, "a few months back," gave a \$300 million price tag to the project.

Drill crews will probably begin work along the dam axis in early March.

Most landowners from whom the bureau wishes to buy land will be contacted.

Though condemnation is possible in cases where agreements cannot be reached, bureau officials cited a low rate of condemnation.

Some land had already been purchased prior to the Narrows' shelving during the Carter administration, and public notices on renewals of leases will go out soon.

Initial appraisal work, Martin noted, will be to update cost of the project, not for purchases. No land would likely be bought before 1984.

The construction schedule would be about five years, Martin said. Asked how long it would take to fill the reservoir on completion, he smiled and asked, "What's the weather going to be like?"

The first step in construction would be relocation of the Union Pacific Railroad tracks in the area and various roads.

Martin cited widespread support with the state bill to appropriate \$25 million for Narrows and Animas-La Plata passing the Senate, clearing a committee in the House and to go to the full House Monday.

A state water and power authority would get those funds.

The Colorado Water Conservation Board and Colorado Gov. Richard Lamm urged appropriation of the funds.

The Reagan administration, Martin said, is looking to state and local interests on water projects.

"We really aren't here to debate the merits of the project or one site versus another," Martin claimed.

He said if the state gave different signals on the matter, such as performance for the Hardin site upstream, the bureau would adjust accordingly. However, it would mean going to Congress for reauthorization. "It would really mean kind of starting over," Martin commented. "It would set it back several years."

Martin noted a previous study indicated Hardin would be more expensive, and as for shale at Hardin versus more pervious sand and gravel at the south end of Narrows, he cited a study by consultants indicating a safe dam could be built at Narrows and inclusion of some anti-seepage measures in the \$300 million price tag.

Stapleton cited a U. S. Geological Survey study indicating that seepage at the Narrows would be within acceptable limits.

"At this point we don't have any reason to believe that any other site is better than Narrows," Martin said.

Costs are allocated to various parts of the project, and Martin speculated that there could be more costs and benefits for industrial and municipal use than was previously anticipated.

Asked about flood control in light of other dams upstream and Narrows not controlling Bijou Creek, he said that it was possible flood control benefits and costs could also be revised.

Once costs are refigured, plans would be to amend contracts with the Lower South Platte and Central Colorado Water Conservancy Districts that will buy Narrows water.

Those groups would then get contracts with irrigators, municipalities and industries desiring the water.

Asked about possible low sales and people in the districts having to pay high taxes for the water, Martin explained that except for agricultural use,

enough water would have to be contracted for or spoken for in firm legal commitments to pay for itself. Any shortfall in agricultural water sales would be made up for by power revenues from elsewhere in the overall Pick-Sloan Missouri Basin Project.

Martin was also queried about the significance of the Northern, Central and Lower South Platte Water Conservancy Districts filing for rights on Hardin. He said that if Hardin was decided on, the groups would have water rights for it.

As for loss of tax base, Martin pointed to increased economic activity to offset that, and Stapleton cited a University of Nebraska study on reservoirs in that state indicating that for every \$1 invested in water projects \$8 was generated.

Opposition forces have been noted, though. A group of 15 irrigation companies has urged Hardin development instead of Narrows, and a coalition of Narrows opponents, the Regional Landowners Group, has threatened to file a lawsuit against Narrows that was dismissed with the right to refile after the Carter "hit list" shelved the project.

"If that happens," Martin said, "we'll have to see what the court directs."

# Narrows Resolution Clears House; Debate Over Voting Delayed

*Fort Morgan Times  
1/26/82*

By CARL HILLIARD  
Associated Press Writer

DENVER (AP) — A resolution to negotiate development of two Colorado water projects with federal officials cleared the Colorado House of Representatives today but majority Republicans decided to set aside until later debate over a rule penalizing members who refuse to vote.

House Minority Leader Ron Strahle, R-Fort Collins, said that issue will be taken up on Thursday.

SJR6, which authorizes the Colorado Water Resources and Power Development Authority to proceed with consideration of the Narrows and Animas-LaPlata Federal projects, was approved, 59-4.

Last year, the Legislature transferred to the newly-created authority some \$30 million to begin final planning on the projects, which have been sought

for years. The resolution does not authorize actual construction to begin, but it does authorize the authority to negotiate with the secretary of the interior on which of the two to start on first.

Without the resolution, said Reps. Walt Younglund, R-New Raymer, and Chris Paulson, R-Littleton, the Colorado organization cannot negotiate with the interior secretary on the same footing as other states seeking federal construction dollars.

The resolution does not make recommendations on either project, but allows the authority to make that decision, according to Rep. A. J. "Mick" Spano, R-Arvada.

Opposing the resolution were Reps. Wallace P. "Wad" Hinman, R-Yampa, House Speaker Carl "Bey" Bledsoe, R-Hugo; Frank DeFilippo, R-Golden and

Glenn Underwood, R-Olathe.

Only Underwood spoke against the resolution, noting that only two weeks ago there was some \$300,000 in state money authorized for a study of an alternate site to the Narrows, some 25 miles above the Narrows site.

HR1004, sponsored by Strahle, drew some negative comment during a Republican caucus prior to the House session.

During the 1981 legislative session, Rep. David Skaggs, D-Boulder, refused to vote on the main budget bill, protesting that since Democrats had had no hand in the setting of budget figures, they should not be compelled to vote either for or against the measure.

Strahle and others interpreted the House rules to say if a member is present on the floor, he must cast his vote. But there was ambiguity in the rules on that point, and to avoid undue

controversy, Skaggs left the floor and let the vote continue.

To forestall a similar incident this year, Strahle introduced a rule change to allow the speaker to bar the defiant member from debating or voting on any subsequent issue if the member refused to cast a vote, and that prohibition would continue until the member apologized or "purged himself" of the contempt.

The proposed change would also, on a two-thirds vote of the House, allow the defiant member to be expelled, following guidelines set out in the Colorado Constitution.

But some GOP members felt they had not had time to consider the Strahle proposal, and others felt the proposal itself might be too harsh. Strahle agreed that the resolution would not be brought to the floor until later.

## Boulder Methodist minister leaving for California study

The senior pastor of the First United Methodist Church of Boulder, a congregation that suffered serious division last fall over the removal of a self-avowed homosexual associate minister, is leaving the church to study in California.

The Rev. Binford Gilbert said he will take six months to a year to study counseling and family services in San Diego and Los Angeles. He said he will remain in the Methodist ministry and return to the Rocky Mountain Conference of the church for assignment when his study period is concluded.

Asked if his leaving has anything to do with the removal of the Rev. Julian Rush and the church split over retaining the homosexual minister, Gilbert said, "I suppose my leaving is related to that incident."

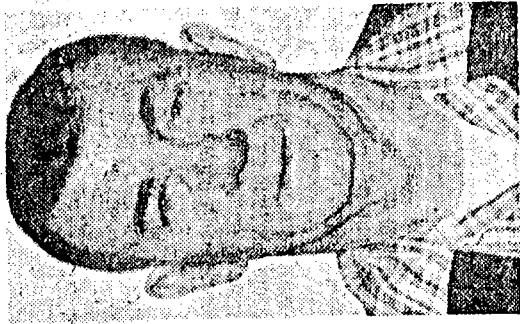
Gilbert said this week as he packed, hoping to be in San Diego by Monday, that "I have been thinking for some time that it probably is time to move on and take advantage of advance clinical training."

In response to a question about reports that the Boulder congregation is still divided over the issue, Gilbert said "I hope that the debate is almost over. It is time for the congregation to be healed."

He said he would be studying at the San Diego Family Institute and at the American Institute of Family Relations in Los Angeles.

After Rush identified himself to Gilbert and the church's Staff Parish Relations Committee as a homosexual and after considerable discussion and a split vote by the committee in favor of removal, Rush was reassigned by Bishop Melvin Wheatley to St. Paul's United Methodist Church in Denver on a part-time basis, where he has been setting up ministries to singles and the elderly, which predominate in Denver's Capitol Hill area.

Gilbert said the Rev. Greg Smith, associate pastor at the Boulder church, would be in charge until such time as the bishop's Cabinet and the district superintendent make a pastoral appointment.



### Moderator named

Joe Clayton, lay member of Louviers Community United Presbyterian Church, was installed this week as moderator of the Denver Presbytery. Installed as vice moderator was the Rev. Marquita Melting, pastor of Bennett United Church.

# High snow runoff is predicted

LOVELAND — Forecast spring and summer snowmelt runoff is expected to be above normal, according to the Bureau of Reclamation Water Supply and Utilization report for February.

Bob Bellamy, who is responsible for planning and directing the water and power operations of the Colorado-Big Thompson Project, said the forecast is based on results of their computer model using current snowpack and other hydrologic factors.

The report shows Feb. 1 snowpack to average nearly 120 percent of normal for the Willow Creek and Granby watersheds on the Western Slope, which are the primary water supply source for the CBT. Total combined runoff from those watersheds is expected to be 265,000 acre-feet for the April-July period.

"This would be about 20,000 acre-feet above the average for the 1960-80 period," Bellamy said. "The current snowpack is also above average for the Eastern Slope watersheds within the project service area. Runoff for these streams consisting of the St. Vrain, Big Thompson and Poudre rivers is forecasted at 105 percent of average."

By comparison, the current snowpack water content is nearly four times that of just one year ago, Bellamy added.

"The prospects for good runoff this year is most welcome and could provide for a significant recovery of reservoir storage reserves depleted by last year's drought conditions," Bellamy said.

Current combined storage in Granby, Carter Lake and Horsetooth Reservoir totals 409,000 acre feet, which is only 80 percent of average, he said.

# CWC slates convention this week

A top aide in the Interior Department, U.S. Rep. Hank Brown, R-Colo., Gov. Richard Lamm, State Rep. Walt Younglund, R-New Raymer, and water expert W.D. Farr of Greeley will be among the speakers at the 24th annual convention of the Colorado Water Congress Wednesday and Thursday in Denver.

Spokesmen said registration will open at 8:15 a.m. Wednesday. All sessions will be at the downtown Denver Holiday Inn, 15th and Glenarm Place. The program:

- **WEDNESDAY:**
  - Luncheon address, "The Reagan Challenge," Peter Flanigan, a member of the President's Economic Policy Advisory Board, and managing director of the New York bond firm, Dillon, Read & Co. Inc.
  - 1:40 p.m., an overview of Interior Secretary James Watt's policies, by Derrell P. Thompson, special assistant to the secretary.
  - 2 p.m., "The Future is Tomorrow: Are We Ready?" A panel, including Greeley agribusinessman Farr, a city and regional water official; former Gov. John Vanderhoof, president of the Western Slope's Club 20, and State Treasurer Roy Romer, 1979-81 chairman of the Governor's Blue Ribbon Panel.

- 3:45 p.m., "The State and Water Users: What's Next?" Talks by State Natural Resources Director Monte Pascoe; Colorado Water Conservation Board Chairman Robert Jackson; State Agriculture Commissioner Morgan Smith; state water engineer Jeris Danielson, and Ray Reeb, chairman of the Colorado Water Quality Control Commission.

• 5:30 p.m., reception in honor of former U.S. Rep. Wayne Aspinall.

- **THURSDAY:**
  - 7:15 a.m., breakfast with legislators; talks by Senate President Fred Anderson, R-Loveland; House Agriculture Chairman Younglund; Rep. Chris Paulson, R-Englewood, a water lawyer, and Sen. Martin Hatcher, D-Gunnison.

• 9 a.m., speech by Gov. Lamm, "Colorado Water — 1982 Challenges."

- 9:25 a.m. to noon, talks by EPA Assistant Administrator Eric Eidsness, a former Larimer-Weld COG official; Colorado Energy Research Institute Director Marlin Robbins; two New York bond firm officers; Bureau of Reclamation Assistant Regional Director Jim Malila, and by Roger Marzulla, president and chief legal officer of the Mountain States Legal Foundation.

• Luncheon address, 12:30 p.m., by Rep. Brown. The second "Wayne Aspinall Water Leader of the Year Award" also will be presented at this time.

• 2 p.m., CWC annual business meeting, including voting on 1982 resolutions.

GREELEY TRIBUNE 2/9/82



Tribune 2-11-82

# Farr sees need for water law changes

BY RON TOLLEFSON  
Tribune Staff Writer

DENVER — W.D. Farr of Greeley told Colorado Water Congress conferees Wednesday predictable, major growth for 100 years in the state will mandate sweeping changes in Colorado water law.

One of three "futurists" to speak to the 24th annual CWC convention, Farr said state water law changes must stress conservation and better management, far more self-management and flexibility for Colorado's eight major river basins, sound use of groundwater — and sweeping cuts in the state engineer's role as "water czar" of Colorado.

Speakers besides Farr on Colorado water readiness for the future included former Gov. John Vanderhoof, president of the Western Slope's Club 20, and State Treasurer Roy Romer, 1979-81 co-chairman of the governor's Blue Ribbon Panel.

Farr, board chairman of Farr Farms Co., Greeley Water-Sewer Board chairman and an officer of Northern Colorado Water Conservancy District units, recently became one of nine named by the governor to the new Colorado Water Resources and Power Development Authority.

Energy development in the state, Farr said, "guarantees continued

rapid growth in Colorado for the next 100 years — limited only by the development of its water."

Farr said numbers of water projects have been identified that should be built. The new water-power authority, he said, can act quickly on projects after reviews.

Romer urged "a three-legged stool" of state legislative, state executive, branch and private-sector cooperation on major projects.

He said Gov. Richard Lamm's Blue Ribbon Panel of business and government leaders after a couple of years of study had identified water projects as the state's chief capital-spending priority.

But with that, Romer said, must come dollar support for sewage and domestic water systems, highways, and transportation systems and education and training facilities.

Romer said that mix of legislative, executive and private people should be called on periodically — every five years or more often — to study state needs in major projects, their costs and Colorado's revenue picture. Reinvestment in the "plant," he said in an example, is something every wise corporate board does. This carries a political message of sorts, Romer said.

"It's probably the most conservative message either party could offer: let's take a piece of the good life, now, and reinvest it for the future."

Vanderhoof drew from his travels in new-frontier areas of Mexico and British Columbia. There, he said, land, resources and water are being developed without hesitation.

In Colorado, Vanderhoof said, state officials eventually must consider trades of some energy resources to other regions for the importation of water.

Vanderhoof said he continues to "preach" that idea — even though it has cost him friends in places like Nebraska and Idaho.

Farr said growth-demanded changes in state water law predictably will take longer than the usual 15-year lead time for a major water project.

Farr said the water law changes should shift the current water rights system to a volume-based system, and strongly emphasize basin-wide water management and planning within Colorado.

Law changes also must come to better use the groundwater and aquifers of the state, he said. "This is Colorado's ... greatest unused resource," Farr said, one not now intelligently used.

"I realize these proposals are new and may be controversial," Farr said. "But I'm sure Colorado water users would rather control this themselves — rather than see it by state or federal action."

# The precious commodity with an increasing price

Across the past ten years, the \$3,000 mid-sized car has increased to \$8,000; the \$25,000 house now costs about \$80,000. And so it has gone for most commodities. What about water?

An acre-foot of water is 325,851 gallons. It is the amount of water a foot high on an acre; it is between 40 percent and 125 percent of the total amount of water needed to grow crops on an acre across an irrigation season with the range depending on the crop being grown and the climate and terrain.

That's what an acre-foot of water is. The cost for irrigators used to be as low as \$8; for municipalities and industrial companies the cost used to be as low as \$15 to \$25. For many different reasons, the cost of that acre-foot is changing more rapidly and at a far greater rate than what we've seen happen with a car, house or loaf of bread.

In 1968, the owners of the Navajo Generating Station near Page, Arizona, negotiated a contract to obtain the use of 37,100 acre-feet of water per year for \$45,000 a year, or \$1.21 per acre-foot. That was just 12 years ago. Consider what is happening today.

Transmountain diversion are the most expensive type of water projects. The Windy Gap transmountain diversion project now under construction in Grand County is expected to divert 50,000 acre-feet of water per year to six growing cities on the Front Range at a raw water cost when delivered of more than \$250 per acre-foot. Estimates on the proposed Cheyenne diversion project in Wyoming are considerably more than that with a range of \$300 to \$450 per acre-foot.

The White River Dam in Utah, the Taylor Draw Dam in Rio Blanco County and the Foothills Project outside Denver all are expected to deliver water for industrial purposes at a cost greater than \$200 per acre-foot.

Two years ago the owners of the Intermountain Power Project near Delta, Utah, paid more than \$80 million up front for the right to use 40,000 acre-feet of surface water per year and 5,300 acre-feet of groundwater per year. When amortized over the life of the project, the price of this water exceeds \$200 an acre-foot — a price more than 160 times greater than a price paid for water 12 years before.

The list goes on and on. Even the negotiations between Exxon, a partner in the Colony Oil Shale Project and the Bureau of Reclamation for water from Ruedi Reservoir, at a price of \$55 to \$95 per acre-foot, depending on the amount used, is not really as sweet as it appears. The price is for water delivered at the outlet works of the reservoir, and when steam losses and the cost of diversion and pumping are considered, the cost of that water will probably exceed \$200 per acre-foot.

There are several good reasons why the increase in the price of water has so greatly exceeded the rate of inflation. First, in the past most water projects were financed by the federal government, a practice that resulted in substantial savings. Privately funded projects now under construction or on the drawing boards such as Windy Gap and Taylor Draw are nonfederal and thus are financed through sale of bonds — a sale that takes place in the free market. Free

market interest rates far exceed the historical repayment interest required by Congress. Second, additional bonds must be sold to pay for interest during construction — a cost that was nonexistent when the projects were federally funded.

Of the \$84 million in bonds sold to construct Windy Gap, approximately \$28 million was necessary for interest during construction. To put it another way, if Windy Gap were financed by the governmental appropriations as had been done in the past, project cost would be about 30 percent lower.

Third, traditional federal projects were normally oversized. In water projects there is a pronounced economy of scale. Oversizing of projects to allow for growth as was the tradition with federal projects enabled far more cost effective projects.

As an example, the capital cost, on a dollar per acre-foot of storage basis on Juniper Reservoir with storage of over 1 million acre-feet is only 20 percent of the recently completed Yamcolo Project with a storage capacity of 9,000 acre-feet. Local water districts and municipalities simply do not have the resources to significantly oversize their projects. They are forced to build smaller projects that cost more per gallon of acre-foot of storage.

Another cause of the rapidly rising cost of water is speculation. Those who hold water rights or decrees have the right to use that water and that is a property right as valuable as the deed on a piece of real estate. Colorado has between 700,000 and 900,000 acre-feet of water per year of its compact share of the Colorado River that the state is not currently

using. Competition for this water as well as older senior water rights is becoming extremely keen. Prospective industrial water users such as a major energy company that may not yet be committed to entering the Colorado scene are apparently well advised to secure water rights now even though several years down the road they may choose to not develop energy in the state and simply sell the water rights at a profit. Energy companies, developers and even municipalities fearful of future limitations are securing water rights that may not be immediately needed and are in effect spiraling the cost of water.

Those are a few of the major factors that have joined to drive the price of water to spectacular levels.

Those new levels have and will continue to impact the pocketbook of consumers and taxpayers. Water users, homeowners as an example, will see their water bills go higher and higher. Consumers not only face the prospect of increased food prices, but also diminished supplies as irrigators fail to be able to pay the higher water costs on the one hand and find that they can sell their water rights for more money than they could earn as working farmers across a 30- or 40-year period.

# Narrows project again the topic of federal study

In a recent interview, BuRec public affairs officer Clark Germann, agency engineer Lawrence L. Nelson, both of Denver, and Loveland-based Jerry Westbrook, BuRec land management and recreation chief for South Platte projects, said drilling and other Narrows studies started last week.

Earlier Narrows data called for an earthen dam 4.2 miles long some 147 feet above the South Platte streambed that would back up a maximum 1.6 million acre feet of water and create a reservoir with a surface area of 41,000 acres and 40 miles of shoreline.

By comparison, Horsetooth Reservoir west of Fort Collins contains up to 152,000 acre feet of water and has a surface area of 1,600 acres.

Cost of the Narrows project was placed at \$139 million in 1975, and at \$162 million in 1977.

With updated cost figures to be part of the BuRec studies, Nelson said a rough estimate now might be about \$300 million, in current dollars. However, he also noted that under cost-sharing policies, state and local sources may be required to fund a one-tenth share of about \$65 million over the inflated-dollar life of the project. He pointed out there is no set cost-sharing formula, yet. But Nelson also said cost-sharing with local units is not a new item with BuRec.

*GREELEY TRIBUNE 3/1/82*  
The Narrows, a dam proposed for the South Platte River between Fort Morgan and Greeley that became a Carter administration "Hit List" victim, again is under active federal study.

And, in line with federal policies, it is speculated that 10 percent of its cost — perhaps \$65 million — may be required from state and local sources if Narrows is to be completed in optimum time, possibly by the early 1990s.

But, federal officials admit, Narrows will continue to face strong opposition from a number of people, many of them regional landowners in the Weldon Valley of west Morgan County. And, they say, in environmental terms Narrows now faces new questions of its Platte system impacts on whooping crane habitat in western Nebraska.

Disputed since Congress first endorsed it in 1944 for a site seven miles west of Fort Morgan, the Narrows Project once more faces federal studies on costs — perhaps \$300 million in 1982-83 dollars — site characteristics, environmental factors and design details, according to three spokesmen for the U.S. Bureau of Reclamation.

The Colorado Legislature recently approved a measure authorizing a new state water-power authority, backed with up to \$30 million in potential cost-sharing money, to negotiate a start to federal construction budgeting for Narrows and for the proposed Animas-La Plata Project near Durango.

Besides the state government, Nelson pointed out, chief local sponsors for Narrows are the Lower South Platte Water Conservancy District of Sterling and the Greeley-based Central Colorado Water Conservancy District.

With BuRec budgeting of \$500,000 recently shifted for renewed Narrows studies, and another \$500,000 in the Reagan administration 1983 budget proposed for added Narrows pre-construction work, Nelson said test drilling started Wednesday at the proposed Narrows site seven miles west of Fort Morgan.

That drilling, they said, is part of geologic structure and other studies that will lead to updated dam site, design, cost and environmental studies. In addition, Westbrook said, talks are to start with officials of the Union Pacific Railroad for relocating UP track in the Narrows area.

They said studies should continue through most of this summer, with site-study and cost updates possibly completed by November. However, they said, it likely will be about August of 1983 before environmental and detailed design studies are completed.

A start to Narrows construction budgeting, they said, would require both administration and congressional backing. If that occurs, Narrows construction dollars might flow from Washington in the 1984 budget year (starting October of 1983).

Under optimum timing, they said, Narrows could be completed in about 10 years — although the first deliveries of water from Narrows might begin a couple years sooner than that.

Narrows earlier was identified by BuRec for flood control, farm irrigation and recreational roles. Now however, Westbrook said there's a new emphasis on municipal and industrial water supply roles for Narrows.

He said talks about that possibility are planned with such community and industrial water users as Brush, Fort Morgan, Sterling, Merino and Great Western Sugar Co.

Nelson contended opponents' charges have been discounted that massive leakage would occur under the earthen dam and its base. He said BuRec and independently contracted studies counter those leakage arguments — although some minor flow of groundwater is predictable with any earthen dam.

However, he admitted, one topic that will face renewed Narrows environmental studies is the project's effects on downstream whooping crane habitat in western Nebraska.

One of the most major names in Colorado water law, Denver lawyer Glenn Saunders — a frequent consultant for the Denver Water Board — recently confirmed he now represents about 800 landowners opposed to Narrows who live in the Weldon Valley and nearby areas of west Morgan and east Weld counties.

Saunders expressed strong questions about the \$30 million in budgeted state support for Narrows and Animas-La Plata projects, and challenged the legal basis for the state's new, nine-member water-power project authority board.

Saunders said his clients "aren't going to stand for this — they thought this (the Narrows) had been killed."

BuRec's Nelson admitted Saunders stands as a "formidable" opponent.

But he and the others indicated studies will continue under congressional and administration funding and authority.

# High Timber Times

VOLUME 6 NO. 10 THURSDAY, MARCH 11, 1982 CONIFER, COLORADO 25 CENTS (U.S.P.S. 387-940)

## Crackdown on illegal drillers

by Jacque Scott

A statewide "crackdown" on illegal and improper well drilling is under way. And, mountain area well drillers are not immune from the scrutiny nor the consequences.

"The situation is getting extremely aggravated," said State Assistant Attorney General Connie Peterson.

"We are getting complaints from individuals reporting poorly constructed wells, bad well water and overcharging of customers," Peterson said.

In recent months, hearings have been held before the State Board of Examiners of Water Well and Pump Installation Contractors, the state regulatory board for well drillers.

Three Colorado well drillers - Ben Aragon, Howard Howerton and Don Wanake - have had licenses temporarily suspended. Aragon's license was suspended for 60 days and the other two for six months, Peterson said.

These are "the first" instances of well drillers' licenses being suspended in the state, she pointed out.

Aragon, who has drilled in the mountain area, was alleged to have billed a customer for casing that was not installed, Peterson said. The problem was corrected by Aragon.

*"We intend to clean this situation up"*

prior to his suspension hearing in January, she said. The other two had licenses suspended for alleged "contamination of wells that were poorly constructed," the assistant attorney general said.

Additional hearings were conducted this week involving three other cases, Peterson said. More charges are being investigated and future hearings are expected, she said.

Deputy Water Commissioner Ken Salsar told the Times Tuesday, "Definitely, it is an aggravated situation." He said the public has a "right" to rely on the state licensing program and "to expect" that a licensed well driller is "reputable." All well drillers must be licensed, and all wells must have permits, he said.

"Thankfully we have a number of capable well drillers. But then, we have a few that have created a problem. We intend to clean this situation up. Until we do, it is a substantial burden on the people."

Salsar, a Comifer area resident, said he is aware of examples of illegal and improper well drilling in the Evergreen-Comifer-Bailey area. Examples, he said, include drilling without a permit or without a license, improper work causing contaminated water and drillers overcharging customers.

"And, really, the only thing people can do to protect themselves is ask for references and to make sure these drillers have licenses. The people have a right to expect a licensed driller to be reputable," the deputy water commissioner said.

*Tribune 3-16-82*

## Windy Gap directors call off study; resume pipeline work

LOVELAND — The board of directors of the municipal subdistrict of the Northern Colorado Water Conservancy District has voted to terminate archaeological study activities on the Windy Gap Project pipeline route and resume construction early next month.

The board met here late last week.

W.D. Farr of Greeley, president of the subdistrict, told the board that the staff and consulting archaeologists had completed the on-site study which had been authorized by the board in January.

The directors discussed that study and its findings and concluded that the subdistrict had acted in good faith during the effort to mitigate the sites. Board members also agreed that the study had failed to define or positively identify the archaeological "features" uncovered last summer during pipeline excavation, and they questioned whether further efforts and study could really

provide any conclusive information.

Larry Simpson, subdistrict chief engineer, reported that nearly \$300,000 had been spent by the subdistrict in total archaeological studies since the project's inception. Nearly \$65,000 had been spent on the pipeline site study alone, he said.

Farr reminded the board that the subdistrict funded the excavation undertaken to date, on strong indications that the federal government would contribute financially to the investigations. To date, only \$4,000 has been contributed by the federal government and it does not appear that any further contributions will be forthcoming, Farr said.

The board was unanimous in its decision not to allow subdistrict water users to bear increased construction costs due to lack of action by the federal government and agreed to a staff recommendation approving renewed construction.

# Sen. Anderson blasts governor for spending cuts in resources agency

*Loveland Reporter Herald 3-18-82*

DENVER (AP) — Senate President Fred Anderson says Gov. Richard Lamm's administration is guilty of "gross mismanagement" that is disrupting the handling of water in Colorado.

Anderson, a Republican from Loveland, said Wednesday that he was upset by spending restrictions imposed within the Department of Natural Resources which resulted in a directive that state water engineers would no longer receive routine travel allowances.

Lamm's administration has attempted to impose spending restrictions throughout the executive branch because of an anticipated revenue shortfall. But Anderson described cutbacks in the Water Resources Division as "penny-wise and dollar-foolish" and said a supplemental appropriation should have

been sought from the Legislature.

According to Anderson, the spending restrictions resulted in a cutback of services which caused 400 acre feet of water in the South Platte River near Kersey to be mishandled. He said similar complaints were relayed to him Tuesday night at a water users' meeting in Alamosa.

"This is a poor management decision that should be rectified immediately," Anderson said in a letter sent to Lamm on Wednesday. "In my thinking, it is as great a crime, if not greater, to waste water as to steal it."

Monte Pascoe, director of the Department of Natural Resources, said he had tried to spread the requested budget cutbacks evenly throughout his agency and had been more generous with the Water Resources Division

than other divisions. He said the spending restrictions were imposed on the engineers now in hopes that funds could be saved for full operation during the peak water runoff period from April through June.

Pascoe also said the restrictions on engineers could be lifted at any time to respond to an emergency, and he ordered the division to address the problem in Kersey.

Lee White, director of the Office of State Planning and Budgeting and Lamm's top budget advisor, said the austerity plan was implemented by Lamm to avoid a budget deficit. He said the Legislature was responsible for the spending restrictions because it failed to leave enough money in the state's reserve fund to cope with the expected short-fall.

*TY Mine 3-18-82*

## Water division restrictions criticized

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# Northglenn's Pipeline Criticized by Builder

*Denver Post 3-18-82*

By SUE LEWIS  
Special to The Denver Post

The \$2.3 million pipeline installed to carry raw sewage to Northglenn's financially troubled \$20 million wastewater treatment plant is poorly designed and will require continuous, costly maintenance, says the contractor who built it.

"I told them before I started. I didn't think it would work but the city wanted to go ahead with it," said Theodore Hardy, Colorado division manager of Burdick Contractors Inc.

However, two men who supervised the pipeline design say they are sure it will function properly and question Hardy's qualifications to criticize the project.

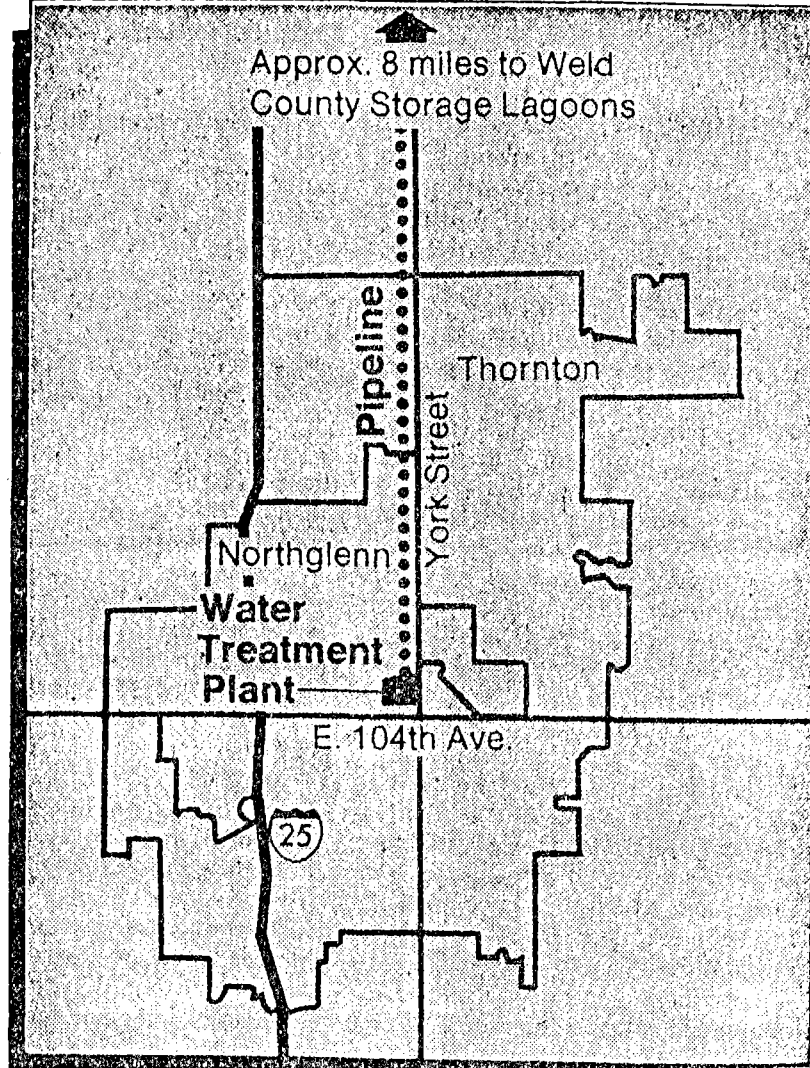
Hardy wrote a letter June 11, 1981, to Boyle Engineering Corp., inspecting engineers for the project, with a copy to Ken Anderson, Northglenn's assistant project manager, listing some of his concerns regarding the wastewater system. The company had just started laying the pipeline when Hardy wrote the letter.

In that letter Hardy stated: "Based on the limited engineering knowledge possessed by our Colorado staff and based on many years of actual experience it is our feeling that the 27-inch pipeline for the above project will not operate or function in the manner it is intended.

"Due to changes in grade throughout the length of the project, it is our feeling that sludge from the raw sewage will collect in the low areas of the pipeline, substantially impeding the flow and possibly stopping it altogether.

"As we have concerns that you, or the city, may look to us, after completion of the project to correct the above situation, we wish to notify you that we will in no way be held responsible for the failure of the pipeline to perform in the manner it is intended."

The Denver Post received a copy of the letter from Merle Menin, head of Northglenn Citizens for



The Denver Post / Bruce Gaut

Fair Treatment. But, Northglenn City Council members contacted by The Denver Post said they have not seen the letter.

"It is my feeling the system will not work as designed for two reasons," Hardy said in an interview. "First, it was a very poorly designed sewer line. There are a lot of suspended solids in the sewage and they collect in the low spots. The pipeline follows the terrain — it is not graded. Without continuous maintenance I would be surprised if it lasted two years."

Hardy said it would take a full-time, three-man crew and a truck

to clean the pipeline through access manholes with high pressure jetting. If another pumping station were installed to force the sewage through the line under pressure, Hardy advised, the suspended solids would not settle as readily.

However, there are other problems with the pipeline, Hardy said.

The city's specifications did not call for grouting of the pipe joints. Gases will collect in these joints and eat away the pipe. "This is the first job I've ever done with steel cylinder pipe where the joints were

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# Northglenn's Pipeline Design Hit

## PIPE from 1-B

not grouted," Hardy said. He has been installing pipe for the past 20 years.

Hardy, a Northglenn resident, estimated it would cost \$5 to \$6 million to redesign and replace the pipeline so that it will operate properly.

However, two men who supervised the pipeline design disagree.

Because both storm and sewer water will rush through the pipeline, a "self cleansing velocity" will be maintained and blockages will be prevented, says Tom Ambalam, Northglenn's acting director of natural resources.

He adds jet cleaning is never used on 27-inch sewer line; instead, a cleaning method using a "sewer pig" (a ball forced through a sewer line under pressure) is used.

Hardy's suggestion that a jet spray be used "shows he doesn't have any knowledge of how these

lines are maintained," Ambalam said.

Bob McGregor, a vice president of Sheaffer and Roland, design engineers for the project, said there wasn't any need to grout the line because it's submerged and therefore can't be attacked by gases which might corrode the joints. He added that Hardy hasn't ever discussed his doubts with Scheaffer and Roland.

William Korbitz, Colorado managing engineer with Boyle (the inspecting engineers), lined up on Hardy's side of the issue. Korbitz background includes 10 years as director of the Denver Metropolitan Sewage Disposal District No. 1.

Korbitz said his company had expressed concerns with the design of the pipeline to Sheaffer and Roland in the early stages of the project, while working on the operation and maintenance manual.

"I indicated they should take another look at the design from the standpoint of maintenance," Kor-

bitz said. "The design engineering people were certain it would flush out so we didn't have our people check it out in great detail."

Korbitz said his company discussed their concerns several times with Northglenn employees both in the field and in the city offices.

In a push to complete the wastewater treatment system, the City Council recently hired Sheaffer and Roland as resident engineers replacing Boyle, claiming Boyle was not up to speed on the project.

The wastewater treatment facilities are scheduled for completion by June 30. The contract with Sheaffer and Roland specifies that \$3,000 per day will be deducted from their \$200,000 fee if the project is not completed by that date.

The city can't use the facilities for sewage treatment until the Colorado Water Court rules on the validity of Northglenn's water reuse agreement with Farmers

Reservoir and Irrigation Co. The application was filed March 3.

Acting City Manager Craig Camp said it was premature to respond to Burdick's concerns about the pipeline at this time. "I tend to believe that if both of those respected engineering firms (Boyle and Sheaffer and Roland) bought off on it, it is probably going to work," he said.

In a recent proposal to take over Northglenn's \$72 million water and sewer system, Thornton's Mayor Margaret Carpenter advised that Thornton did not intend to utilize the sewer system because "many people feel that system is not workable."

The price for the innovative water exchange program was estimated at \$31 million when Northglenn voters approved the project in 1976. Costs have skyrocketed to \$72 million for the still incomplete system pushing the city to the brink of bankruptcy.



*Denver Post*

**Water** *3/18/82*

# Lost to Nebraska

## Lamm Spending Curbs Blamed

**By GEORGE LANE**  
Denver Post Capitol Bureau

Spending restrictions imposed by the administration of Gov. Dick Lamm have resulted in the loss of millions of gallons of Colorado water to Nebraska, the president of the state Senate charged Wednesday.

The restrictions involved halting travel by engineers in the Department of Natural Resources. As a result of the restrictions, no one visited a station on the South Platte River to adjust valves to divert water into storage until the problem was brought to the department's attention.

"I'm perturbed about it," Republican Sen. Fred Anderson of Loveland said Wednesday. "It is a penny-wise, dollar-foolish approach."

In a letter to Lamm, Anderson said 200 cubic feet of water per second (53 million gallons per hour) was passing through the Kersey water station near Greeley and going to Nebraska for part of the day Tuesday.

The problem was corrected after department Director Monte Pascoe learned of it and lifted the travel restrictions. Water was lost from sometime early Tuesday until about noon.

The restrictions put into effect Tuesday by state engineer Jeris Danielson were designed to save money in the department so there would be adequate financing for employees to deal with the expected heavy spring runoff.

The restrictions are on travel, long-distance telephone calls and purchase of supplies.

Anderson asked Lamm to lift the restrictions on that department, calling it a "poor management decision that should be rectified immediately."

Anderson said the restrictions wouldn't have been necessary had Lamm asked the Legislature for additional operating money this session.

Pascoe said as soon as he learned of the problem at Kersey he contacted the division engineer and told him to take whatever steps were necessary to correct it.

# Phipps to retire from NCWCD May 1

*Greeley Tribune 3-23-82*

LOVELAND — After completing a career spanning 31 years, Earl F. Phipps has announced his retirement from the Northern Colorado Water Conservancy District and Municipal Subdistrict. Phipps told the board of directors during the board's March meeting that he will be stepping down as secretary-manager effective May 1. He will serve as an executive consultant to the board pursuing water project planning, contract negotiations, policy formation and management consulting following his retirement.

The board appointed Larry Simpson, currently assistant manager and treasurer of the district, to fill the manager post, and elected him as secretary. Simpson also serves as treasurer and chief engineer of the subdistrict.

Phipps completed 31 years with the NCWCD March 1 and was the third employee hired by the organization as the Colorado-Big Thompson Project facilities were being completed. He directed the initial operations of those facilities and then served as

operations and maintenance superintendent until 1964. He then served as assistant manager until 1974 when he succeeded J.R. Barkley as manager.

A graduate of Colorado A&M (now Colorado State University), Phipps is a charter member and past president of both the Colorado Water Congress and Four States Irrigation Council.

He currently serves on the executive committee of the U.S. Committee on Irrigation and Drainage, is a member of the Colorado Water Resource Research Institute Oversight Committee, and the Larimer County Extension Service Advisory Committee.

Phipps participates in both the Hardin and Cache la Poudre water project advisory committees and has been

the recipient of several water related awards including the Headgate Award of the Four States Council. A father of three grown sons, Phipps and his wife Jean reside in Fort Collins.

Simpson is a native of Eaton and a graduate of Eaton High School. He earned a professional engineering degree from the Colorado School of Mines in 1959 and is a licensed civil engineer in both Colorado and California. He earned a

masters degree in business administration from California State University.

He served as an officer in the U.S. Army Corps of Engineers and worked with the Los Angeles County Flood Control District in water resources design and management for 12 years before joining the NCWCD.

During his 11 years with the NCWCD, Simpson has served as planning coordinator, assistant manager, and treasurer. He is the

immediate past president of the Colorado Water Congress, is a member of the American Society of Civil Engineers, the National Water Resources Association, Four States Irrigation Council and the Colorado River Water Users Association, among others.

Simpson and his wife Ruby have two children and reside outside Loveland.

## NCWCD manager dies of carbon monoxide poisoning

*Reporter Herald 4-12-82*

Earl S. Phipps, 61, Fort Collins, manager of the Northern Colorado Water Conservancy District, died Sunday at Poudre Valley Hospital after he was found in the garage of his home with the door closed and a car motor running.

Dr. Robert Deters, a deputy coroner for Larimer County, said the cause of death appears to be carbon monoxide poisoning. Phipps, who had recently announced his plans to retire from the conservancy district, was pronounced dead at 12:15 p.m. Sunday at Poudre Valley Hospital in Fort Collins.

Phipps came to the area from Wichita, Kan., in 1947 and earned his bachelor's degree in agronomy from Colorado A & M (now Colorado State University) in 1951.

He began working that year part time for the water conservancy district. He became

operations superintendent for the conservancy district in 1955 and operations and maintenance superintendent in 1958.

He became assistant manager in 1964 and manager in November 1974.

He was a member of the National Water Resources Association since 1957. He was a director of the United States Committee on Drainage and Flood Control and the Four States Irrigation Council.

He is survived by his wife, Jane Phipps, Fort Collins; three sons, Daniel, Loveland; Peter D., Annsback, Germany; Michael, Arvada; two sisters, a brother and one grandchild.

A graveside service will be 2 p.m. Friday with burial of remains at Grandview Cemetery in Fort Collins.

# Colorado ranchers, Nebraska

LOVELAND DAILY REPORTER-HERALD

## argue over water

MONDAY, MARCH 29, 1982

### Supreme Court to hear 5-year-old lawsuit

LINCOLN, Neb. (AP) — Concern over dwindling water supplies and the need to hang onto the precious resource will come before the U.S. Supreme Court Tuesday as a pair of Colorado ranchers and the state of Nebraska argue over water rights.

A lawsuit challenging a Nebraska water law that prohibits the transfer of water from within the state's boundaries to other states has been seeping through the courts since 1977. The Colorado men say water is a commodity that may be transported between the states under the commerce clause of the U.S. Constitution.

Ten western states, including Colorado and Wyoming, have taken an active interest in the case, filing briefs as "friends of the court" supporting Nebraska's position. The states are concerned that if Nebraska's water-control laws are compromised, theirs may follow.

Nebraska Assistant Attorney General Rod Anderson, who will argue the state's case, wants the Supreme Court to confirm Nebraska's right to limit the distribution of water outside its boundaries.

The heart of the issue, according to Anderson, is whether the commerce clause applies to water. Under the clause, Congress has the ultimate power to regulate commerce among the states.

Challenging the Nebraska water law are Joy Sporhase and Delmer Moss, who together own farmland that straddles the Nebraska-Colorado border. The property in Phillips

County, Colo., and the piece in Chase County, Neb., are separated by a road.

The two had for several years pumped water through an underground pipeline from a well on the Nebraska property to their farmland on the Colorado side, without having obtained the permit required by Nebraska law.

In September 1977, Nebraska Attorney General Paul Douglas filed a lawsuit against the men to stop the water transfer until the permit of Water Resources.

But according to Nebraska law, to get a permit to transfer groundwater from Ne-

continued...Colorado Ranchers, Nebraska Argue Over Water  
Supreme Court to Hear 5-Year-old Lawsuit

braska across state lines, the state in which the water is to be used must grant reciprocal rights. Colorado does not.

In Chase County District Court, the first legal test of the matter, Judge Jack Hendrix ruled in favor of the state. In May 1981 the Nebraska Supreme Court upheld the lower court on appeal by Sporthase and Moss.

Representing the two before the U.S. Supreme Court is Richard Dudden, an attorney from Ogallala who will argue that because water is an article of commerce, Nebraska cannot require a permit to transport under-

ground water from one state to another.

Nebraska's water is not subject to the commerce clause, Anderson argues, because "Nebraska does not recognize water as a commodity that can be owned, traded, bought or sold."

Judge C. Thomas White, writing the majority opinion in the Nebraska Supreme Court decision, agreed. The state's ground water has never been "reducible to private possession and freely exchangeable for value," he wrote.

A decision that the commerce clause does apply to water "can lead to a race to the bot-

tom of the aquifer," Anderson said. "If our own water is being transferred across state lines freely, why not just use up all our water?"

One state submitting a brief to support Nebraska is New Mexico, where a district court decision is pending in a similar case.

The city of El Paso, Texas, has challenged a 1953 New Mexico law that bans the export of ground water across state lines. El Paso wants to transport more than 23 million acre feet of New Mexico's water for its municipal needs.

Other briefs supporting Nebraska have been filed by four New Mexico irrigation districts and other organizations including the National Wildlife Federation and the National Agricultural Lands Center. Other states filing briefs supporting Nebraska are California, Utah, Nevada, Kansas, North Dakota, South Dakota and Missouri.

# Erosion creating problems for Weld farmers

TRIBUNE 3-31-82

By BILL JACKSON  
Tribune Staff Writer

KEOTA — The 60-mph winds pushed tumbleweeds down Colo. 14 in a steady stream. A dust cloud billowed north of the highway and just west of this northeast Weld County community.

Along Weld 103, between here and the highway, the blowing dirt blotted out the sun. The fence along the west side of the county road — what's left of it — is buried in a collection of weeds, topsoil and sand. The adjoining field is virtually bare; young wheat plants sliced off at ground level by the biting sand.

A mile to the southwest federal, state and private pastureland is buried under 1 inch or more of dirt. Another fence line, with only the tops of the posts showing, has prevented further damage to the pastureland. A green, four-wheel drive tractor is straining against the wind and 30 feet of equipment it is pulling in a field just north of this fence line.

"He's trying to break it (the soil) up to keep it from blowing more," Ron Miller shouted over the wind. "It looks like it's slowing it down (from blowing more), but he'll just have to do it again the next time the wind blows. This (the buried fence line) has

happened just this year; it wasn't like this last year."

Miller, district conservationist with the Greeley office of the Soil Conservation Service, said the blowing dirt and buried fence lines reminded him of the 1930s. Old-timers in the area have said it reminds them of the start of the Dust Bowl days of the 1930s.

The land which was blowing earlier this week was just part of the some 25,000 acres of Weld grassland bought by foreign investors since 1979; investors who have converted that grassland to cropland.

"There are some local people out

Johnson, along with Edith Phillips who has a ranch near Keota, and others in this area, have attempted without success to find a solution for the problem. Phillips filed suit in district court in Greeley against Thomas earlier this month claiming that land Thomas now owns was grazed for more than 50 years before he plowed it in 1979, 1980 and 1981.

"(Thomas) knew or should have known that the land surrounding plaintiff's property was not suitable for cultivation at the time he acquired it," Phillips says in the suit. Flowing, she claims, destroyed natural cover, causing weeds and dirt to blow. She claims loss of income, along with mental and physical anguish and asks \$50,000 in actual damages and \$150,000 in punitive damages, requesting a jury trial. Thomas hasn't filed an answer to that suit.

Johnson explained that is just one of the many actions taken by persons in the area.

here who have broke up some grassland, but not on the scale we see here. And the local people manage the land better than what we are seeing here," Miller explained. He also noted that erosion problems, if the land is not properly managed, do not show up for three or four years, using as example a quarter section plowed and planted last fall, which was not blowing, to the land initially disturbed in 1979, which was causing all the problems earlier this week.

The Dust Bowl days of the 1930s and wind erosion problems in the 1950s taught farmers in the grasslands that such practices as strip farming —

planting in strips across the field provide ground cover to stop blowing dirt — and residue management leaving a residue in a field following harvest — were needed. Since that time other conservation practice have also been developed, including putting cropland back into grassland. Earlier in the day Miller had go over maps of the land purchased by Robert Thomas of Fort Morgan starting in 1979, in an effort to determine suitability of that soil support crops. Thomas, since that time, has sold much of that land to Canadians.

"I've called the local representative of the state land commission ... there is a law that gives county commissioners power to do something ... we saw what was going to happen out there years ago and no one has done anything about it," Johnson said.

Tony Sabantini, administrator of the state land board, said he doesn't "know of a law at the present time" the state can use to collect damages on state land, "but our legal people are studying the situation; we are acutely aware of it."

Bernie Spanogle, with the U.S. Forest Service in Greeley, said the federal government attempted to "do

something about the situation in Comanche Grasslands in the southern part of the state, but lawyers said government had no way of winning law suit and the government pulled out."

Johnson, who said it will probably cost him \$5,000 a mile to repair fences in the area and may yet seek a court decision to get at least part of the cost, remembers the 1930s as a child.

"I was a kid over in Fort Collins the 30s and I saw my dad disappear a dust cloud trying to get to so. It scared the hell out of me. I learned then that you can't plow shallow ground."

## ☆ Erosion

The maps at the SCS office indicated that between 20 percent to 50 percent of the land in this part of the county has Class VI soil — non-cropland suited. Land recently purchased by a Canadian investor northeast of Riverside Reservoir, along the Weld-Morgan county line, according to SCS records, contains sandy soil which "tends to blow without a crop cover." That land historically has been rangeland utilized by ranchers as grazing for cattle.

"Conservation practices have not been utilized on this land in this

# Canadian landowners are plowing pastures

3-31-82

By JOHN SEELMEYER  
Tribune Staff Writer

Canadian investors have purchased nearly 25,000 acres of Weld County land in the past year, and federal records indicate the Canadians plan to convert most of the land from pasture into cropland.

The Canadians' plans to plow under grassland and use the ground for grain crops holds the potential for quick profits, but worries some farm officials.

- 960 acres south of Grover purchased by Emerald Investments 1972 Ltd., a company headquartered in Calgary, Alberta.
- 5,280 acres between Briggsdale and Keota purchased in by James R. Wood of Pense, Saskatchewan.
- 4,120 acres west of Keota purchased by Trigull Farms Inc. of Marquis, Saskatchewan.
- 320 acres near Buckingham purchased by David and Shelley Froehlich of Marquis, Saskatchewan.

The registration statements show Payant Brothers Ltd., Emerald Investments, and Wood all plan to plow under pasture land in preparation for the planting of grain crops.

The 2,000 acres owned by Payant Brothers includes 1,840 acres which are listed as pasture.

"It is the intention of the foreign owner to plant all the property in wheat," the firm's registration statement says. "The foreign owner hires local farmers on hourly rates to break ground and plant crops."

Emerald Investments, meanwhile, said it plans to convert 840 acres of pasture into cropland. Wood's holdings include 2,512 acres of pasture which he plans to plow.

The worried observers say the plowed-under grassland may be subject to severe wind erosion — a process which already has begun on some recently plowed land in northeast Weld County.

The Canadians are the only foreigners to own farmland in Weld County, according to records on file at the Weld County office of the federal Agricultural Stabilization and Conservation Service. Under a 1979 federal law, foreign owners of

The land owned by Trigull Farms and the Froelichs is existing cropland, and neither said they plan any change in their status of their land.

None of the land purchased by Canadian interests is in the prime, irrigated area of central Weld County. Instead, it is located in the dryland of eastern Weld County, an area noted for wheat and natural grasses.

Records at the ASCS office show the Canadians paid from \$175 to \$291 an acre for land which is predominately grassland. Typically, Weld County grassland sells for \$125 to \$175 an acre, says Greeley real estate broker Ivan Gilbaugh. Wheat land, meanwhile, can sell for anywhere from \$300 to \$500 an acre, depending on its location, Gilbaugh said today.

Foreign ownership of farmland generally isn't cause for alarm, says Warren Trock, an extension economist at Colorado State University. He adds that national studies have shown foreign ownership isn't a significant factor for American agriculture.

Nevertheless, Farmers Union spokesman Carter notes U.S. Department of Agriculture statistics show that foreign owners of U.S. farmland tend to be lax in their

farmland are required to register their holdings.

A check of county records of land ownership, however, shows at least one major purchase of Weld County farmland by a Canadian investor hasn't yet been registered with the ASCS.

Bert Wildfong of Craik, Saskatchewan, bought 12,297 acres northeast of Riverside Reservoir along the Weld-Morgan county line from Packard Ranch Inc. of Brighton Dec.

30, according to a deed filed at the time of the purchase.

Federal law requires that registration statements be filed by foreign owners of farmland within 90 days after a purchase is completed.

Wildfong, who is staying in Lucerne while plowing is done on the grassland he purchased, wasn't available for comment this week.

David Carter, a spokesman for Rocky Mountain Farmers Union, says Farmers Union officials have "very

heavy suspicions" that many foreign purchasers of Colorado farmland either ignore the federal registration law or circumvent it through the establishment of dummy corporations.

Canadian purchases of Weld County land which have been registered at the Greeley office of ASCS include:

- 2,000 acres north of Briggsdale purchased by Payant Brothers Ltd., a corporation based in Assiniboia, Saskatchewan.

The most current USDA figures available show foreigners owned 319,737 acres of farmland in Colorado at the end of 1980, an increase of 37.5 percent from a year earlier.

Most of the increase came as corporations, rather than individuals, bought more Colorado land, the USDA figures show. In 1980, 11 individuals bought about 4,500 acres in Colorado. During the same period, 80 corporations or other business entities bought 116,000 acres.

Farmers Union spokesman Carter says Canadians account for "almost all" of the foreign ownership of farmland in Colorado.

Colorado, he says, has no laws which restrict foreign ownership of farmland. Thirty states have restrictive laws.

In addition, Carter says the USDA has found foreign owners often don't patronize businesses in nearby communities.

Tim Larson, a marketing and transportation specialist for the Colorado Department of Agriculture, is concerned that some of the foreign buyers may be looking to make a quick profit by converting grassland — which generally sells cheaply — into more valuable cropland.

In 1979 and 1980, Larson says, about 42 percent of foreigners' purchases of farmland nationwide didn't involve any cash and were exclusively credit transactions. That's up from only 27 percent in the years before 1979, he says.

"The big jump in credit-only purchases frankly scares the hell out of me because the easy way is to buy grassland, convert it to cropland, then sell it for a profit without really investing any money," the state agriculture official says.

# Believers join hands in prayer for rain

By PHYLLIS HAMMOND  
Staff Writer

Reading passages from the Bible or standing silently listening, nearly 100 believers joined hands in the middle of a dry, dusty field and prayed for rain.

As if on cue, they dropped to their knees in the dirt, and for the next 30 minutes all that was heard were the voices of men and women as they asked God to send rain for their crops.

Cars lined the highway east and west of the John Kness farm and the driveway was packed with automobiles as local farmers and their families joined several ministers in a rain ceremony Saturday morning. The irony was that they were praying for rain and there wasn't a cloud in the sky.

The sun was shining brightly overhead as the Rev. Howard Huff, Trinity United Methodist Church, led the flock of rain-seekers to the field located six miles East of Loveland on Highway 34 to begin the prayer ceremony. He was joined by the Rev. Burton Swardstrom, Evangelical Covenant Church; the Rev. Paul Barnes, Evangelical Free Church; and the Rev. Glenn Brown,

Church of the Good Shepherd.

With no moisture to speak of, soil has been blowing away in the powerful winds sweeping through Loveland lately. Area farmers, concerned about the seriousness of the situation, decided to have a prayer ceremony to ask God for rain.

Kness told the people gathered, "We're standing on old beet ground. When we farmers plant on old beet ground, we figure to have a good crop. As you can see, there's no crop here."

After introducing himself and the other ministers, Huff said, "You didn't come here to listen to a sermon. You're going to get that tomorrow. We're here because we need moisture and we're here to pray for rain."

Huff told his listeners about a similar rain ceremony in Texas in 1953. According to Huff "there was a terrible drought in Texas," and Billy Graham instigated a prayer ceremony. "They expected 100 to 200 people — they had 10,000 people show up," said Huff. "It was unbelievable. It made such an impression on me that I never forgot it."

"I've been on my knees more than once on ground

like this," Huff said. "And we've promised the Lord that after it rains we'll return again to this place and we'll get on our knees and thank Him. And when we get up we'll have mud on our knees."

At Huff's request, people in the crowd stepped forward to share Bible passages. Eighty-year-old Jay Royer came forward immediately, supporting himself on a cane. "I don't claim to be wise," he said, "and I'm no pastor. I'm just an old-timer but I have a request." He asked Huff to read 2 Chronicles 7:13-14.

Huff quoted the verses: "If I shut up Heaven that there be no rain, or if I command the locust to devour the land, or if I send pestilence and plagues among my people; if my people, who are called by my name, shall humble themselves, and pray, and seek my face, and turn from their wicked ways; then will I hear from Heaven, and will forgive their sin, and will heal their land." After hearing the verses, several others in the crowd joined in with requests of their own.

Standing shoulder-to-shoulder with Huff, the Rev. Paul Barnes read from the Bible, then said, "The problem we're here to pray about is a problem of our coun-

try, so we need to pray for our country." Out of the crowd came a rumble of "amen" as the farmers voiced their agreement.

"About six years ago I was told I had incurable cancer and that I had three months to live," said the Rev. Swardstrom. "And I'm still here. Maybe this is the time the people here in Loveland realized God is alive and well."

"Father we need showers," he said. "The land is parched, the land is barren." Voices were raised in verbal agreement, almost drowning out the rest of what Swardstrom had to say.

Occasionally during the prayer meeting, someone would rise to ease his cramped muscles, but no one left before the end of the ceremony.

At the end of the half hour, everyone joined in the Lord's Prayer and sang several songs before leaving. As the farmers left the field and moved back to their cars, they encouraged each other to be optimistic and Swardstrom urged "each of us to commit ourselves to 15 to 20 minutes of prayer today on the topic we've just discussed."

# Water district lists quotas for delivery

*TRIBUNE 4-13-82*

LOVELAND — The Northern Colorado Water Conservancy District board of directors has declared a 60 percent water delivery quota for 1982 Colorado-Big Thompson Project deliveries, making 186,000 acre-feet available to district allottees this season.

The board made its decision after reviewing snowpack and runoff reports which indicate that 90 percent of the snow season has passed and an average runoff should be expected.

In comparing snowpack reports, board members were advised that while Western Slope watersheds of the Blue and Colorado rivers and Willow Creek were approximately 102 percent of average, East Slope snowcourse measurements on the Poudre, Big Thompson and St. Vrain rivers indicated some of the lowest water content in the state, just near the historical average.

Storage levels in C-BT reservoirs are approximately even with the amounts held at this time last year. Although the reservoirs (Granby, Horsetooth, Carter, and Boulder) are currently holding only 44 percent of capacity, that figure represents 78 percent of average for this date.

Local and ditch company storage facilities are faring even better, board members were told, using 59 percent of their capacity which translates into 102 percent of average for this time of year.

Present storage in C-BT project reservoirs would allow the NCWCD to increase the quota if precipitation falls below normal during the summer. In taking the action, the board stressed its assurance to district water users that an additional quota release would be made when and if the need becomes apparent.



*Reporter Herald 4-21-82*

# \$50,000 given for Windy Gap excavation

GRANBY (AP) — The National Trust for Historic Preservation has donated \$50,000 for the emergency excavation of what archaeologists say may be the oldest known buildings in North America.

The structures constructed in daub and wattle — the ancient equivalent of concrete — are located at Windy Gap, not far from this mountain town west of the Continental Divide.

They are also directly in the path of a right-of-way for a water pipeline being built by the Northern Colorado water conservancy district. The conservancy district, however, has agreed to delay clearing the site until July 31 to allow excavation.

Arthur C. Townsend, Colorado state historic preservation officer and a representative of the Colorado Historical Founda-

tion, said radiocarbon dating has revealed the ruins to be between 4,000 and 5,000 years old.

Before the structures were discovered last fall, the oldest known buildings in North America were estimated to be 2,500 years old.

"Archaeologists think the remains survived for so long because a fire passed over them and baked the wattle and daub walls into a brick-like substance," Townsend explained. "Wattle and daub usually decay in 200 years. If that is true, the Windy Gap remains may be unique."

He said archaeologists had not yet found any artifacts of the people who built the structures.

The conservancy district already has paid \$95,000 for excavation and to cover the cost of construction delays. The National Trust was asked to support part of the cost of

additional excavation after the Interior Department said it was not authorized to fund such projects on private land.

Total cost of excavating the ancient community is estimated at \$135,000, while several archaeologists have promised to donate \$35,000 of their time, according to Townsend.

The new \$50,000 grant is drawn from the National Trust's endangered properties program, which was established four years ago as an ultimate line of defense for valuable historic landmarks. It is to be funneled through the Colorado Historical Foundation.

Additional funds may be sought to preserve remains outside of the path of the pipeline, Townsend added.

The water line is designed to bring water from the Western Slope to northern Front Range communities.

*Fort Morgan Times 5/11/82*

# Commission Votes Against BFI 6-0

By TIM CREWS  
Times Staff Writer

After hearing nearly 12 hours of testimony in Strasburg Monday, the Adams County Planning Commission voted to recommend denial of Browning-Ferris Industries' conditional use permit application for 1,184 acres of land in a 5,700-acre parcel west of Last Chance.

BFI sought the permit for a hazardous waste operation in an A-3 agricultural zone district.

The commission, which voted 6-0 with one abstention against the permit, supported the Adams County planning staff's recommendations but added two strong reasons of its own. In moving to recommend denial, Rosemary Pomponio added to the staff statements of incompatibility and inconsistency provisions. "The supreme concern for the health, safety and welfare of Adams County residents."

She also said that BFI's failure to secure water for the site was an important element of the denial and was listed as the fifth of six grounds.

On that issue, BFI had introduced a contract with Wayne's Tank Service of Byers, for 10,000 gallons to 20,000 gallons per day of non-potable water and 400 gallons to 600 gallons per day of drinking water.

But District Water Commissioner Bob Samples was called as a witness by Joe French, representing the Concerned Citizens of Eastern Colorado (CCEC). Samples said BFI's water lease — which was signed May 7 and introduced at the last minute by the BFI attorneys — could not supply water to the site.

Samples said that during the hearing's noon recess he had checked with Wayne Pitkin, owner of Wayne's Tank Service. "I asked him where his source of water would accrue." Samples testified that according to the state engineer's office, Pitkin's water comes from Melvin Helzer's wells in the Lost Creek Basin. That water may not be exported from that area without special authority from water management officials.

"Jerry Danielson (the state engineer) said it could not be used

because it is in a designated basin."

Samples was called late in the day. The water contract, introduced by BFI in the morning, was only one of several surprises.

The planning commission staff and Adams County attorneys had cautioned the board that its review should be limited to land use, the comprehensive plan and questions related to those points. BFI, after objecting to the scope of the review, launched into nearly three hours of technical presentation.

At noon, Commissioner Charlene Molden expressed anger over the scope of BFI's testimony and said it conflicted with what the commissioners themselves were asked to judge. "This is a bunch of crap," Mrs. Molden said.

Most commissioners, however, expressed interest in the full operation saying that it bore on the health, safety and welfare of area residents.

BFI's experts reviewed testing, chain of command and receiving procedures.

Their slide show was interrupted by Adams County Community Planning Director Jim Considine who seized upon the question of how many other

sites had been approved. "Is it possible the number is zero?" he asked BFI experts.

An environmental counsel for the corporation, Barbara Little, said, "Certainly, several states...I'm personally not aware..."

Commissioner Gordon Schick probed on BFI's market studies, trying to determine the percentage of Colorado hazardous waste volume destined for the site.

BFI's position is that the quantity and type of waste are difficult to nail down because of a number of factors, including the potential closure of the Lowry landfill near Aurora.

BFI expert Dr. Mark Carter and BFI attorney Paul Hulin both said that BFI had had little to do with acquisition of the site. Carter said he came into the project in early December, 1980. BFI broke ground there just before the Nov. 19, 1980, U. S. Environmental Protection Agency cutoff, after that time more stringent rules would have applied.

Hulin said that BFI acquired the Highway 36 Land Development Co.,

(Continued on Page 9)

# Commission Votes 6-0 Against BFI

(Continued from Page 1)

Inc. and with it acquired the site. The multi-national waste disposal firm has been using Phil Spano and Fritz Easterberg as consultants. They were both principals in site acquisition. Easterberg, according to BFI public affairs spokesman Don Fitch, negotiated the water lease presented at the Monday hearing.

BFI Colorado District Manager Steven Custer directed his comments in testimony to the land use, compatibility and related issues. He illustrated his comments with slides showing BFI drawings of proposed phase II construction and compared them with slides of the Jolly Ranch, Gene Linnebur's maintenance building and grain silos on Linnebur's ranch. It was from Linnebur that property for the disposal site was purchased.

Custer and another BFI expert, Steve Thompson, said that kiln dust would be the preferred mixing material because of its greater water absorption qualities and ability to combine with waste. Thompson did say, on questioning, that BFI could not exclude out-of-state waste.

When Brush City Attorney Bo Chapin wanted to question Thompson, BFI objected on procedural grounds that Brush had not attended a pre-hearing conference. Chapin explained that Brush had had insufficient notice, and said, "We have been a party of interest since day one." Chapin queried Thompson on the resistance of the material to leaching, the draining of waste from solidified material. Thompson said it would not occur.

Schrick returned several times to question BFI on other sites of similar design. Custer said, "I can't answer that."

Porreca and Associates, Boulder-based planning firm representing the CCEC, and its witnesses fielded a volley of questions from planners, land use experts and people from related fields. They attempted, for the most part, to stay within the land use and zoning questions.

But Vince Porreca of the firm read background material on the site including memos from county planning staff indicating that Easterburg had called on Dec. 2, 1980, and said that receiving of waste was to be received at the site "right away or within a week or two." He outlined a District Court order prohibiting further construction and activity on the site, an order sought by the county itself.

Porreca read from BFI's application, "No formal land use plan exists in Adams County." Porreca said that the failure of the applicant to understand that the land in question was a part of the county's plan was a fundamental problem. He also pointed to other inconsistencies such as the height requirements — BFI plans 110-foot silos and Adams County says 90 feet is allowed for television towers.

Sandy Cooper of Boulder, a planner now working on a doctoral thesis on the effects of the removal of agricultural land from production, testified to the negative effects of the project in a strictly agricultural area.

When asked about "procedures," Ms. Cooper said, "A set of land use regulations (zoning) which you may or may not know is a tool with which to implement the land use plan." Ms. Cooper spoke of gradual erosion of the agricultural base and said there were inconsistencies in BFI's plan.

Dr. Jim Huckabay of Denver testified that BFI's plan had the right arithmetic but the wrong assumptions. Huckabay also raised other pollution issues.

After CCEC's experts and local witnesses, about two hours of objection was heard from individuals. Only the Colorado Association of Commerce and Industry spoke in favor of the site.

The commission recessed briefly and reconvened to hear final arguments. The vote came at 8:50 p.m.

James Spaanstra, an attorney for BFI, said of the decision, "Well, it's on to the 24th." On May 24 at 9 a.m. the Adams County commissioners will hear both the conditional use and certificate of designation testimony. They will hold that hearing in the same location, the Strasburg High School gymnasium.

# Spring Storm Welcomed

## By Farmers

*Boulder*  
5-13-88 By TODD MALMSBURY  
Camera Staff Writer

The most intense storm to hit Boulder County in four years dumped nearly 4 feet of snow in the mountains, drenched the plains with more than 3 inches of moisture and broke one of the worst early year droughts in Boulder history.

The wet snow caused utility lines to sag, knocking out power early Thursday morning for most of the county's mountain dwellers and in part of Table Mesa. The impassable roads forced Public Service Co. to use helicopters to get repair crews into the high country to repair the lines Thursday, said spokesman Kent Mueller.

Schools were closed in the mountains as roads became clogged with snow in the early morning hours. Superintendent of Schools Pat Ryan said late Thursday he was unsure whether the mountain schools would reopen today.

The storm caused treacherous road conditions, forcing closure of Boulder Canyon in the early morning hours. Abandoned cars were scattered along mountain roads and were completely buried by the heavy snow.

### 46 Inches of Snow Measured

A resident of Coal Creek Canyon in southwest Boulder County measured 46 inches of snow on the ground at 10 a.m. Thursday morning. In Nederland, 39 inches of snow were on the ground Thursday.

At 7 p.m. Wednesday, Sheriff's Deputy Robin Turcotte said only 7 inches of snow had fallen along the Peak-to-Peak Highway.

"Late (Wednesday) night it really started snowing," said Bonnie Trzebiatowski, Nederland. "Early (Thursday) morning it was snowing about 2½ inches an hour. I measured 39 inches at my house (Thursday) morning."

Tom Schlatter called the storm "one of the most intense of the last decade." Schlatter, a research meteorologist at the National Oceanic and Atmospheric Administration, said only one storm in the last 10 years, the record-breaking snow storm in May 1978, produced more moisture.

The strong upslope storm, which pulled moist air in off the plains and up against the mountains, dropped a surprisingly uniform amount of moisture throughout the county.

Dave Baumhefner, a research meteorologist at the National Center for Atmospheric Research, measured 3.25 inches of precipitation at his home near 75th Street and Baseline Road.

Schlatter measured 3.22 inches at his home in southeast Boulder. And Richard Keen, another NOAA meteorologist, recorded 3.3 inches at his Table Mesa home.

### Ditches Filled With Cars

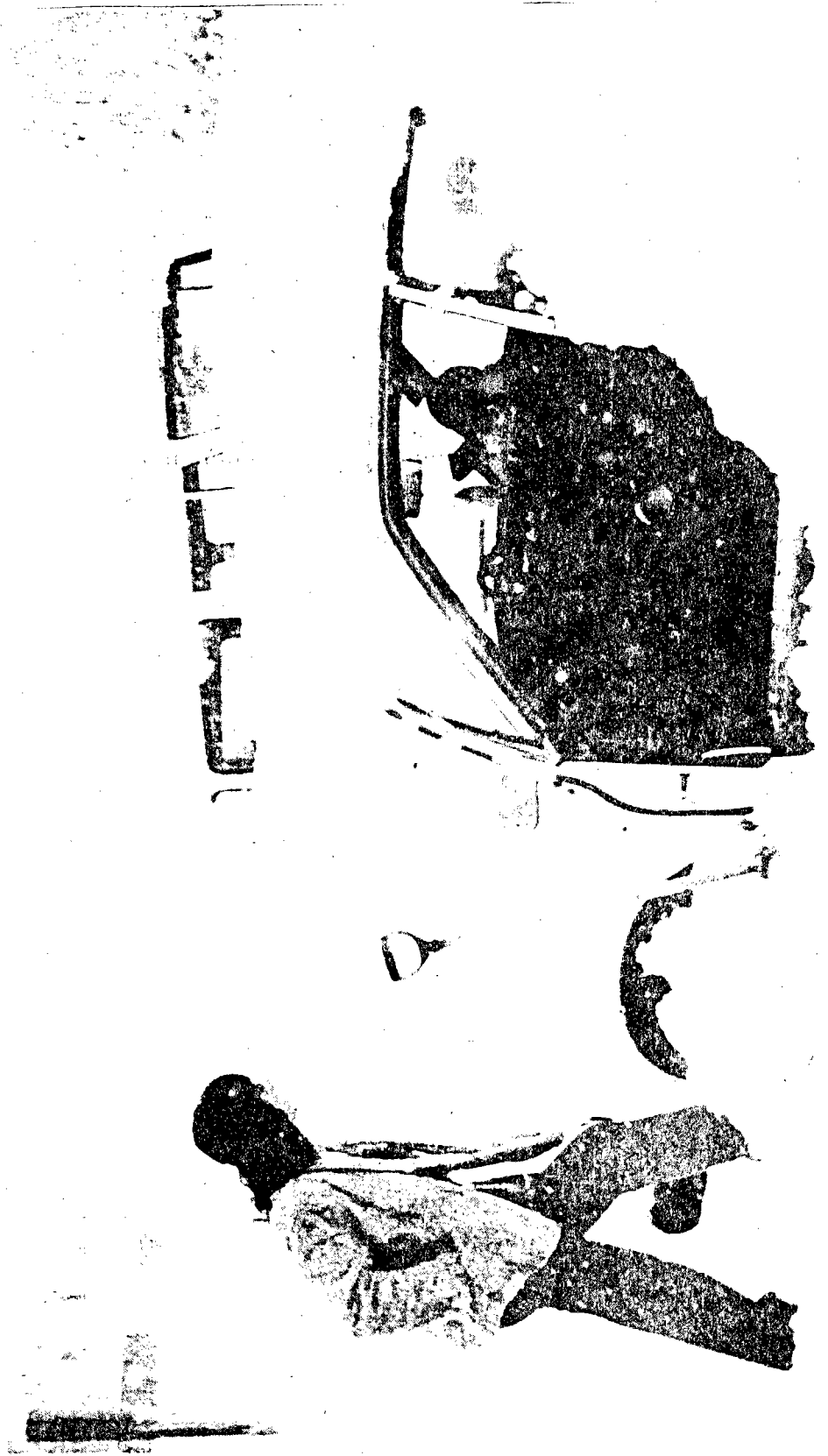
"There were quite a few people in the ditches," said Nederland Patrolman James Steward, who worked Wednesday night. "The last time I saw something like this was in Alaska."

But the storm was perfect for farmers.

"We were pretty near a disaster state," said Chuck Bliss, the county agricultural extension agent. "Some crops will never recover, but I think we'll get a pretty fair wheat crop."

The National Weather Service in Denver predicted the precipitation would end Thursday night, with partly sunny skies expected this morning.

However, the chance for rain will return Friday afternoon as slowly warming temperatures and humid air combine to produce scattered showers and thunderstorms, the agency said.



5-13-82 Boulder

Camera Staff Photo by Jerry Cleveland

SNOWED IN — The intense upslope storm that drenched Boulder dumped nearly 4 feet of snow in some areas of western Boulder County Thursday, burying cars and forcing

these people in Nederland to dig out their car. The storm was one of the most intense in the last 10 years along the Front Range. Story, Page 17.

## **Water well owners 'fail' to prove oil complicity**

*Tribune 5-18-82*

DENVER (AP) — A hearing officer for the state Oil and Gas Conservation Commission says a group of Weld County residents failed to prove that leaking oil or gas wells had contaminated their water.

The Weld County group showed up Monday before the commission carrying plastic jugs filled with what they claimed was gas-polluted water.

"The plaintiffs have failed to find that the pollution of water is caused by an oil or gas operation," hearing officer Howard Schmidt ruled.

"I can understand your problem," he told the Weld County residents, "but there was a failure of proof."

If the water-well owners can prove that gas or oil wells are the cause of the pollution, the commission could order the owners of the gas or oil wells to come up with a remedy.

About 100 people attended the hearing, and many said after it was over that they had expected to commission to find at least one oil company liable for the problem.

"They just laugh it off," said William Von Feldt of Hudson. "The oil companies are just sitting back laughing that they are innocent until we prove them guilty."

The issue came to a head after Von Feldt said he was forced to sell his dairy cattle at a loss of \$1 million because gas polluted his water last

winter.

The task force made preliminary findings that the gas was methane generated by the decay of underground organic matter. The task force also concluded the gas, in the concentrations observed in the study, is not harmful to humans or animals.

Ron Stow, head of environmental protection for the Weld County Health Department, said the task force is still about three weeks away from releasing its final report.

Still to be settled is a discrepancy in tests conducted separately by the state and by David Stewart of James H. Stewart & Associates of Fort Collins. Unlike state tests, which turned up mostly methane, Stewart's tests turned up other gases as well, including benzene, a known carcinogen sometimes found in natural gas.

It is because of Stewart's tests that residents say they believe the source is leakage from oil or gas wells rather than a natural phenomenon.

William Dunn, chief chemist for the state Department of Health, said Monday he had "no idea" why the Fort Collins laboratory found benzene in the water samples. "I am quite confident that there is no benzene in that water," Dunn said, but he said more tests will be run as a precaution.

# Colorado-Big T board to continue 60% water quota

*Tribune 5-18-82*

LOVELAND — Citing nearly average streamflow forecasts from snow courses tributary to the Western Slope storage reservoirs of the Colorado-Big Thompson system, a nearly average total water supply outlook, and improving local soil moisture conditions, the Northern Colorado Water Conservancy District board of directors has voted to continue the 60 percent 1982 water delivery quota set last month.

The board met late last week. Before reaching the decision, board members examined the latest snowpack and runoff reports prepared by the operations and maintenance staff. However, the board also discussed its ability to raise the quota anytime in the future as the overall water situation changes.

Snowpack reports indicated that the Western Slope watersheds of the Blue and Colorado rivers and Willow Creek contained approximately 111 percent of average water content. Those three watersheds provide runoff into the three main C-BT facilities on the Western Slope.

Further comparison of project storage — Granby, Horsetooth and Boulder reservoirs, along with Carter Lake — indicated a current measurement of 45 percent of capacity and 74 percent of average for this

date, the board said. However, local reservoir company facilities, which include the Cache la Poudre, Big and Little Thompson, St. Vrain and Left Hand and Boulder Creek reservoirs, are faring much better, containing 92 percent of average.

The board also examined local river snowpack statistics that showed water content on the Poudre, Big Thompson and St. Vrain standing at about 94 percent of average. The statewide average is 123 percent of average.

The board compared the most probable water supply figures for the entire tributary service area, estimated at 994,667 acre feet, which represents 86 percent of the 24-year average of 1,158,227 acre feet. Assuming a 60 percent quota, direct river diversions would be 508,000 acre feet, local reservoir companies would release 156,000 acre feet of their storage and C-BT would deliver 186,000 acre feet ending in a total Northern Colorado Water Conservancy District use of 850,000 acre feet.

Carry-over storage for next season, using the 60 percent quota, would be 178,974 acre feet, the board said, or 80 percent of average by local reservoir companies, while C-BT reservoirs would hold more than 334,800 acre feet into 1983, or 79 percent of average.

*Tribune 5-18-82*

# Dry water well cited in move

By STEVE KANIGHER  
Tribune Staff Writer

After his parents retired to Nebraska last spring, William Ketter and his wife, Marge, moved into a quiet countryside house that had been owned by the family since 1952.

At 3029 C St., across the street from Greeley city limits, the Ketters were happy with the house until they discovered last May that production from the 82-foot-deep domestic well in their backyard was noticeably decreasing.

"We'd flush the toilet and there wouldn't be as much water filling up the tank," he said.

By September, the well went dry, the first time that had ever happened in Ketter's memory. Fed up with alternatives available to them, the Ketters moved earlier this month to Denver, where they both work.

"The dry well was the final blow that

made us decide to move," he said.

Ketter admits that the drought probably has something to do with the state of his well, but he said he believes there are two man-made factors as well. One, he said, is the development in recent years of subdivisions in north Greeley, which prevent large portions of rainwater from getting into the ground. Instead, the water is drained directly to the nearby Poudre River.

He said the other reason comes from gravel pit operators in the area who discharge groundwater into the river as they dig deeper.

"You can't remove all that water and not damage someone somewhere," said Ketter, whose house is upstream from at least one such operation.

Fellow C Street residents Dave Becker and Ed Rady both agree with Ketter, saying a combination of all three factors probably is responsible for the dry well.

"They're not helping by pumping underground water into the river," Rady said of gravel pit operators.

However, at least one gravel pit operator, Flatiron, has agreed to help ease the concerns of area residents by hiring a water engineer from Denver. Margaret Winter, director of resources and planning for Flatiron, said the engineer will determine whether water discharge from the company's gravel pit near 35th Avenue and the Poudre River bridge is affecting nearby wells. Winter said the pit there has been in operation more than 20 years without citizen complaint.

"There's no question mining can affect hydraulic balance," said Winter, who said the engineer's study should be finished within two weeks. "We expect to be a good neighbor."

Meanwhile, the Ketter home on C Street sits unoccupied.



# Northglenn Approves \$148,000 Water Contracts

By SUE LEWIS  
Denver Post Correspondent

**NORTHGLENN** — The City Council approved payment of an additional \$148,800 for contracts and services for Northglenn's \$72 million water and sewer system Thursday night.

Requests for an additional \$130,250 for professional engineering services by Wright Water Engineers and legal services by Musick and Cope were unanimously denied.

The contracts approved include:

- ✓ \$126,766 to Boyle Corporation for inspection work and engineering for the wastewater system performed last November.
- ✓ \$46,100 to Sheaffer and Roland, Inc. for engineering services from last September through December.
- ✓ \$7,233 to Ashby, Armstrong, Johnson and Co. for additional auditing expenses.
- ✓ \$14,136 to Eldon, Inc. for change orders to their contract for construction of a water transmission pipeline.

- ✓ \$120,000 for staff management of the wastewater construction project.
- ✓ \$68,200 for operating and maintenance of the Locke Canal and the Stanley Lake Reservoir.
- ✓ \$23,000 for 1982 assessments for water shares owned by the city.
- ✓ \$29,900 for engineering work for the wastewater treatment facility.

In other action the council:

- ✓ Appointed Jim Wetsel to the Planning Commission and selected Anthony Portararo as an alternate member.
- ✓ Approved an ordinance rezoning 5.4

acres at East 116th Avenue and Community Center Drive from agricultural to conditional residential to allow the construction of 87 townhomes by Villas at Northglenn. Their proposal calls for 66 two-story, two-bedroom units and 21 one-story, one-bedroom units in a total of 17 buildings. Construction is scheduled to begin within two to four months.

✓ Voted to continue to Feb. 4 a public hearing for a retail liquor store license application for Malley Heights Wine and Liquor, 550 Malley Dr.

# Brighton Water Quality Project Unveiled

BY LUCY CHAVEZ  
Denver Post Correspondent

BRIGHTON — City officials announced last week that Brighton is ready to finalize plans for the first phase of a \$3 million water project designed to improve the quality of the city's water by late 1983.

In a press conference attended by City Manager Ron Hellbusch, Mayor Gary Gilpin, Councilman Jim Nelms and Morton W. Bittinger of Resource Consultants Inc., Hellbusch explained the Beebe Draw Water Project.

The proposal, Hellbusch said, is to take ground water from the Beebe Draw, a 50-acre tract east of Barr Lake, by using a few shallow wells and one deep well. The water would be pumped through a 3-mile pipeline to Brighton storage areas.

Brighton water which is known for its hardness and high levels of nitrate has been a contentious issue for several years. Presently, it is unsafe for infants and babies under a year old, water experts say.

And while it never may be possible to do anything about the hardness, the lev-

els of nitrate can be reduced about 50 percent.

Mixing the water from the Beebe Draw with Brighton's water, Hellbusch said would produce a better overall water quality in Brighton. The low nitrate content in the Beebe Draw would dilute

the high levels in the city's water when combined. Presently, Brighton gets its water from 12 shallow wells located through the city. Also, the city owns about 800-acre feet of water in the Fulton and Burlington-Wellington ditches, which it doesn't use.

The city officials said water shortage isn't the problem, it the quality that needs improvement.

"The project isn't anything that happened over night," Mayor Gilpin said, adding that the city has been working on this since 1974.

Councilman Nelms said the city has kept a low profile with the project, but now is in a position to publicize the proposal.

Last month the city bought the triangular shaped Beebe Draw from Richard Heickendorf for \$127,000. Its location is southwest of Bromley Lane and Piccadilly Road. The site was chosen because it isn't a farming area and therefore doesn't contain the source of nitrate found in fertilizer.

About 15 acres of the property will be made into a recharge pond where water from Barr Lake will be channeled out and left to filter through the ground. This will supply the ground with water so additional water can be pumped from the wells.

# Group needed to represent water conservation

To The Tribune:

From the standpoint of conservation the Big Thompson project, with its supplementary Narrows Dam, was a giant hoax perpetrated on the people of Colorado and the lower Colorado river state. They were assessed that not one drop of diverted West Slope water would leave Colorado. This statement was backed up by plans for one of the leakiest dams every projected. To this date plans for utilization of water which might be impounded are scanty.

Not a drop was to leave the state! The fable created over 40 years ago still remains as the final justification for taking their water from California and Arizona. This statement, on record thought is ridiculous. Where we use water it leaves us by evaporation, as steam developing power, as agricultural produce, as waste water from cities and industry. We cannot keep it. The best we can do is use it as many times and for as many purposes as possible before it

gets away. Fortunately it is not destroyed by use and it returns.

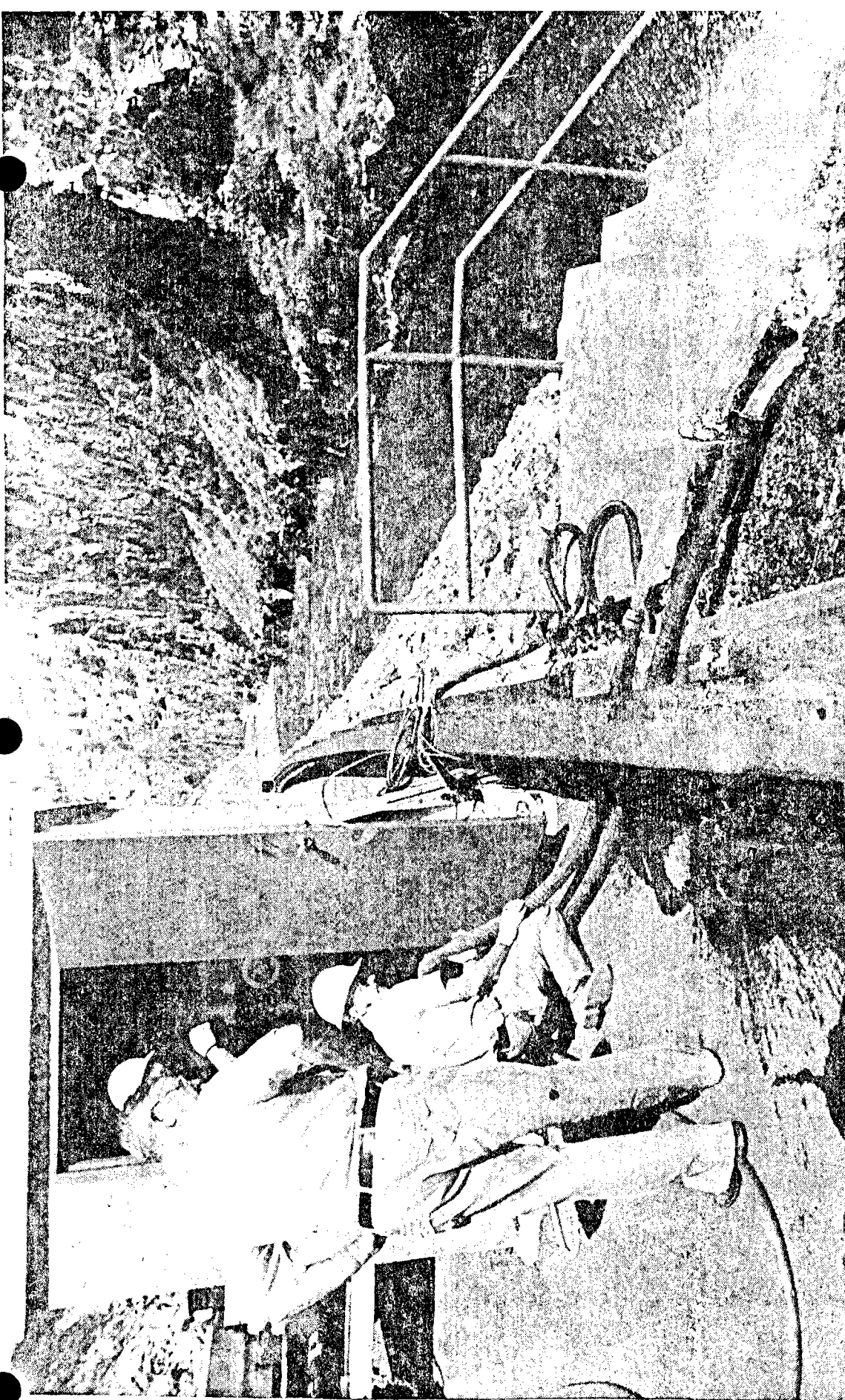
It has been estimated that as much as 200,000 acre feet per year of South Platte water gets away from us while we could still use it. As much as 30,000 acre feet of Big Thompson water has been dumped by Big Thompson at the end of irrigation season. This water was caught in plains reservoirs, but the following year waiting flood water was 30,000 acre feet greater. Can we justify this sort of use of Colorado river water before the people of California, Arizona and New Mexico? It is plain as the nose on your face that the management of our water affairs has been incompetent and misleading and not conservation minded.

What has our Northern Colorado Water Conservancy District board to offer to right this broken promise and perpetrate our right to divert this water from lower basin states? This board appears to be physically and mentally impotent as far as this responsibility

is concerned. Surely their hands are not tied for financial reasons. The water rights of the Big Thompson project in themselves constitute one of the greatest and least burdened assets of the state.

Denver stands ready to develop a metropolitan area which will gobble up Western Slope water to the point where full development of our states very valuable oil shale deposits may be impossible. Who is going to represent us before the state legislature? Who is going to put some sense into our water planning? We need a thinking, well organized institution representing the South Platte watershed below Denver and the area of the state underlain by the Ogalalla aquifer if we are going to progress with water conservation plans. We must recognize that the development of oil shale on the Western Slope as a state problem preceding Denver's rights and wishes.

C.O. Plumb  
Greeley.



*Reporter Herald  
7-13-82*

Photo by JOEL RADTKI

## *Gauge inspection*

Members of the Colorado Division of Water Resources and United States Bureau of Reclamation inspect a well Tuesday at the water gauge station near the mouth of the Big Thompson Canyon. The 25-foot well has a water level corresponding to the level of the Big Thompson's flow. The crews will repair a leak in the seal of the well that has caused inaccurate recordings. Equipment inside the station records the levels 24 hours a day. Bob Bellamy, chief of the water pro-

jects, said other repairs are in progress. He said river flow will be high today and Thursday because the Bureau has released 400 cubic feet of Lake Estes water per second into the river instead of the usual 100 cubic feet per second. The water was drained from a canal so crews can make repairs to the Big Thompson power plant. The Lake Estes release has increased the river's depth by about 2 feet, Bellamy said. The Big Thompson is about 3 feet deep at the mouth of the canyon.

# Wall of

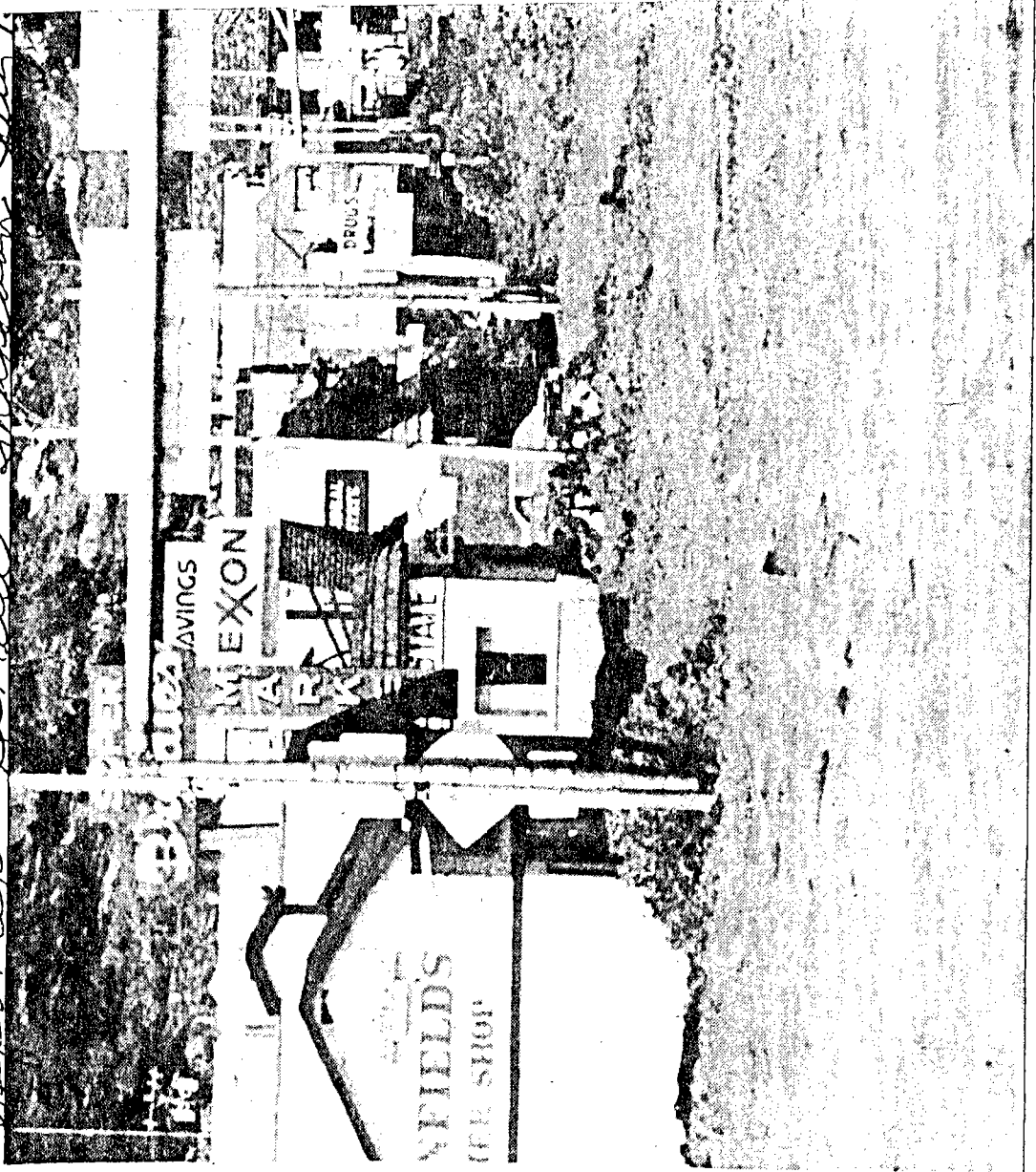
YEAR

LOVELAND, COLORADO 80537

THURSDAY J

# water roars in

*Reporter - Herald - Thursday July 1*



Flood waters from a broken earthen dam in the Rocky Mountain National Park rush through downtown Estes Park Thursday morning.

# Flood waters frustrate

Loveland Reporter Herald

7-15-82 By KEE PETTIT  
Staff Writer

Flood waters that foamed through Estes Park this morning from a broken dam frustrated and inconvenienced residents and visitors alike from the inundated town to the mouth of Big Thompson Canyon west of Loveland.

Emergency personnel were uncertain for several hours this morning whether the flood waters could be safely held in Lake Estes behind Olympus Dam, or if it would spill into the Big Thompson and cause problems downstream.

As a precaution against the possibility the dam would spill, sheriff's officers began explaining the situation to canyon residents and warning them to be prepared for an evacuation.

Traffic traveling up or down the canyon was restricted at 9:45 a.m. with sheriff's deputies allowing to pass only residents or others who could show a pressing need to use the road.

Scores of other people who were planning to visit Estes Park today were stopped and turned back at the Dam Store at the mouth of Big Thompson Canyon on U.S. 34 about 5 miles west of Loveland.

Deputy J.C. Block said she was going door-to-door between Estes Park and Drake, telling people to be aware of the possibility of evacuation and to listen to their radios.

The reaction she got: "With the old-timers — many were not particularly interested in

Emergency information:  
For information concerning relatives or property damage, please call:  
667-5106 in Loveland  
226-5728 in Estes Park

leaving and said they've been through this before." She was referring to the Big Thompson floods of 1976 and 1980.

Block said tourists packed and got to high-ground. She said that behind the municipal building in Estes Park, where hills and cliffs rise above the town, people were picking up and watching the activity in the flooded streets below.

Sheriff's Sgt. McCosh manned the road block at the Dam Store on the lower end of the canyon. He and Loveland Fire Marshal Al Stevens, who had stopped to alert motorists to the problem, turned away several hundred people from entering the canyon.

Area residents allowed through were told about the hazard, and advised to keep a radio handy. He said most people were cooperative except one lady who wanted to go on to Estes Park to keep a luncheon appointment.

Some people lived or had been staying in the Estes Park area and were anxious to return to find family members or find out if their property had been damaged.

The Loveland Police also set up a roadblock on U.S. 34 near the Pottery Factory. Sgt. Mike Wagner said police were advising peo-

ple not to go up the canyon. Martin Bankovich, 39, town Estes Park, was turned as he sought to get home worried about his "family herd named Bear. Bear while Bankovich waited for up the canyon.

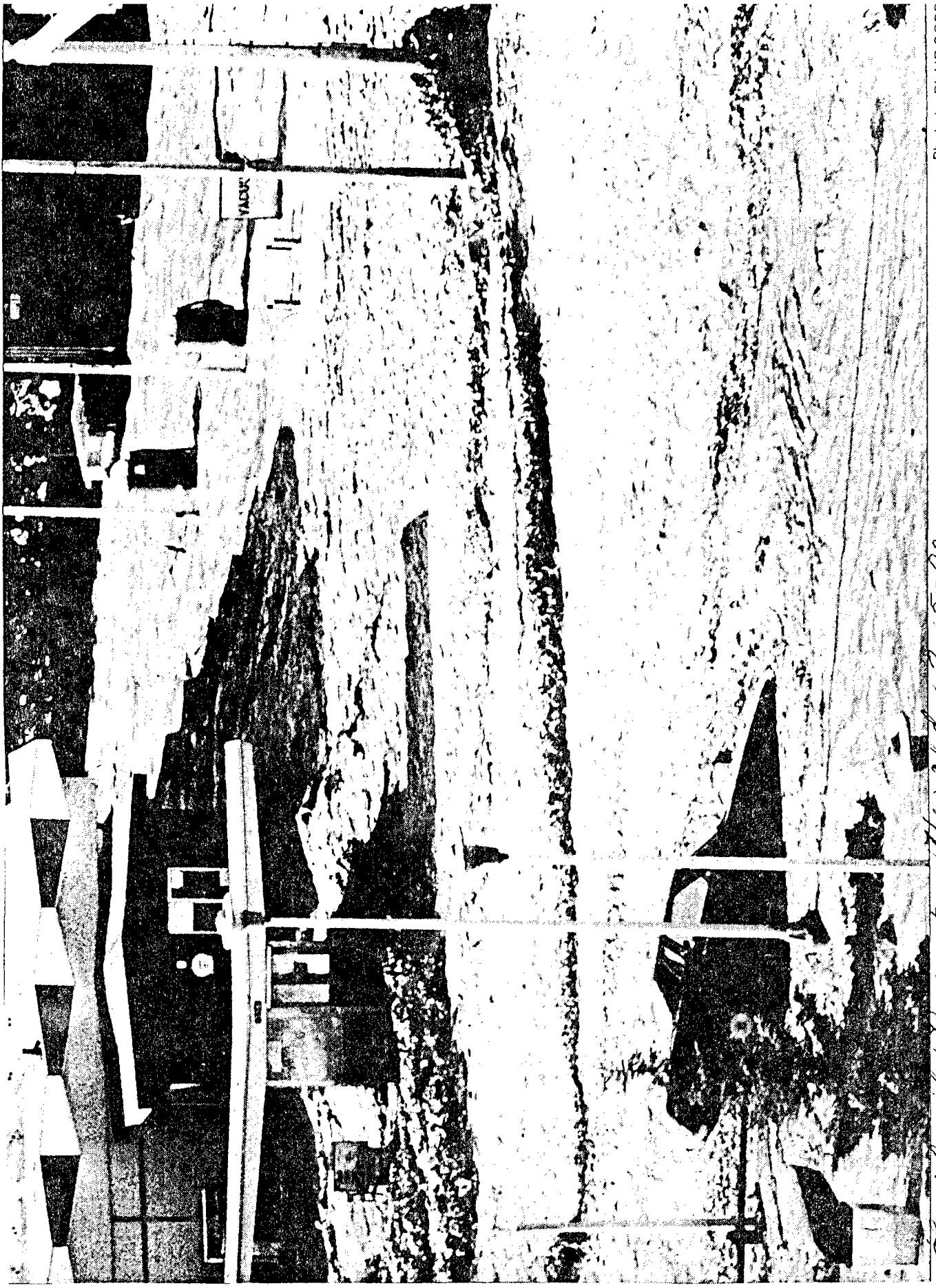
Sonny Black and his far Texas, had been staying ground on the outskirts said the state patrol advised manager at daylight this date.

There was no resulting panic that Black saw. He was helping each other" get Ralph and Helen Brumria, La., had visited the 1 years ago on their honey turning to the area today and Yellowstone National

They said they were glad the sheriff's warning. The into the situation of six y July 31, 1976 flash flood many of whom were caught floodwaters.

The Brumleys said this glad to turn around.

This morning's flood spot vacation for Jim and Ka du Lac, Wis. Mrs. Hensli her husband, who had not tains before, to see the Est



*Downland Reporter Herald 7-15-82*

Torrents of water push through downtown Estes Park Thursday, leaving cars and other debris behind. One house also was reported moved

Photo by BLAIR GODE

# Witness says break in dam sounded like an airplane crashing

7-15-82 *LOVELAND Reporter Herald*

By SALLY McGRATH  
Staff Writer

It sounded like an airplane crash and looked like a mud slide when a 24-foot earthen dam gave way today in Rocky Mountain National Park, says Stephen Gillette, whom a quirk of fate placed at the scene.

"I hear this noise sounding like a plane crashing," said Gillette, who first reported the failure of Lawn Lake Dam. "But when I drove up the road and saw the water, I knew it wasn't an airplane."

Dirt was blowing, trees were snapping and the area resembled a mud slide, he said. "You've seen those movies where there's a log jam and they blow it. That's what it looked like," Gillette said.

"I quickly put it in reverse and notified the park dispatcher," he said. "Two minutes later a ranger was there."

Had Gillette not left for work today an hour early, the wall of water could have reached Aspenglen Campground, causing loss of lives, before anyone knew about it.

"I just happened to get there early, I guess fortunately," he said.

Gillette, who operates A-1 Trash Service in Estes Park and contracts hauling services with the National Park Service, left for work at 5:30. "I had two broken trucks and had to go to work early to get one route done so I could do another," he said.

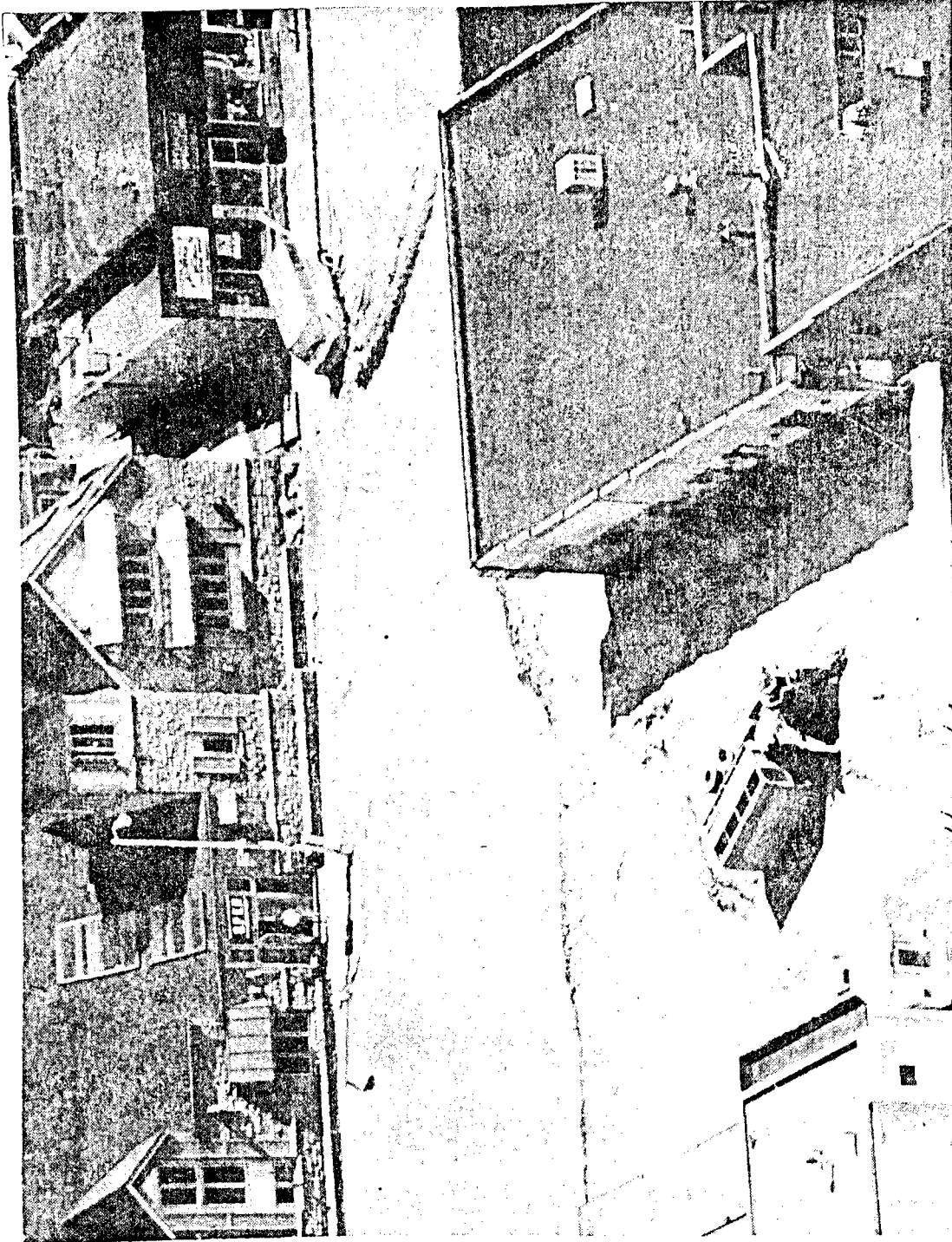
Six hours after leaving his Estes Park house, Gillette said, "I can't explain how I feel; it just petrifies me. I'm still a little

hyped, just sort of nervous."

Gillette said the view of Horseshoe Park from Rainbow Curve resembled a mudslide. "The whole park looked like a lake instead of a meandering stream," he said.

After helping barricade U.S. 34 inside the north park entrance, Gillette said he returned to work. "I just went back and finished my route," said the 30-year-old trash hauler. "But I think the work has just started in Estes Park."





*Loveland Reporter Herald 7-15-80*

A tour bus, unoccupied at the time, and a van were hit by water on Elkhorn Avenue, the main street of Estes Park.

# State inspector says safety check of dam was 'more than year overdue'

7-15-83  
By JIM TOWLE, Herald  
Denver Bureau

DENVER — A safety examination of the earthen rock dam at Lawn Lake was more than a year overdue at the time it collapsed Thursday because inspectors were too involved in a federal program to have a chance to study some of Colorado's lesser dams, the state's chief inspector said this morning.

Rated as a "moderate hazard dam," the Lawn Lake structure was last inspected on Aug. 8, 1978. That inspection was done when the lake was almost completely drained. In his report, the inspector concluded that the dam ought to be re-inspected.

"This dam should be observed when it is full. Looking at the material out of which the

dam is built, it is quite likely that the dam experienced heavy seepage through the embankment and through the abutments. Since the reservoir is so low, this could not be detected," according to the one-page report.

The report criticized the downstream slope of the dam as being "probably too steep."

Gov. Richard Lamm's press secretary, Sue O'Brien, said this morning, "There was some leakage which is not uncommon with earthen dams. They felt the crest of the dam was too narrow, but it has never been a dam that they viewed with any particular concern."

Lamm is in Washington, D.C. Lt. Gov. Nancy Dick viewed the flood scene by helicopter this morning.

Alan Simpson, assistant state engineer, said, "All high hazard dams are inspected annually, however, moderate hazard dams are inspected about every two to three years."

According to that timetable, the Lawn Lake Dam was due for inspection in 1980 or 1981. However, Simpson said, "Between 1977 and September 1981, we were deeply involved in the determination and inspection of high hazard dams with the Corps of Engineers. This project was started at the request of President Jimmy Carter because of the failure of a dam in Georgia."

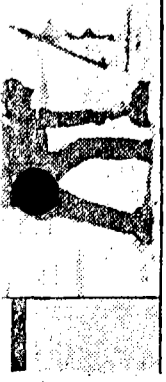
This, according to Simpson, threw the timetable off for inspection of other dams. Moderate hazard dams are inspected as resources

become available, he said.

A "moderate hazard" dam is defined by the state as, "Any dam which fails in the dry that would cause extensive property damage but no expected loss of life." The term "in the dry" means a rainstorm or other excess flooding would not be involved.

Simpson said four of the state's seven inspectors taken by helicopter into the Lake Lawn Dam site this morning.

He estimated that between 500 and 800 acre-feet of water were released in the collapse. "How rapidly the failure took place, we don't know, but indications are that it came quickly," he said.



# The Estes Flood

# Lawn Lake Dam Has 'Medium Risk' Priority

## DAM From 1-A

who wrote the state engineer that recent floods had "reawakened the fears" about whether the dam "is entirely safe."

That led to the first state inspection recorded in state records. Some problems were detected. But the dam was not viewed as a hazard.

Henry Schmidt, superintendent for the owner of the dam, Loveland-based Farmers Irrigating Co., said Thursday he checked the dam's spillway last week to ensure it was clear of debris when the reservoir began filling with water. Schmidt said he detected nothing wrong, and Thursday's rupture caught him by surprise.

"I inspect the dam periodically through the summer season and make necessary maintenance on it whenever it's needed," he said. When asked when the last major repair work was performed, Schmidt replied: "I don't have any recollection of major repair."

The 500-foot-long earthen dam was built in 1903 at the 11,000-foot level on the Roaring River just southwest of Mummy Mountain. The dam's crest, or width on the top, was a narrower-than-normal 10 feet, and the slopes were steeper than average.

The reservoir was designed to hold 817 acre-feet of water, which is used for agricultural irrigation on land owned downstream from Loveland by 15 to 20 farmers. An acre-foot of water is the volume of water that would cover 1 acre to a depth of 1 foot.

A 1979 state engineers' analysis predicted that in the event of a dam rupture, only about 60 percent of the water in its reservoir would escape because of a smaller, natural lake where the dam was built.

Ray Amen, vice president of Farmers Irrigating Co., said Thursday the reservoir was only about half-filled, and water storage had begun only July 8.

"The dam is supposed to be inspected by the state," Amen said. "They inspect these lakes, and then when there's something that don't pass inspection, they let us know and we gotta fix it."

Amen said his company was not required to make any repairs after the last state inspection and "we were never warned that the lake should have been — something should have been done to it."

Amen said, however, that he does not know when the last repair work was performed. "We turn this over to a superintendent," he said, "and I just don't pay any attention to it."

The state engineering analysis predicted it would take water rushing through a breach in the dam only one hour to flood — a prediction the state's engineer said Thursday apparently proved prophetic.

Reports of the only four inspections of Lawn Lake dam that are contained in files at the state engineer's office show inspectors detected these persistent problems:

✓ Aug. 18, 1951: Clark E. Schurr, special deputy state engineer, said the "dam is safe" after an inspection at a time when heavy-

**'Our conclusions were such that the dam wasn't in great shape. But it wasn't in such bad shape as to be unsafe.'**

State Engineer Hal Simpson

er-than-usual winter snows had caused exceptional runoff. "I see no reason for anyone to be disturbed over the probability of it going out," he reported. "If it held safely this year, and it did, when the runoff was greater than ever before, it is safe to assume that it will also hold safely during any future years, provided that the owner is required to clean out all debris from around the spillway each fall and the necessary repairs are made from time to time."

✓ Aug. 28, 1951: State Engineer M.C. Hinderlider recommended the owner make several improvements and perform several maintenance chores. Among them: clearing debris in the spillway because the blockage caused water to rise too high and threatened the safety of the dam. Hinderlider said the state would limit the lake's storage capacity until the improvements were made. And he warned: "Under a Supreme Court decision ... you, as owners of this reservoir, are liable for loss of life and property resulting from the failure of this dam ..."

✓ Nov. 11, 1975: In the first inspection in more than 24 years, according to state records, dam in-

spectors John Schurer and Jim Clark found part of the dam covered by several feet of drifted snow and impossible to inspect. But they did note wind erosion on the dam's crest. "This structure should be thoroughly inspected by this office as soon as the snow is completely clear," they reported. "Special attention should be given to the riveted steel outlet which was placed in 1903. A quick check for spillway adequacy should also be made."

✓ Aug. 25, 1977: Schurer and another inspector again visited the reservoir and said they found the dam in fair condition. They also recommended that Farmers Irrigating officials conduct their own periodic checks for the next three years and build up the crest of the dam "if it is not now stable." And they suggested the owners "monitor leakage."

✓ Aug. 8, 1978: Inspector Louis DeGrave found the dam still in fair condition, with some erosion on both the upstream slope and in the spillway channel. He also reported several large rocks showing on the dam's downstream slope and in the spillway channel. DeGrave noted that his inspection was at a time

when the reservoir was "almost dry," and he recommended another look when the lake was full. "Looking at the material out of which the dam is built," he said, "it is quite likely that the dam experienced heavy seepage through the embankment and through the abutments. Since the reservoir is so low, this could not be detected."

✓ March 15, 1979: In a memorandum analyzing the potential hazard of a Lawn Lake dam rupture, DeGrave estimated it would take only one hour for the reservoir to flood after a break in the dam. Simpson said such analyses are prepared with a worst-case scenario, and a one-hour prediction is not unusual for Colorado dams. Some analyses predict flooding within 30 minutes, he said.

Simpson said the 1979 analysis was prepared to determine a hazard rating for the dam in connection with a national dam-safety program. The analysis was intended to compute the peak flow of water from the reservoir in case of dam rupture, assuming the reservoir was full at the spillway level at the time.

The one-hour flooding is based on an assumption that a leak is large enough and water pouring through the breach is of enough velocity to completely erode the dam, Simpson said.

The 140-foot-long earthen dam on Crystal Lake, just upstream from Lawn Lake, has been inspected three times since 1971, most recently in July 1976. Those inspections have noted a variety of problems, including erosion, poor

riprap to none at all, and obstruction of the spillway by trees. Although the dam has been rated only fair, the potential safety hazard has been considered low.

The larger, concrete and earthen Olympus Dam on Lake Estes, downstream from Lawn Lake, has been inspected twice since 1976, most recently in September 1978. Inspectors said the dam was in good condition, though they noted it was in need of maintenance because of such problems as superficial cracking along the parapet wall and sparse riprapping near the dam's crest.

Dams on three water storage reservoirs — Sandbeach, Bluebird and Pear — owned by the city of Longmont and which are located to the west of the Roaring River basin in Rocky Mountain National Park — have been criticized as potentially unsafe if filled to maximum capacity.

In a 1974 consultant's report, both the concrete dam on Bluebird Lake and the rock and earthen dam on Pear Lake were said to be unsatisfactory for maximum storage because of erosion and leakage. The same consultants found Sandbeach Dam to be in fair to good condition.

Lee Lawson, Longmont's water and sewer commissioner, said Thursday no repairs have been made to any of the dams, despite the consultant's recommendations, because the U.S. Forest Service has been considering buying the lakes.

# Northglenn water plan stymied by injunction

*By Sharon Stewart*  
By SHARON STEWART 7-20-82  
News Staff

Greeley Water Court Judge Robert Behrman issued a permanent injunction on Monday, stopping Northglenn from diverting water from Standley Lake in Westminster to the city's sewage treatment plant in Weld County.

Consolidated Ditches — a group of irrigation companies drawing water from the South Platte River — asked for the injunction to thwart Northglenn's attempt to get Behrman to overrule the state Division of Natural Resources' recent order halting the diversion.

Northglenn officials had hoped Monday's hearing would resolve a six-year legal battle to build their own water and sewer systems.

But the request for a temporary injunction against the state's order opened the door to Consolidated and other users of the South Platte who oppose Northglenn's plans to store water at the Bull Reservoir in Weld County.

Behrman ruled that Northglenn must stick to its agreement with Consolidated to divert the city's municipal sewage to the Metropolitan Denver Sewage Disposal District until Dec. 31.

Northglenn made the agreement with Consoli-

dated as an interim operating condition pending the completion of the city's \$80 million water and sewer system, and subsequent severance from the Thornton utility system.

Jerry Danielson, state engineer with the Division of Natural Resources, said Monday that he ordered Northglenn on July 2 to stop diverting water because water users along the South Platte were being injured.

The water and sewer system was built on the concept that Northglenn would borrow water in Standley Lake belonging to members of the Farmers Reservoir Irrigation Co., for municipal use, treat and store it at the newly constructed Bull Reservoir and finally return it to farmers for irrigation use.

But since 1976, when residents passed a \$31 million bond to build the system, Northglenn officials have been in a quandary because of cost overruns, battles with numerous South Platte water users who have senior water rights and delays in getting water courts to approve the innovative exchange idea.

Behrman said a hearing on portions of the exchange agreement with FRICO will be held Aug. 12.

7-20-82 The Denver Post

# Suburbs to Cooperate on Water

By **GEORGE LANE**  
Denver Post Staff Writer

Denver's suburban neighbors Tuesday took an initial step toward the first cooperative water development effort in the history of the metropolitan area.

The Denver Water Board had set Tuesday as the deadline for suburban water providers to commit to paying for at least 60 percent of the total cost of an environmental impact study on future projects to provide water to the metropolitan area.

A deadline of Sept. 7 has been set for the suburban water providers to agree to pay for another 20 percent of the study.

By 5 p.m., Water Board spokesman Ed Ruetz said, suburban water providers had delivered signed commitments to the Water Board agreeing to pay for 92.37

percent of the 80 percent total.

Several other providers have said they also will pick up a share of the study cost, but their commitments haven't been completed, he said.

Commitment to pay a percentage of the environmental impact study cost guarantees a water provider an opportunity to participate in the projects, paying part of the construction cost and receiving part of the water.

The Metropolitan Water Development Agreement came about because Denver holds the majority of the water rights that will be needed to serve the metropolitan area in the future, but the majority of the need is in the suburbs.

The Denver Water Board, which serves Denver as well as suburban residents, always has paid the total cost of developing water rights belonging to the

city and then charged suburban customers higher rates than city residents pay.

The Metropolitan Water Development Agreement, which is an outgrowth of the Governor's Water Roundtable, basically calls for the environmental study to be made on all of the water projects slated for the metropolitan area, with Denver paying for only 20 percent of the study.

The Water Board spokesman said the study will be put out to bid and the exact cost isn't known at this time, but it is expected to be between \$2 million and \$3 million.

Ruetz said the study will get under way soon, but had the suburban providers not agreed to paying at least 60 percent of the cost by Tuesday, it couldn't have gone forward.

"We certainly made the 60 percent," he said.

He said Jefferson County water providers have, in effect, reserved the large amount of water that will come from future projects by agreeing to pay 41 percent of study cost allocated to the suburbs.

He added that Arapahoe County providers have committed to 23 percent the cost, Douglas County 18 percent at Adams County 10 percent.

He said the board hadn't heard from Boulder County by the close of business Tuesday, but Broomfield, which is Boulder County, has indicated it will participate.

As a result of the agreement, Denver residents, who have paid for the city water rights over the years, will receive some type of rebate — perhaps in the form of reduced water rates if the city suburban agreement works out.

# Northglenn Set Back in Water Row

*The Denver Post*

By SUE LEWIS

Special to The Denver Post

7-20-82

Greeley Water Court Judge Robert Behrman Tuesday denied Northglenn's request for a stay of execution of his injunction prohibiting the city's use of Standley Lake water.

Northglenn plans to appeal the decision, Northglenn City Manager David Hawker said. In the meantime, officials are reviewing alternatives for supplying the city with water.

Behrman issued the injunction against the city Monday after the state Division of Natural Resources ordered Northglenn to stop diverting water from Standley Lake on July 2.

Behrman ruled that Northglenn must honor an agreement with Consolidated Ditches which calls for the city to divert its municipal sewage to the Metropolitan Denver Sewage District until December 31.

"If it is proved impossible to completely live up to the (Consolidated) agreement, there will be another hearing," Behrman said.

Northglenn began piping its sewage to the city's new \$82 million sewerage-treatment plant July 1, canceling a contract with Thornton for diversion to Metro Sewage. Thornton's Utilities Director Lloyd Gromming said the city had not been contacted by Northglenn regarding a resumption of the contract.

Hawker said Northglenn has a week to 10 days' supply of water in a terminal reservoir. He said the city has no plans to ration water at this time.

"Our intention right now is to keep that sewer plant in operation," Hawker said. "We don't have a choice — Thornton has cut off service to us."

Thornton recently filed a \$68 million suit against Northglenn in a dispute over payment of a \$16.2 million water and sewer debt to Thornton.

Northglenn has been purchasing water from Adolph Coors Co.; however the Water Court injunction prohibits them from drawing that water through Standley Lake, Hawker said.

Hawker said an alternative would be to bring the Coors water through the Highline Canal adjacent to Northglenn's water treatment plant. But the gates on the Highline may not be big enough to handle the volume of water required by Northglenn.

Northglenn has contracted for a maximum of 2,500 acre-feet of water per year from Coors. During the previous year Northglenn used 4,400 acre-feet of water. However, Hawker said, "It is my understanding that Coors has a sufficient supply of water to meet our needs."

A hearing has been scheduled for Aug. 12 on Northglenn's plans for a water exchange agreement with Farmers Reservoir and Irrigation Co.

In a related development, a group of Northglenn residents began circulating petitions Monday calling for a charter amendment requiring the City Council to submit any tax increase of more than two mills to a vote of the people. Rankled by the spiraling costs for the city's water project, members of the Homeowners Protective Enterprise are circulating petitions calling for a special election by Oct. 19 regarding the amendment.

Under the current charter the City Council may impose or increase taxes to cover costs of the utility system.

A council rate-review committee recently recommended that the city levy a property tax of from 25 to 30 mills, increase the sales tax by 0.5 percent and levy a 0.5 percent food tax to replace the monthly capital charges residents are assessed now on their water bills.

**Injunction against Northglenn granted** *July 20, 1982*

# Irrigators win water suit

*Shelby Tribune*

Some 20 irrigation companies in Weld and Adams counties Monday won a legal face-off with Northglenn's sewage treatment plans as Greeley-based Division 1 water Judge Robert Behrman issued a permanent injunction against Northglenn.

However, Northglenn City Manager David Hawker later said that city, following a Northglenn council session Monday night, today would formally ask Behrman to reconsider, and stay the execution of his injunctive order.

Behrman's ruling, on a motion for an injunction brought by the irrigators, formed as The Consolidated Ditch Co. of Water District No. 2, halts Northglenn water diversions from Standley Lake in Jefferson County.

It requires affected water rights to be returned to the South Platte River through the Denver Metro Sewage

District No. 1 plant north of Denver, or requires Northglenn to find an alternate water source.

A court spokesman said a written order from Behrman, detailing aspects of the injunction, likely was to be issued late today.

Hawker and Boulder water lawyer Jay Cope, who represents Northglenn, said Northglenn wishes to pursue use of water rights from the Coors Co. Hawker said one problem with the injunctive ruling was it would block an option of storing and drawing on leased Coors water from Standley Lake.

"We're surely not, in the long run, going to tolerate other cities like Thornton and Westminster using Standley water, while we're not able to," Hawker said.

Northglenn had faced several cease-desist orders from the state engineer's system regarding the use

of Standley water and the effect on senior water rights holders downstream along the South Platte.

However, those orders were withdrawn following Behrman's ruling on the injunctive action brought by the consolidated irrigators, said Jim Clark, Division 1 water engineer.

Clark pointed out a proposed Northglenn streamflow augmentation plan remains before Behrman's water court, and is scheduled for a hearing Aug. 12.

A Northglenn treatment plan involved Standley water diversion through that city's sewage system in Weld County, including the Bull Canal. Northglenn has been involved in legal proceedings for about six years over its sewage treatment system following development of a plan for water use — and return — with the Farmers Reservoir and Irrigation Co.

AUGUST 1982

ENGINEERING TIMES

## *Western States' Water Rights Affirmed by Administration*

A stormy dispute between Western states and the federal government was settled recently when the Administration announced the reversal of a Carter era policy which circumvented state water laws.

The federal government owns nearly half of the land in the Western states and an even greater portion of the region's scarce water supplies flow from federal lands. States reacted vehemently to a 1979 policy ruling made by the Carter Administration that allowed federal agencies to use water on federal lands "irrespective of state law." The policy meant that federal land management agencies did not have to compete against developers, farming and mining interests, and municipalities vying for access to unappropriated water supplies.

Under the new policy, announced by Attorney General William French Smith at a Wyoming speech recently, federal agencies will compete for crucial water resources on an equal basis with all other interests under state water management statutes.

Such a policy was announced earlier this year by Interior Secretary James Watt. The Justice Department ruling will apply to all federal agencies that manage lands and claim water rights in the West.

Smith attacked the 1979 Western water policy, calling it "little more than an assertion that federal agencies could take unappropriated water whenever they wanted to." He said the Reagan Administration's approach was more consistent with "basic principles of federalism."

The water rights issue had been a point of bitter resentment among Western states and a focal point of the so-called "sagebrush rebellion" from which Watt emerged.

"Water is a scarce enough resource in the West without the federal government adding to the want," Smith said. "Surely, the federal government has better things to do than to fight with our state governments over the allocation of water," he added.



8-12-82  
Tribune

## Assessor levies property tax on Teller water rights

**CRIPPLE CREEK (AP)** — The Teller County assessor, in a test case that could spawn a good deal of controversy, is attempting to levy property taxes on water rights owned by a private developer.

Assessor Larry Kallenberger says he imposed the tax under a section of the Colorado Constitution that permits taxation of all property that is not specifically excluded — presumably including water rights obtained for commercial purposes.

If upheld in court, the action would set a precedent that could mean millions of dollars in new revenue for counties all over the state — and much higher tax bills for energy firms and other large industrial users of water such as Adolph Coors Co. in Golden and CF&I Steel Corp. in Pueblo.

The outcome would not affect municipal water districts or bona fide agricultural users, whose water rights are exempt from taxation under Colorado law.

"There are places in the state where the rights to water under a piece of land may exceed the value of the land itself," Kallenberger said.

He added: "It seems hypocritical to, on the

one hand, recognize water as the most precious commodity in a semiarid state and on the other, fail to tax it as we would other speculative investments."

Calling the absence of taxation "a subsidy for non-agricultural development," Kallenberger

called for a law to require the registration of sales of water rights and to authorize taxes on them.

The concept of taxing water rights has been brought up before, but Kallenberger is believed to be the first county assessor in Colorado to put it into practice.

# Perry Park residents decline to vote with pocketbooks

By Gail Anderson  
Staff Writer

Asked to vote with their pocketbooks, Perry Park residents and lot owners declined.

Therefore, a plan to finance road, water and street improvements in Perry Park southwest of Castle Rock is apparently dead.

Deadline for putting money into the four escrow accounts for Perry Park East, Perry Park West (the eastern half), Perry Park West (the western half), and Sageport was Aug. 16.

"It appears there are insufficient payments into the escrow accounts in order for any of the four projects to proceed. It appears that the current Perry Park property owners don't wish to take advantage of Douglas County commissioners' financing of roads and water and sewer in order to make their lots more buildable and more sellable," said Dick Blackwood of Quinn and Co., a bonding counsel who has been working on the proposal since its inception in 1981.

Under the plan, residents of Perry Park would have put money into escrow accounts to finance needed road improvements and water and sewer projects. The county would have made a special assessment of properties benefiting from the road improvements and would have issued revenue bonds for water and sewer projects. The revenue bonds would have been paid back through the escrow account funds.

John P. Orcutt, a builder, Douglas County commissioner and Perry Park resident, advocated the plan as a way to spur Perry Park development, which has been hampered due to the amount of unfinished public improvements in the development. He noted that current financing would not permit the water and sanitation district to make the extensive im-

provements needed.

Although new to Douglas County, the financing method has been used successfully elsewhere in the state, Blackwood said. He said Quinn and Co. worked on getting county financed improvements in Mesa Cortina, above Silverthorn in Summit County, and in the Peak 7 development above Breckenridge. Both projects have spurred development.

Perry Park improvements would have been more likely if there had been \$40,080 for roads and \$121,880 for water and sewer in the escrow account for the western half of Perry Park West, \$74,880 for roads and \$225,910 for water and sewer for Sageport; \$39,528 for roads and \$63,342 for water in Perry Park East; and \$54,015 for roads and \$190,077 for water and sewer in the eastern half of Perry Park West.

Owners of lots would have had to pay a total of \$1,019 into the escrow account for Sageport, assuming all improvements were needed; \$1,270 for Perry Park East; \$988 for the eastern half of Perry Park West; and \$1,088 for each lot in the western half of Perry Park West.

If there had been enough money in the first escrow accounts, a second would have been established to further finance improvements.

Blackwood said he did not have the totals for each escrow account. He added that that information is confidential until the bank with the escrow accounts, Central Bank of Denver, makes a report to the commissioners around Sept. 1.

As a Douglas County resident, Blackwood said, he took on the project because he wanted to perform a service. What he will get back for more than a year of work will be reimbursement for mailing costs associated with getting participation in the accounts. Money for that will

come from some of the escrow money, he said.

## Commissioners' action

The project got off the ground in April 1981 when the financing plan for Perry Park was submitted and approved by the county commissioners. It then took a year before Perry Park Water and Sanitation agreed to waive tap fees for those who participated and paid into the project. That waiver was crucial for the success of the plan because of the difficulty of persuading people to contribute to the escrow accounts if they also would have to pay around \$5,000 to the water and sanitation districts for water and sewer taps, Blackwood said.

After Perry Park Water and Sanitation's approval, the escrow accounts were established and people were "given the opportunity to vote with their pocketbooks, which they declined to do," Blackwood said.

Blackwood said he is still open to working on similar financing schemes elsewhere in the county, but he doesn't think he will attempt to do Perry Park again. He has already signed a "gentleman's agreement" with a group of Meribel property owners to form a metropolitan district for water and to finance Meribel roads through a county improvement district. A hearing on the Meribel service plan has been set for Aug. 30 at 3 p.m. before the county commissioners.

He added that he has been asked to help with other such districts in the county, but cannot discuss those plans now.

Jack Myers, manager of Perry Park

Water and Sanitation, said he was disappointed to learn not enough people were interested in paying for water, sewer and road improvements.

## Expansion plans

But, he said, the district will attempt to extend utility lines in areas likely to benefit the greatest number of people as finances become available.

Talk of the special district did not keep Perry Park Water and Sanitation from pursuing its own expansion plans, noted Neal Wiler, president of the district board. He said the district is extending sewer lines about three-quarters of a mile on Perry Park Boulevard and spent \$100,000 in finishing expansion of the sewer treatment plant.

Asked for a reaction to the failure of the financing scheme, Wiler replied: "First of all, I'm disappointed at the very pointed and strong urging of a group of Perry Park residents and lot owners that we proceed along this path. We spent several thousands of dollars (in legal fees) because of their interest. I'm disappointed that they appear to have been in the minority. In effect, several thousands of dollars were spent for nothing."

"The next time we have a group of residents and lot owners who come to us all enthusiastic about a project, I think we'll look even longer and harder."

He added that the present state of the economy may have something to do with the failure of the plan. However, Wiler added, Blackwood told him the Summit County districts were formed in similar economic circumstances.

# Another Northglenn

## water rights suit begins

By MIKE PETERS  
Tribune Staff Writer

*Shelley Tribune*

Seventeen attorneys representing dozens of cities, water districts and private companies crowded into Weld District Judge Robert A. Behrman's courtroom Monday to debate another chapter of Northglenn's long-running dispute over rights to water from the South Platte River.

Northglenn has been involved in several legal cases in the past six years, and more are scheduled in the months to come, involving water rights for the suburban Denver community and effects on senior water rights' holders downstream along the South Platte River.

Monday's court action was the start of a two-week trial concerning Northglenn's plan of augmentation — the replacement of water used by the city. However, because agreement was recently reached between Northglenn and several of the other litigants, the trial is expected to be finished this week.

Court records show Northglenn has six wells and one surface diversion which the city has been using for its water supply. The city is seeking to use historic irrigation water from five Northglenn-owned ditches to augment water to the South Platte River. The other litigants in the case — there were 28 of them before the Monday trial started — are challenging Northglenn's rights to use the South Platte River irrigation water, claiming it will cause damage to other water rights.

Boulder Attorney Jay Cope, who represents Northglenn in the case, surprised some of the litigants Monday when he asked Behrman to lift an injunction the judge issued against the city July 19. The injunction halted Northglenn water diversions from Standley Lake in Jefferson County.

According to Behrman's order, Northglenn had permission to use water from Standley Lake, if the city's return water flows went through the Denver Metro Sewage Plant north of Denver. However, when Northglenn ceased the return of the affluent through the Denver plant, more than 20 irrigation companies filed for an injunction against the city.

In a late afternoon session in Behrman's chambers, the litigants were told evidence could be taken on the injunction, following the trial — probably Thursday morning. Behrman will rule

then concerning the injunction, which is due to expire December 31.

Northglenn was to use the Denver sewage plant until the city's was completed in Weld County.

In the Monday case, Northglenn stated in its application: "Applicant is engaged in a multimillion dollar project to provide the City of Northglenn with its own water and wastewater utility systems. Since its incorporation in 1969, Northglenn has received utility services from the neighboring cities of Thornton and, to a lesser degree, Westminster."

Under a new plan, the Northglenn application states, the city will begin operation of its own system and Thornton will stop supplying water and providing wastewater treatment to the city.

"No injury will result to the owners or persons entitled to use water under vested water rights or decreed conditional water rights as a result of this discontinuation of service by Thornton ..." because Thornton will reduce its demand on the South Platte River system.

The Northglenn application explains that a 1976 agreement between the city and the Farmers Reservoir and Irrigation Company allowed

Northglenn to make use of 7,785 acre feet of water per year. That water, owned by FRICO, is stored in Standley Lake.

Northglenn agreed to provide FRICO with 110 percent of the water the city removes from Standley Lake, and Northglenn has proposed to take the water supplied by various sources, including from municipal wastewater, Clear Creek, groundwater tributary to the South Platte River, municipal irrigation return flows and urban runoff tributary to the South Platte River, and groundwater from the non-tributary Arapahoe and Laramie-Fox Hills Aquifers.

It is that plan of augmentation which brought about the present district court trial. While some of the litigants reached agreements with Northglenn late last week, several are still challenging the city's right to use the augmentation plan.

The remaining principal litigants in this trial against Northglenn are the Joseph Coors Co. and the City of Thornton.

Another two-week Northglenn trial — concerning FRICO, Standley Lake and the water rights in Clear Creek — is scheduled in October.

# Northglenn may use water from Standley

*Sheelby Tribune*  
By MIKE PETERS 9-18-82  
Tribune Staff Writer

The City of Northglenn was given conditional permission this week to draw much-needed water from the Standley Lake Reservoir and the South Platte River in two water court decisions handed down by Weld Judge Robert A. Behrman.

In a four-day hearing before Behrman in Water Court this week, Northglenn asked for two decisions:

- Dismissal of an earlier injunction against the city that prohibited it from taking water from Standley Lake.
- Allow Northglenn's plan of augmentation to become effective, allowing the city to replace water drawn on the South Platte River with water from Northglenn-owned agricultural ditches.

Both plans could effect agricultural water in Weld County.

Behrman conditionally lifted the injunction after all the cities and groups who originally signed the injunction petition agreed that if Northglenn followed the

present conditions of the water use, the injunction could be modified.

The decision allows Northglenn to remove residential water it already purchased from the Joseph Coors Co. and the City of Thornton on the condition that it won't effect another water case now pending before the Water Quality Control Commission.

Attorneys from the City of Thornton objected to the decision, stating the city might be damaged by the withdrawing of water from the reservoir by Northglenn. But Behrman ruled that since Thornton didn't sign the original injunction petition, they wouldn't be able to stop his modification of the injunction. However, Behrman said if the City of Thornton is damaged, it would be entitled to Northglenn-owned water from Standley Lake.

"The modification of the injunction doesn't give Northglenn permission to use their Standley Lake agricultural water for residential use," Behrman added. He explained that Northglenn owns

"quite a bit" of agricultural water in the lake, and the decision whether that water can be used for residential purposes will be determined in a case next month.

Concerning the plan of augmentation, Behrman approved Northglenn's plan on condition that other water users along the South Platte River are also protected.

Northglenn asked to take water from six South Platte wells and a surface diversion to increase the city's water supply. The plan of augmentation requested the city be allowed to replace that water with water from several South Platte agricultural ditches owned by Northglenn. Some of those ditches are located in southern Weld County.

The judge gave the litigants in the case six weeks to propose terms and conditions to protect their interest in the South Platte River water.

Behrman said the case could result in another court hearing to present arguments about the protection of South Platte River water interests.

# Colorado today

*Sheep Tribune*  
10/6/82

## Estes property owners sue

ESTES PARK (AP) — Five property owners here have sued the city, the state Department of Natural Resources and the owner of a dam that collapsed last July and flooded this mountain resort town.

The lawsuit, which seeks \$391,000 in damages, charges that the Lawn Lake Dam burst because its owner — Farmers Irrigation, Ditch and Reservoir Co. — was negligent in maintaining and inspecting the dam in Rocky Mountain National Park.

The suit also charges that the city and state failed to inspect either Lawn Lake Dam or Cascade Lake Dam, which burst downstream. The action says both parties ignored an expert's warning that the two dams be considered "high hazard" structures.

Seeking damages are Cortlin and Phyllis Hauge; Richard and Jackie Hicks; Arthur and Benita Ackerman; Larry Riggs and Alan and Mary Jager.

# LSP Takes New Look At Lawsuit

By JOHN LA PORTE 10/6/83  
 Fort Morgan Times Staff Writer

Amid suggestions that a lawsuit against Riverside irrigation and reservoir companies and District One river Commissioner Robert Samples might have been too hastily filed with too little information, directors of the Lower South Platte Water Conservancy District referred the matter to their executive committee for further study. The committee is to report back to the board at a November meeting.

The discussion of the suit livened up a Tuesday board meeting in Sterling that also included approval of the 1983 budget with only about a \$5,000 increase over 1982; a report on a study of possible hydroelectric power at the Narrows Reservoir now in preconstruction studies; discussion of proposed Trans-County Water, Inc. projects, and a report from River Commissioner Elton Watson.

Steve Treadway, one of Morgan County's representatives on the board, said, "I don't think the board was properly informed when we entered this case."

The board voted by telephone to file the suit, then confirmed the vote at a district meeting after the filing. He and Maurice Lefever had voted against the suit with another Morgan

County director, Ben Weitzel, absent and two others, Vic Ostermiller and Millard Huey, in favor. Treadway also expressed dissatisfaction with the performance of the district's legal counsel, Kirk Holleyman, and board President Don Hamil said that matter could be taken up by the executive committee.

"I think the board should run the lower South Platte River, not Kirk Holleyman or Gary (Friedhauf), secretary-manager of the district," Treadway said.

Treadway also said Friedhauf had indicated the Central Water Conservancy District would go along with the position of the Lower South Platte and two other plaintiffs, which seek to halt Riverside drawing water out of priority and to make Samples keep records on water diversions.

Central sent a letter asking the Lower South Platte District to help quell rumors that it was in on the suit, pointing out it was not a participant and that it supported the concept of river management by upstream use and reuse as long as it did not damage senior rights.

"I won't deny that the impression (of potential Central involvement) may have been overemphasized (at the time of the Lower South Platte telephone

loss of water as a result of the suit, irrigators in the lower reaches claim they have been losing water for years due to too much drawing out of priority without compensation.

No one, Friedhauf claimed, questions drawing on a free river, but it is the out-of-priority drawing injuring senior rights that is the bone of contention.

Some have said that the suit is an attempt to protect the Narrows decree, and Friedhauf acknowledged that part of the idea was to try to get Riverside to negotiate on a recent court case in which Riverside applied for transfer of decree rights to Wildcat Reservoir with old existing decree dates.

However, the Lower South Platte District filed opposition to such extended use of the decrees, though not objecting to Wildcat itself. That case is awaiting final filing of briefs and a judge's decision.

In the matter of the budget, availability of the proposed budget for public review and a public hearing Tuesday drew no public comment.

Thus, a budget of \$129,220.19, up about \$5,000 or three percent from last year and with .5 of a mill tax levy, was approved in rapid fashion.

The budget breakdown is as follows: Unencumbered carry-over: \$4,750 and deferred capital investment, \$10,000.

Projected income: Certified Ad-valorem Revenues, \$104,602.03, Other Tax Revenues, \$8,368.16, Interest, \$1,500, Auto Salvage, \$1,000, Provisions for Uncollectibles, \$1,000, for total budgeted income, \$114,470.19 and total budgeted revenues, \$129,220.19.

Expenditures: Interest, \$500. Directors fees and expenses, \$3,000. Salaries and related expenses,

\$41,677.02, social security, \$2,617.02 and salaries, \$39,060.

Bonds and insurance, total \$8,638.80. Bonds, \$345, state workman's comp., \$250, health insurance program, \$4,872, retirement program, \$1,171.80, auto insurance, \$800 and office insurance, \$1,400.

Office expenses, total \$14,100. Rent \$1,800, utilities, \$2,500, supplies, \$1,500 prep. of minutes, \$1,200, audit, \$800 office and equip. maint., \$800, new equipment, \$1,500 and mileage and expenses, \$4,000.

Promotional, total \$9,500 Organizational dues, \$1,500, convention expenses, \$2,000, congressional work \$3,000, hospitality, \$1,000 and stat legislative work, \$2,000.

(Continued on Page 3)

# LSP Looks Again At Lawsuit

(Continued from Page 1)

Legal fees and expenses, total \$24,000. Fees, \$20,000 and expenses, \$4,000.

Capital expenditures, \$20,000.  
Contingency, \$7,804.37.  
Total expenditures, \$129,220.19.

The board also approved bills for the month totaling \$20,323.52 including a \$10,000 transfer from checking to savings and a \$500 payment toward a \$2,000 total for the year for a lobbyist at the State Legislature.

A proposal from an engineering firm, Gibbs and Hill with Denver offices, concerning hydroelectric power for Narrows was outlined briefly but not acted on pending other proposals and comparisons.

The firm offered to do preliminary data at no cost to the district and feasibility study work at a maximum of \$2,500.

The district has an agreement with the government for a study of such power with progress reports required every six months.

The Trans-County proposal is for water from several sources, possibly including Narrows if it is built, for an area south of the river in Phillips, Yuma and Washington Counties. Though the board does not believe Narrows water should leave the basin and questions the feasibility of the Trans-County concept, the district will not oppose a diligence decree allowing the group to keep its current conditional decrees for four more years as studies are done.

River Commissioner Watson reported 11,598 acre-feet of water through the Julesburg station in September with reservoirs beginning to fill and levels reported as follows: North Sterling 23,480 acre-feet, Prewitt 19,010 and Julesburg 15,087.



### Locals Listen

Morgan County directors Vic Ostermiller, left foreground, and Steve Treadway, right foreground, listen to proceedings at the Tuesday meeting of the Lower South Platte Water Conservancy District. Treadway blasted lack of information and hasty action on the part of the board in voting to file a lawsuit against Riverside irrigation and reservoir companies and River Commissioner Robert Samples concerning water diversions out of priority and record-keeping. Treadway had voted against filing the suit.

(Times Photo By John La Porte)

## CONCERN TO ALL IRRIGATORS

# GASP Monitors LSP Suit

Ground Water Appropriators of the South Platte directors are in what manager Jack Odor termed "a monitoring situation" on a lawsuit the Lower South Platte Water Conservancy District and two irrigation groups have filed.

The suit names Riverside irrigation and reservoir companies and Robert Samples, District One water commissioner, as defendants and seeks record-keeping on water diversions out of priority, along with closer adherence to priorities.

The suit is a source of concern to all irrigators, it was noted at a Tuesday GASP meeting, because no one can make plans for a course of action on augmentation plans if the plaintiffs are successful.

A proposal from Colorado State

University to document a river computer model based on 10 years of flows and diversions called for a \$25,000 price tag.

Advice from the state engineer's office, however, pointed to the possibility of a \$7,500 project being sufficient for GASP's purposes.

The group received acceptance of its 1982 operating plan from the state engineer's office. Monthly reporting on recharges was requested, and that is being done, Odor said. Other than that, the state engineer's office appeared pleased with GASP's work.

A formal request was filed with the

Northern Colorado Water Conservancy District asking for 20,000 acre-feet from the Hardin project if it is ever built. Northern, Central and Lower South Platte filed for a decree on that project, sometimes touted as an alternative to Narrows near Fort Morgan. Narrows is, however, in preconstruction study phases and has government funding for those studies.

Odor also noted some water leased from Pioneer Water and Irrigation District, and pursuit of three other possibilities for purchase of water from unnamed sources.

*Seal failure cited in Lawn Lake break* *October 26, 1982.*

## Seal failure cited in Lawn Lake break

DENVER (AP) — Failure of seals in underground plumbing may have caused the Lawn Lake Dam to burst, triggering a flood that caused \$31 million in damage to the Estes Park area and claimed at least three lives, an inspector said.

Ronald Hermance, a National Park Service hydrologist and member of the team that inspected the earthen dam after the flood, said Monday an inspection prior to the dam's collapse probably would not have revealed the potential danger.

Six lawsuits seeking more than \$4 million in damages by victims of the flood contend that state officials failed to adequately inspect the dam and monitor its water level.

When the dam, located 10 miles northwest of the resort town in Rocky Mountain National Park, broke on July 15, it sent a torrent of muddy water down Roaring Valley and through the main street of town.

The inspector's analysis, released Monday, said that when the dam was built in 1908, intake and outlet pipes were joined with hot poured lead to an underground valve buried deep within the earthen dam.

He said that during the 80 years since construction,

the seals slowly corroded and finally gave way on July 15 when the dam broke.

"It's not unlike the physical process of aging in humans. We don't all corrode in one dramatic moment," noted Park Service spokesman James Harpster.

Hermance said the actual breach in the dam occurred within minutes.

"If the seals broke and the valve pushed forward ever so slightly — and just a fraction of an inch would be enough — water would go over and around the valve and quickly erode the downslope of the dam," Hermance said.

Hermance based his conclusions on evidence found near the dam. The intake pipe was in good condition but the valve and a portion of lead seal were found about 50 feet downstream. Sections of the outlet pipe were located several hundred yards from the dam, indicating it was swept away first, he said.

However, he did not rule out other possible causes of the dam break, including animal burrowing and construction shortcomings.

But the corroded-seal theory, he said, "is my best guess."



# An Act

SENATE BILL NO. 87.

BY SENATORS Anderson, Allshouse, Beatty, Beno, Bishop, Clark, Hatcher, Kadleck, Meiklejohn, Noble, Phelps, P. Powers, D. Sandoval, Schaefer, Soash, Strickland, Yost, and Zakhem; also REPRESENTATIVES Younglund, Lillpop, Paulson, Spano, Armstrong, Castro, Chaplin, Chavez, DeHerrera, DeNier, Dyer, Fine, Gillis, Hastings, Herzog, Hudson, Knox, Larson, Lucero, Marks, Martinez, Mielke, Minahan, Neale, Orten, Paulson, Prendergast, Robb, Shoemaker, Skaggs, Spelts, Strahle, Sullivan, Taylor, Tebedo, Webb, Winkler, and Wright.

CONCERNING PROJECTS FUNDED BY THE COLORADO WATER CONSERVATION BOARD CONSTRUCTION FUND, AND SPECIFYING DUTIES OF THE COLORADO WATER CONSERVATION BOARD RELATING TO SUCH PROJECTS.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Article 60 of title 37, Colorado Revised Statutes 1973, as amended, is amended BY THE ADDITION OF A NEW SECTION to read:

37-60-121.1. Reserved rights litigation fund. (1) The general assembly hereby recognizes that the claims of various agencies and organizations of the federal government to waters of the state of Colorado represent a claim to waters heretofore claimed by appropriators of the state of Colorado who have relied on the doctrine of prior appropriation to protect their property rights in and to those waters lawfully appropriated or acquired. The general assembly recognizes the need to take all actions necessary to protect such valuable property rights of its citizens, including the establishment of the fund as set forth in this section.

(2) There is hereby established a reserved rights litigation fund in the office of the state treasurer to be

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

utilized by the department of law for resolution of reserved rights claims. Moneys credited to said fund shall be expended by the attorney general only upon authorization by the general assembly and consistent with the provisions of this section. The controller, upon presentation of vouchers properly drawn and signed by the attorney general or an authorized employee of the department of law, shall issue warrants drawn on said fund. All moneys so deposited in the reserved rights litigation fund shall remain in said fund to be used for the purposes set forth in this section and shall not revert to the Colorado water conservation board construction fund, the general fund, or any other fund at the end of the year, except as directed by the general assembly. All interest earned from the investment of moneys in the reserved rights litigation fund shall be credited to and become a part of the Colorado water conservation board construction fund created by section 37-60-121.

SECTION 2. Transfer of moneys. The Colorado water conservation board is hereby directed to transfer a total sum of five million dollars (\$5,000,000) from the Colorado water conservation board construction fund established pursuant to section 37-60-121, Colorado Revised Statutes 1973, to the reserved rights litigation fund created pursuant to section 37-60-121.1, Colorado Revised Statutes 1973.

SECTION 3. Appropriation. In addition to any other appropriation, there is hereby appropriated out of the reserved rights litigation fund to the department of law, for the fiscal year commencing July 1, 1982, the sum of two hundred and fifty thousand dollars (\$250,000). Any moneys unexpended at the end of the fiscal year shall revert to the reserved rights litigation fund.

SECTION 4. Project authorizations. (1) (a) Pursuant to section 37-60-122 (1) (b), Colorado Revised Statutes 1973, the Colorado water conservation board is hereby authorized to construct, or cause to be constructed, the following water resources projects:

Priority	Project Name	Board Cost	Payment	
			Period (yrs.)	Total Payment
1	Rio Grande Reservoir	\$1,134,500	40	\$ 1,200,568
2	Groundhog Reservoir	125,000	40	291,400
3	Beeman Irrigation Company	110,000	40	256,432
4	City of Craig	3,150,000	40	7,343,280
5	Fossil Creek Reservoir	2,057,000	40	4,795,278
6	Town of Erie	<u>1,645,000</u>	30	<u>3,210,218</u>
	Total	\$8,221,500		\$17,097,176

(b) The Colorado water conservation board may expend on each project specified in paragraph (a) of this subsection (1), from such moneys as are or may hereafter become available to the Colorado water conservation board construction fund, the amounts of money listed in said paragraph (a) plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by the engineering cost indices applicable to the types of construction involved for such projects or as may be justified by reason of changes made in the plans and specifications of the project if those changes are required by finalized engineering drawings and specifications or by federal or state requirements. The board's cost toward any project specified in paragraph (a) of this subsection (1), except for the Rio Grande Reservoir project, shall not exceed fifty percentum of the total cost of constructing a project.

(c) Notwithstanding the provisions of section 37-60-121 (1) (b) (IV), Colorado Revised Statutes 1973, six hundred nineteen thousand five hundred dollars (\$619,500) of the board's cost for the Rio Grande Reservoir project shall be nonreimbursable in recognition of the fact that the state shall receive the right from the owner of the reservoir to use a portion of the said reservoir's storage capacity for the purposes of meeting Colorado's obligations under the Rio Grande compact, section 37-66-101, Colorado Revised Statutes 1973, and maximizing the use of compact-allocated waters in Colorado. The board shall not expend any nonreimbursable moneys on the Rio Grande Reservoir project until the state engineer certifies to the board that an operating agreement satisfactory to him for the state's use of the reservoir for compact purposes has been agreed upon. Said operating agreement shall be incorporated in the contract between the board and the project sponsor. The exception set forth herein to section 37-60-121, Colorado Revised Statutes 1973, is necessitated by the terms of the Rio Grande compact as ratified by this general assembly on behalf of the citizens of the state of Colorado. The general assembly recognizes that

as a result of the compact the rehabilitation of precompact reservoirs is the only effective way of fulfilling the mandates of this section with respect to the Rio Grande waters within the state of Colorado.

(d) With respect to the Town of Erie project, the board shall not enter into a contract for the construction of this project until the town obtains a properly adjudicated storage decree for the project and until the town provides such information as the board may require to satisfy the board, in its discretion, that the project is financially viable.

(e) The sponsor of a project specified in paragraph (a) of this subsection (1) may not give notice of an award of a contract nor notice to proceed with the construction of a project nor in any manner incur costs or initiate final designs and specifications for a project or for the construction of a project until such sponsor has entered into a contract with the Colorado water conservation board for the construction of a project and has otherwise complied with all procedures and conditions required by the board. If a sponsor fails to comply with this paragraph (e), the Colorado water conservation board may, at its discretion, terminate all or a portion of the board's financial contribution to a project, notwithstanding the authorization made by paragraphs (a) and (b) of this subsection (1), or the board may require such assurances from the project sponsor as the board deems necessary in order to adequately protect the board's investment in a project.

(2) (a) Contracts entered into by the Colorado water conservation board pursuant to sections 37-60-106 (1) (o) and 37-60-119 (2), Colorado Revised Statutes 1973, for the use of the projects specified in paragraph (a) of subsection (1) of this section shall be subject to the payment periods and total payments set forth therein; except that total payments shall be adjusted to reflect any changes in expenditures made by reason of paragraph (b) of subsection (1) of this section.

(b) The Colorado water conservation board may extend the payment period for any project and defer one or more annual payments, notwithstanding the provisions of paragraph (a) of this subsection (2), if, in the board's opinion, the entity requesting such extension and deferment demonstrates that it has encountered significant and unexpected financial difficulties and that it has been duly diligent in its efforts to comply with the repayment provisions of its contract with the board.

SECTION 5. Project deauthorization. The following projects, authorized in section 2 of chapter 101, Session Laws of Colorado 1978, and in section 5 of chapter 426, Session Laws of Colorado 1981, are hereby deauthorized:

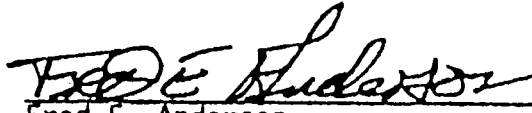
<u>Project</u>	<u>Amount</u>
Denver (for water meters only)	\$5,000,000
Town of Parachute	\$ 200,000

SECTION 6. Section 2 of chapter 435, Session Laws of Colorado 1981, is amended to read:

Section 2. Transfer of moneys. The Colorado water conservation board is hereby directed to transfer a total sum of not more than twenty-nine million nine hundred ninety-nine thousand dollars (\$29,999,000) from the Colorado water conservation board construction fund established pursuant to section 37-60-121, Colorado Revised Statutes 1973, to the authority created pursuant to this act, TOGETHER WITH ANY INTEREST ACCRUED FROM THE INVESTMENT THEREOF FROM JULY 1, 1981, UNTIL DATE OF ACTUAL TRANSFER PURSUANT TO RESOLUTION BY SAID AUTHORITY. Moneys so transferred shall be paid by the authority into a ONE OR MORE debt service reserve fund FUNDS OR, IF NO BONDS ARE ISSUED AND OUTSTANDING, INTO SUCH OTHER FUND OR FUNDS AS THE AUTHORITY MAY DESIGNATE, which shall be established by the authority pursuant to section 37-95-113, Colorado Revised Statutes 1973; EXCEPT THAT SUCH INTEREST MAY BE TRANSFERRED INTO SUCH OTHER FUND AS MAY BE ESTABLISHED AND DESIGNATED BY THE AUTHORITY UNDER SAID SECTION. The Colorado water conservation board is further directed to transfer an additional amount, not to exceed one hundred thousand dollars (\$100,000), from the Colorado water conservation board construction fund to the authority created pursuant to this act, TOGETHER WITH ANY INTEREST ACCRUED FROM THE INVESTMENT THEREOF FROM JULY 1, 1981, UNTIL DATE OF ACTUAL TRANSFER PURSUANT TO RESOLUTION BY SAID AUTHORITY, for such personal services, operating, travel, and capital expenses as the authority may incur. ~~during-the-fiscal-year-beginning-july-1, 1981;-and-ending-june-30;-1982-~~

SECTION 7. Safety clause. The general assembly hereby

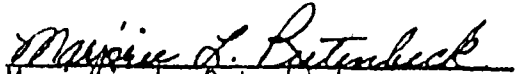
finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.



Fred E. Anderson  
PRESIDENT OF  
THE SENATE



Carl B. Bledsoe  
SPEAKER OF THE HOUSE  
OF REPRESENTATIVES



Marjorie L. Rutenbeck  
SECRETARY OF  
THE SENATE



Lorraine P. Lombardi  
CHIEF CLERK OF THE HOUSE  
OF REPRESENTATIVES

APPROVED April 9, 1982 9:45 AM



Richard D. Lamm  
GOVERNOR OF THE STATE OF COLORADO

# An Act

HOUSE BILL NO. 1065.

BY REPRESENTATIVES Winkler, Fine, Gillis, Hinman, Lucero, Mielke, Minahan, Scherling, Spano, Wright, and Younglund; also SENATORS Yost, Baca Barragan, Beno, Gallagher, Hatcher, P. Powers, and Stewart.

CONCERNING ACQUISITION BY THE DIVISION OF WILDLIFE OF WATER OR WATER RIGHTS FOR USE IN CREATING WETLANDS HABITAT AND A CONSERVATION POOL IN BONNY RESERVOIR IN YUMA COUNTY FOR WILDLIFE PURPOSES, AND MAKING AN APPROPRIATION THEREFOR.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Acquisition authorization. The division of wildlife of the department of natural resources is hereby authorized to acquire water or water rights for the purpose of a conservation pool in Bonny Reservoir and for the purpose of creating wetland habitat in Yuma County. Said water or water rights are to be used for wildlife purposes and to maintain the practice of supplemental irrigation to Hale Ditch users.

SECTION 2. Appropriation. In addition to any other appropriation, there is hereby appropriated, out of any wildlife cash fund moneys deposited in the state treasury not otherwise appropriated, to the division of wildlife, the sum of five hundred eighty-five thousand seven hundred sixty dollars (\$585,760), or so much thereof as may be necessary, to be matched with an appropriation of five hundred eighty-five thousand seven hundred sixty dollars (\$585,760) from the federal land and water conservation fund, for the acquisition authorized by this act. The moneys appropriated shall become available on passage of this act and shall remain available until expended or until July 1, 1986, whichever occurs earlier. After this appropriation no other moneys from the wildlife cash fund shall be appropriated for the purchase of a conservation pool in Bonny Reservoir.

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

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  
Carl B. Bledsoe  
SPEAKER OF THE HOUSE  
OF REPRESENTATIVES

Fred E. Anderson  
Fred E. Anderson  
PRESIDENT OF  
THE SENATE

Lorraine F. Lombardi  
Lorraine F. Lombardi  
CHIEF CLERK OF THE HOUSE  
OF REPRESENTATIVES

Marjorie L. Rutenbeck  
Marjorie L. Rutenbeck  
SECRETARY OF  
THE SENATE

APPROVED May 6, 1982 10.35 AM

Richard D. Lamm  
Richard D. Lamm  
GOVERNOR OF THE STATE OF COLORADO



# An Act

HOUSE BILL NO. 1134.

BY REPRESENTATIVES Younglund, Artist, Erickson, Hinman, Strahle, Wright, Chavez, Hamlin, Hastings, Herzog, Lucero, Mielke, Neale, Paulson, Reeves, Robb, Sullivan, and Traylor; also SENATORS Beatty, Anderson, Beno, Bishop, Phelps, P. Powers, Schaefer, Soash, and Zakhem.

CONCERNING THE COLORADO WATER RESOURCES RESEARCH INSTITUTE.

Be it enacted by the General Assembly of the State of Colorado:


SECTION 1. 23-35-103, Colorado Revised Statutes 1973, as amended, is amended to read:

23-35-103. Repeal. This article shall be repealed, effective July 1, ~~1982~~ 1987.

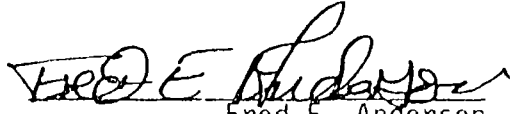
SECTION 2. Safety clause. The general assembly hereby

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

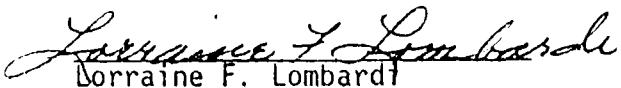
finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.



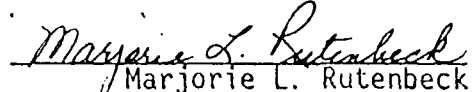
Carl B. Bledsoe  
SPEAKER OF THE HOUSE  
OF REPRESENTATIVES



Fred E. Anderson  
PRESIDENT OF  
THE SENATE

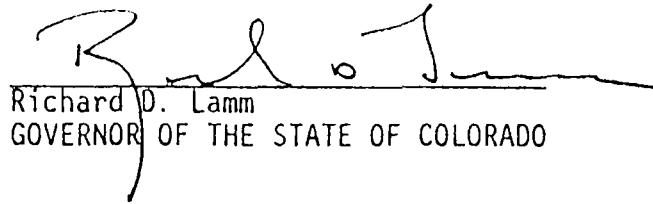


Lorraine F. Lombardi  
CHIEF CLERK OF THE HOUSE  
OF REPRESENTATIVES



Marjorie L. Rutenbeck  
SECRETARY OF  
THE SENATE

APPROVED March 22, 1992 4:15 p.m.



Richard D. Lamm  
GOVERNOR OF THE STATE OF COLORADO