ANNUAL REPORT

WATER DIVISION VII

REPORT PERIOD NOVEMBER 1, 1974 THRU OCTOBER 31, 1975

Submitted To

Mr. C. J. Kuiper

State Engineer

State of Colorado

by

Wayne M. Crosby

Division Engineer

Durango, Colorado

December 8, 1975



C. J. KUIPER State Engineer

DIVISION OF WATER RESOURCES

Mr. C. J. Kuiper State Engineer Colorado Division of Water Resources 1845 Sherman Street Denver, Colorado 80203

Dear Mr. Kuiper:

Attached herewith is our Annual Report for the period

November 1, 1974 through October 31, 1975.

Very truly yours,

Wayne M. Crosby, P.E

Division Engineer

WMC:alf

XC: William R. Smith
M. William Mattern

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^{*} Pages for reservoir storage will be inserted when information available from computer

from computer
** To be added when information available from computer

1975 ANNUAL REPORT DIVISION 7 DURANGO, COLORADO

Water Division 7, comprised of the San Juan River Basin located in Southwestern Colorado, was a Spanish territory for many years and later a part of Mexico. It was added to the United States after the Mexican War. Although the Basin was part of a large area ceded to the Ute Indians, adjustments of Indian land boundaries during the 1870's opened a large part to future settlers. With the arrival of the narrow gauge railroad in the 1880's, mining and the raising of livestock and farming increased.

Of slightly under 5,000,000 acres in the Basin, approximately half are federally controlled forest or woodlands. Land uses are for timber production, watershed, recreation, wildlife and agriculture. Of the 1.6 million acres of non-federal land, more than half is used for livestock grazing. Livestock grazing is also permitted on a large part of the federally controlled lands. The importance of rangeland and grazeable woodland as watersheds, overshadows all other considerations. Food and cover for wildlife is also of great importance.

Soils in the area are highly variable. They include deep, wind-deposited soils in the valleys, shale-derived clays in many valleys and adjoining slopes, and shallow, stony rocky soils over much of the mountain and foothill areas.

The geologic formations, along with the vegatative cover, make the San Juan Basin one of the most scenic areas in Colorado. Rocks ranging in age from one-to-five hundred million years are exposed here. They are crystalline, volcanic, and sedimentary in nature and of various geological ages.

Climate in the San Juan Basin differs with elevation. Variations are found in the mountainous foothill mesa and desert zones. A climatic feature common to all zones is that winter snow accounts for about half of the annual precipitation, averaging about twenty-one inches.

Most of the Basin has an elevation of over 6,000 feet, therefore, not only is the growing season limited (six months generally), but also the mean daily temperature. One hundred and ninety-five thousand acres of irrigated croplands produce crops of dry beans, $\frac{1}{2}$ pasture grass, hay, small grain, and corn.

The Basin is one of the most popular recreation areas in the state, with over fifteen million dollars per year being spent on hunting and fishing alone. There are several big game animals indigenous to the area such as elk, deer, black bear, and big horn sheep. The western cottontail rabbit is the principal small game animal, while others include the snowshoe hare, squirrels, game birds, and waterfowl. The Basin provides good fishing both in the streams and lakes which provide an excellent habitat for Rainbow, Native Brown, and Brook Trout; Walleye, Northern Pike, and Kokanee Salmon.

Winter sports are an important activity with approximately 85,000 skier visits annually. At the Purgatory Ski Area, the largest of five ski areas, in or adjacent

^{1/} The Dove Creek area is the major producer of beans in Colorado. This is dryland farming with very little if any irrigation water used.

to the Basin, development now in progress will make the San Juan Basin a major attraction for skiers. Cross country skiing and snowmobiling are currently among the rapidly growing winter sports.

The Denver and Rio Grande Western Railroad conducts daily passenger tours every summer on its narrow gauge line between Durango and Silverton. Formerly a principal means of transporting heavy freight, the railroad was converted to passenger service mainly due to the curtailment of mining and the topographic nature of the Basin, making the construction costs of expansion too high. $\frac{2}{}$ All freight moving into the Basin except from the South, must be transported by truck over the mountain passes. Highway construction and maintenance is costly due to the terrain and unstable shale soils, but cheaper than railroad construction.

The growth of the San Juan Basin is dependent on certain other utilities and their respective services such as the availability of telephone, electric, and natural gas. These are available in most communities, however, toll charges between cities and towns hamper communication.

There is a definite need for rural water and sewage disposal systems. A shortage of underground water and the limitations of certain soils for septic systems create
problems. This is particularly important at a time when rapid growth of subdividing
of farms and ranches for housing developments is taking place. Home construction and
recreational developments have been on the rise in rural areas in recent years, with
more rapid increase projected for the future.

Clean air and clear water are among the valuable resources of the area. Pollution of these resources must be eliminated. The most common source of water pollution in the San Juan Basin is sediment resulting from soil erosion. The lack of plant cover accelerates the runoff from snow melt and rain, leading to critically eroded areas. Deep gullies are the most obvious feature of these areas. Wind erosion on dry crop land is less critical generally, but is serious in some localized areas and contributes to air pollution. Air pollution on prevailing westerly winds from the Four-Corners Power Plant near Shiprock, New Mexico, is the major concern in the area. A scrubber is in the process of being installed to correct this situation. Pollution such as lumber mills, is of a minor extent.

Water is the most important resource in the San Juan Basin. Of the total annual water supply, approximately 270,000 acre feet are used locally. There are slightly over 195,000 acres of irrigated land within the Basin at the present time. Water will be available for an additional 250,000 $\frac{3}{}$ acres in the western part of La Plata County and dryland areas of Dolores and Montezuma Counties, with the proposed Animas-La Plata and Dolores Projects. There are nine major irrigation systems which distribute water to seventy percent of all irrigated crop lands in the San Juan Basin. They are listed in this report with other pertinent data concerning the administration of water in Division 7 for the year 1975.

^{2/} The change in mode of transportation also must be considered as a reason for the lack of railroad expansion.

^{3/} Subject to change depending on cost-benefit.

II. PERSONNEL

During the reporting year the following changes have occurred in the staffing of Division VII:

April 1, 1975

Bill Lynn, Water Commissioner B., received full-time status. Wilford Speer was promoted to Water Commissioner B to fill a Water Commissioner I vacancy.

Job classifications agreed to by the Legislature two years ago were funded as of this date.

July 1, 1975

Ted Sparks, Water Commissioner B, and Wilford Speer, Water Commissioner B, were given full-time status.

Reclassification changed titles of Water Commissioners and Water Resource Engineers. Increases due to reclassification were paid retroactive to April 1, 1975. The following changes were made in the Water Commissioner series:

OLD

NEW

Deputy Water Commissioner
Water Commissioner I
Water Commissioner II
Water Commissioner III
New Grade

Water Commissioner A
Water Commissioner B
Water Commissioner C
Senior Water Commissioner
Principal Water Commissioner

All Water Commissioners in Division VII are presently A or B.

September 1, 1975

Salary increases based on salary surveys were not fully funded by the Legislature this year. September 1 was the date the increase started, thereby not decreasing the rate of income but decreasing the fiscal impact. Salary increases for previous years became effective July 1, 1975.

Several adjustments were made due to the Governor's Austerity Program. Parttime vacancies were used to make three full-time Water Commissioners. Mileage continues to be a problem with the Legislature again funding only ten cents a mile while approving twelve cents. Even twelve cents per mile is far under the national average for sedan type vehicles. Mileage paid for individually-owned pickups and especially four-wheel drive vehicles required in the Division, is far below the break-even point; eighteen cents per mile for pickups and twenty-five cents per mile for four-wheel drive vehicles. 1/

The staff for Division VII is listed on the following page.

^{1/} Actual operating costs based upon \$0.50/gal. gasoline
and \$1.00/qt. oil.

II. PERSONNEL (continued)

NOVEMBER 1, 1974 to OCTOBER 31, 1975

NAME	POSITION		GRADE	MONTHS W	BUDGI RKED	ETED/	MILEAGE
FULL TIME EMPLOYEES	- OFFICE						
Wayne M. Crosby	Division Enginee	er	P. E. V	12	!	12	1,382 P 4,368 S
Orlyn J. Bell	Asst. Div. Engin	neer	P. E. III	12		12	940 P 4,864 S
Kenneth J. Cooper $\frac{1}{2}$	Hydrographer		P. E. II	12	:	11	23,605 S
Ann-L. Fauth	Secretary		Secretary 1-A	12	!	12	-
FULL TIME EMPLOYEES	- FIELD		,	MONIMIC	DUDG		
NAME	POSITION		RIVER BASIN	MONTHS WO	RKED	ELED/	MILEAGE
E. Ivan Danielson	Water Comm. B		Animas River	12		12	7,819 P
George E. Davis	Water Comm. B		Florida River	12	!	12	8,158 P 5,933 S
George Edmonson	Water Comm. A		McElmo Creek	12	?	12	11,243 P 1,089 S
Glen E. Humiston	Water Comm. B		Mancos R., McElmo Cr., Dolores R., Disappointment Cr	12	!	12	13,055. S
J. Russell Kennedy	Water Comm. B		La Plata River	12	:	12	13,145 P
William P. Lynn ² /	Water Comm. B		Blanco R., Navajo R., Piedra R., Sa Juan River		!	12	7,855 P
Larry Nielsen	Water Comm. B		Navajo/Blanco R.	12	!	12	12,636 P
Avrit G. Sparks $\frac{3}{}$	Water Comm. B		Pine R., Siembrit	as 12	!	12	12,094 P
Wilford E. Speer $\frac{4/3}{2}$	Water Comm. B		Dolores R., Disap ointment Creek	p- 9.5	3	11	12,393 P
PERMANENT PART TIME	EMPLOYEES - FIELD)					
Roy M. Brown, Jr.	Water Comm. A	-	Lower Blanco, San Juan R.	. 8	}	8	453 P 9,130 S
Ronald R. Robinson	Water Comm. A		Piedra River	6	, •	6	6,007 P
Bob R. Shahan	Water Comm. A		Blanco/Navajo R.	4	ļ	4	2,752 P
Lawrence J. Shock	Water Comm. A		Siembritas Cr./ Lower Pine R.	3	:	10.5	11,136 P
			TOTAL	167.5	-	182.5	108,013 P 62,044 S
		GRAND	TOTAL				170,057

^{1/} Transferred to Division II Oct. 1, 1975
2/ Full time status April 1, 1975
3/ Full time status July 1, 1975
4/ Filled Water Comm. I vacancy April 1, 1975
5/ Extra time alloted for tabulation

Private vehicle

State vehicle

III. WATER SUPPLY

A. SNOW PACK (Winter 1974-1975)

A record-breaking snowfall was accumulated this year with 800 inches of snow falling on Wolf Creek Pass (the old record was 619"). This is hard to believe and wasn't in the Water Division News, where a reported 700 inches in May was edited to print as 100 inches. The Purgatory Ski Area closed for the season in late April with 104 inches of packed base at Midway. The snow melt came in late June with a gradual warming trend that kept all rivers within their banks.

Snow courses are tabulated below with the addition of two. The La Plata Snow Course previously measured by the U.S. Soil Conservation Service and discontinued in 1958, was reactivated to predict runoff involved in the La Plata River Compact. A new course was laid out at "T Down" to forecast runoff on the East, West, and Middle Mancos Rivers involved in litigation over Indian rights. Correlation of forecast with runoff was good on both rivers.

SNOW PACK	NO. OF COURSES AVERAGED	THIS YEAR'S WATI AS A PERCENTA LAST YEAR	
Animas River	. 6	239	207
Dolores River	4	253	292
San Juan River	4	218	181
La Plata River	2	Reactivated	his year
Mancos River	1	New course th	nis year

	APRIL THRU SEPT.				
WATER SUPPLY	(1000 A.F.) FORECAST	% OF AVERAGE	15 YEAR AVERAGE	THIS YEAR	% OF LAST YEAR
WATER SOITE	TOTELCADI	HVDIGIG	AVERAGE	ILAK	LAST TEAK
Animas River at Durango	735	176	423	689	203
Dolores River at Dolores	395	170	232	378	210
La Plata River at Hesperus	43	180	24	42	253
Piedra River near Arboles	340	184	185	407	227

		FLOW PERIOD
STREAM SUPPLY OUTLOOK	SPRING	SUMMER
Florida River	Excellent	Excellent
San Juan River	Excellent	Excellent
Piedra River	Excellent	Excellent
Animas River	Excellent	Excellent
Dolores River	Excellent	Excellent

There was adequate irrigation water available for raising crops in all streams this year.

SOIL MOISTURE

Soil moisture information for the San Juan Basin cannot be correlated accurately with runoff, due to the varying types and thicknesses of soils, without additional research and data.

III. WATER SUPPLY B. PRECIPITATION (Summer 1975)

Cool night and day temperatures continued until the fourth week in June, so that precipitation received was in the form of rain at the lower elevations and snow above 9,000 feet. Normal precipitation continued the remainder of the summer with an exceptionally warm and dry fall season.

III. WATER SUPPLY C. FLOODS

Although a record snow pack was received and flooding was anticipated, the cooling effect of the heavy snowpack and/or a cool spring, contained the runoff in the high stage. Although an extended period of high water was experienced, little flood damage was caused. No claims of damage were noted by this office.

III. WATER SUPPLY
D. WATER BUDGET FOR 1974

	GUDDEU 3 D	DEMAND A D	
WATER DISTRICT	SUPPLY - A.F.	DEMAND - A.F.	OUT OF DISTRICT - A.F.
29	96,889	134,988	157,540
30	288,158	171,921	361,100
31	185,297	185,474	77,270 (8,562 A.F. to Dist. 46)
32	40,394	42,493	25,070
33	20,327	13,110	9,825
34	29,893	24,406	7,010
46	8,562	6,056	2,506
69	10,225	3,421	6,917
71	134,179	211,835	167,278 (16,173 A.F. to Dist. 32)
77	52,164	59,729	36,900
78	106,918	52,265	118,700
DIVISION VII	973,006	905,698	994,851

III. WATER SUPPLY E. UNDERGROUND WATER

			CHANGE BY UPDATE	
	TYPE	NO. OF WELLS	11-17-75	AMOUNT REGISTERED IN C.F.S.
(0)	HOUSEHOLD	36	+18	.63
(1)	DOMESTIC	1,246	+54	37.1
(2)	STOCK	100	+10	2.4
(3)	DOMESTIC AND STOCK	88	+19	5.6
(4)	COMMERCIAL	41	+2	3.5
(5)	INDUSTRIAL	20	0	13.7
(6)	IRRIGATION	10	0	4.4
(7)	IRRIGATION AND STOCK	2	0	2.3
(8)	MUNICIPAL	17	0	3.0
	TOTALS	1,560	+103	72.6

Most of the permits processed for this year were for in-house use with a few domestic and commercial. Most of the land developers are letting the purchasers secure their own water. Most developers are now aware that they must secure exchange or supplemental water in the critical areas where wells are proposed. Consequently, problems in this area are diminishing.

Waste disposal systems, as they conflict with exempt status wells, is the most current trouble area. The San Juan Basin Health Unit has seen fit to (almost without exception) require evaporative type systems to be installed where the Division of Water Resources requires the waste effluent to be returned to the aquifer from which the water supply originated. Tertiary systems, although workable, are rejected due to objections to the discharge of the treated effluent even though a federal discharge permit can be secured. Percolation tests are taken at the surface without a determination of what may lie a few feet below the surface that would be acceptable.

Application to adjudicate two wells, originally oil wells, have been received and late registration or denial determination is pending from the Ground Water Section. The wells supposedly flow approximately 3,000 g.p.m. each. The applicant wishes to use only 15 g.p.m. from each well. Well logs have been furnished the Division of Water Resources. One interesting question is whether or not the flow is a non-tributary supply.

III. WATER SUPPLY
F. TRANSMOUNTAIN DIVERSIONS

	WATER ISTRICT	SOURCE OF SUPPLY	RECIPIENT	AMOUNT A.F.
Pine R. Weminuche Pass (Fuchs Ditch)	31	Pine River	Leland & Harley Fuchs Del Norte, CO	131
Weminuche Pass Ditch (Raber-Lohr Ditch)	31	Pine River	Hilde Lohr & Leon Raber Del Norte, CO	1,548
Treasure Pass Diversion	29	San Juan R.	Fred Falk, Del Norte, CO	468
Williams Creek Squaw Pass Diversion Ditch	78	Piedra River	Seaborn Collins, Navajo Development Co., Creede, CO	196
Don LaFont Ditch #1 E., South River Peak Ditch	78	Piedra River	Colo. Division of Wildlife	317
Don LaFont Ditch #2 W. (Piedra Pass Ditch)	78	Piedra River	Colo. Division of Wildlife	94
Carbon Lake Ditch	30	Animas River	Ouray Ditch Co., Montrose, CO	195
Red Mountain Ditch	30	Animas River	Ouray Ditch Co., Montrose, CO	191
Mineral Point Ditch	30	Animas River	Warren Gibbs, Ouray, CO	No Structure
St. John Ditch	30	Animas River	Charles Gunn & W. Worley, Olathe, CO	No Structure

III. WATER SUPPLY

G. RESERVOIR STORAGE

A record snow pack produced an abundant water supply that filled to capacity all reservoirs in Division VII. Tabulations of amounts in storage will be furnished with a computer printout of summaries, at a later date.

IV. AGRICULTURE

Dry beans, the major crop for this area, had 37,000 acres less planted in 1974 than in 1973, while yields increased by 59 pounds per acre. Total production was 211,500 cwt under 1973. Price per cwt increased by \$2.10 over the previous year, but with the drop in production total, income was 5,064,600 dollars less in 1974.

This year (1975) production of dry beans is estimated at 1,880,000 cwt. This area will contribute approximately 1,071,600 cwt of the total, or 57%. The current estimate is 15% above 1974. A production increase of 3% per acre is forecast, increasing in the southwest from 370 to 400 cwt per acre. Crop quality is good with some staining caused by rain showers during harvest. Price per cwt was \$20.50 as of October 15, 1975 - a decline of \$10.50 per cwt from a year ago.

Baled hay increased \$.50 per ton, while production was slightly above last year but still below 1973. A late spring and dry summer were the contributing factors. Pastures and ranges, while very dry, seem to be adequate for fall and winter grazing.

The livestock index is up 15% over a year ago, with hogs, \$55.70; beef cattle, \$40.50; steers and heffers, \$42.00; calves, \$31.60; and lambs, \$43.90 per cwt as of October 15. Beef cattle increased \$5.30; steers and heffers \$6.00, calves \$1.30, and lambs \$4.90 per cwt above 1974.

V. COMPACTS AND AGREEMENTS

I. THE LA PLATA RIVER COMPACT

The New Mexico water commissioner called for the available water to be split between Colorado and New Mexico on June 25, 1975 under the terms of the Compact Agreement. The New Mexico Water Master subsequently indicated that New Mexico could utilize only 60 to 70 c.f.s.; therefore, Colorado curtailed to that amount and began the actual one-half split on July 14, 1975. The division of water continued until August 25, 1975 when Colorado, unable to pass an acceptable amount of the 17 c.f.s. of flow at Hesperus on through to the State Line, applied a futile call and began diverting all of the upper water.

Through June, the river supply exceeded the demand for water due to the extremely high snowpack. Some damage occurred to both Colorado and New Mexico diversion works due to the lengthy high volume of runoff. In July, supply was adequate and more than most years, but August, September, October and November were far from adequate. Precipitation occurring in these months varied from none to extremely limited.

The high and lengthy runoff, coupled with the very limited late season supply, combined to make this season a very easy one to administer, but one with many diversion record entries.

II. THE SAN JUAN-CHAMA DIVERSION PROJECT

Some progress has been made toward solution of our problems with the Bureau of Reclamation. Depositions have been taken from the Bureau of Reclamation personnel by the attorneys for Schutz vs Stamm, both in the Chama and Amarillo offices. These

depositions cover persons actually operating the Project, to those making the decisions. A court date has not been set as yet. The Jicarilla-Apaches, through the Bureau of Indian Affairs, have become a party to this suit concerned with the water they get via the Navajo River in Colorado.

Division VII Water Court Decrees for minimum flows on the Navajo and Blanco Rivers were refused by the U.S.B.R. Preparations are now being made to enjoin them and force compliance. This conflict will undoubtedly end up in Court also. Tabulation and update of the Decrees on the Navajo and Blanco Rivers is in process in anticipation of the impending suit.

There was an abundance of water this year, but the problems continue with the U.S.B.R. operating the San Juan-Chama Project as if they were the administration agency for Colorado Water.

VI. DAMS

with the filling of all dams to capacity, problems again occurred in the older earth-filled dams. The monitoring program has improved with more frequent inspections identifying trouble areas before they became emergencies. The exception was Electra Lake Dam. Unlike most earth-filled dams, Electra Lake Dam is composed of cribbing containing large rocks. These rocks have smaller rock and fines between. The construction of the dam allows large amounts of water to leak through the structure when the fill between washes out. This does not endanger the dam to the degree that it would a compacted earthfill, but does cause great alarm. The leak was corrected by replacing the fill between the large rocks. Also, repair of the wooden cribbing where it is deteriorating was accomplished last month by replacing it with concrete.

The runoff, although of record proportions, came off slow with sustained high flows lasting well into July. Negligible damage was recorded due to the runoff this year.

VI. DAMS

B. LIVESTOCK WATER TANKS

Stocktank and/or erosion control dam permits were issued in individual districts as follows:

DISTRICT	NUMBER OF PERMITS
29	18
30	2
31	3
32	8
33	6
34	0
46	0
69	. 7
71	8
77	0
78	0

VII. WATER RIGHTS

A. TABULATION

Many corrections to the Water Rights Tabulation put on sale October 10, 1974 were made throughout the water year. Some were initiated as valid protests to the tabulation, but most corrections came from within the Division, as Decree research progressed and typographical errors, mapping deficiencies, and policy decisions, to name a few, were discovered.

Much legwork has been done by Division VII personnel this past year, toward getting water right owners to correct and revise their Decrees according to present operation and location. A system was worked out with the Water Court whereby owner-instigated corrections to the Court Decrees could be filed without costing the owner anything but a signature. After several months of these, the Court began charging a \$10.00 filing and publication fee, which has brought this method of removing inaccuracies from the Decrees to a screeching halt.

The exactness required of the Tabulation is always demanding, and at times, quite exasperating.

VII. WATER RIGHTS

B. REFEREE'S FINDINGS AND DECREES

			INVESTIGATED		
		NO. FILED	BY DIVISION VII	REFEREE RULINGS	COURT DECREES
1.	Underground Water Rights	15	15	9	2
2.	Change of Water Rights	32	32	27	23
3.	Plans of Augmentation	3	3	3	3
4. 5.	Surface Water Rights Due Diligence:	37	30	20	17
٠.	Quadriennial Findings	3	3	3	. 0
	Conditional Made Absolute	15	15	13	8
6.	Water Storage Rights	5	5	1	1
	TOTALS	110	103	76	54

Filing of Water Rights numbers W-1280-74 through W-1385-75 were received this year and processed as indicated in the table above. Applications are current and processed as they are received with no appreciable backlog.

No further action has been taken regarding cases W-1120-73 through W-1139-73, and W-1143-73 through W-1148-73, filed by the U.S. Department of Justice, Land and Natural Resource Division.

There are still two major Plans of Augmentation outstanding and in Conditional status pending proof of non-injury to senior appropriators. They are Golf Host West and Eaton International. There were three other filings that should have been filed as plans of augmentation, but were not.

Adjudication of exempt wells has slowed compared to a year ago, after a lot of public contact encompassing the ramifications of taking a well out of the exempt status by adjudication.

Three minimum flow decrees have been processed; one on the Dolores River and one each on the Blanco and Navajo Rivers. The Decreeson the Dolores River will be satisfied

with the building of McPhee Reservoir, while the Decrees on the Blanco and Navajo Rivers are consistant with the San Juan-Chama Diversion Project, except for the determination by the U.S. Bureau of Reclamation that minimum flows should exist only at point-of-diversion, and not throughout the stream reach. Minimum Flow Decrees tend to prevent change in point of diversions on over-appropriated streams.

VIII. ORGANIZATIONS

A. WATER CONSERVATION AND CONSERVANCY DISTRICTS

NAME	ADDRESS	ATTORNEY	PRESIDENT
La Plata Water Conservation	Box 497 Durango	F. S. Maynes	V. A. Paulek
Dolores Water Conservancy	16 E. Main Cortez	George Armstrong	Bruce McAfee
Florida Water Conservancy	Box 1157 Durango	L. W. McDaniel	Loyd Hess
Mancos Water Conservancy	Cortez	Guy Dyer	Noland Alexander
Pine River Irrigation Dist.	843 Main Durango	Robert Duthie	Frank Wommer, Jr.
San Miguel Water Conservancy	Box 497 Durango	F. S. Maynes	George M. Young
Southwest Water Conservation	Box 497 Durango	F. S. Maynes	Fred Kroeger

		•
VIII. ORGANIZATIONS		
B. INCORPORATED DITCH COMP	ANIES	
NAME	OFFICER	ADDRESS
DISTRICT 29		
Echo Ditch Co.	William Jackson	Pagosa Springs, Colorado
Park Ditch Co.	Hood Formwalt	Pagosa Springs, Colorado
		angoza spilingo, conclude
DISTRICT 30		
Animas Ditch Co.	R. V. Bonds	Rt. 2, Box B61, Durango, CO
Animas Consolidated Ditch Co.	Gary Brooks	Rt. 1, Durango, Colorado
Florida Canal Co.	T. G. Eggleston	135 Riverview, Durango, CO
Hermosa Ditch Co.	Ted Harer	Rt. 1, Box 397C, Durango, CO
Pioneer Ditch Co.	Roy Annala	Rt. 1, Box 378, Durango, CO
Reid Ditch Co.	Animas Valley Ditch	2815 Main Ave., United
	Co., % Larry Simmons	Realty, Durango, Colorado
DISTRICT 31		
King Ditch Co.	James F. Mayfield	Rt. 1, Ignacio, Colorado
Los Pinos Ditch Co.	Frank Ludwig, Jr.	Box 245, Bayfield, CO
Robert Morrison Ditch Co.	Delwin Fassett	Rt. 2, Durango, CO
Schroder Irrigation Ditch Co.	Lucian Squires	Bayfield, Colorado
Spring Creek Ditch Co.	Ed Lane	Rt. 2, Ignacio, Colorado
Sullivan Ditch Co.	Chris Kugle	Rt. 1, Bayfield, Colorado
Thompson-Epperson Ditch Co.	E. G. Loring	Rt. 1, Bayfield, Colorado
Vallecito Reservoir	Pine River Irr.	·
	Dist, % Frank Wommer	Rt. 1, Bayfield, Colorado
DISTRICT 32		
Montezuma Valley Irr. Co.	Victor Bryan	Cortez, Colorado

Incorporated Ditch Companies (continued)

NAME	OFFICER	ADDRESS
DISTRICT 33		
Big Stick Ditch Co.	Grant Paulek	Hesperus, Colorado
Hay Gulch Ditch Co.	Lawrence Huntington	Hesperus, Colorado
H. H. Ditch Co.	Orlo Schmitt	Hesperus, Colorado
Joseph Freed Ditch Co.	Nancy Price	Hesperus, Colorado
La Plata River & Cherry Creek		
Ditch Company	Roland Bartel	Mancos, Colorado
Lightner Canal	V. A. Paulek	Hesperus, Colorado
Pine Ridge Ditch Co.	Colo. Div. Wildlife	Durango, Colorado
Red Mesa-Ward Reservoir &		
Ditch Supply Co.	Nancy Price	Hesperus, Colorado
Reorganized Revival Ditch Co.	Lila Greer	Hesperus, Colorado
Slade Ditch Co.	Judy Albrecht	Hesperus, Colorado
Townsite Ditch Co.	Judy Albrecht	Hesperus, Colorado
Treanor Enterprise Ditch Co.	Ruth Candelaria	Marvel, Colorado
DISTRICT 34		
Bauer Lakes Water Company	Leroy Everett	Mancos, Colorado
Root & Ratliff Ditch Co.	Lloyd Doerfer	Mancos, Colorado
Town of Mancos Ditch Co.	Geraldine Wallace	Mancos, Colorado
Webber Ditch Co.	Vernon Ellis	Mancos, Colorado
Webber Reservoir & Ditch Co.	Foster Hall	Mancos, Colorado
DISTRICT 71		
Summit Irrigation System	Eddie McRea	Dolores, Colorado
Groundhog Reservoir & Beaver		,
Ditch System	Victor Bryan	Cortez, Colorado
Montezuma Valley Irrigation	-	· · · · · · · · · · · · · · · · · · ·
System	Victor Bryan	Cortez, Colorado
DISTRICT 78		

IX. WATER COMMISSIONERS' SUMMARIES

Piedra Falls Ditch Company

Problems with computer time prevent including the summaries with the Annual Report at this time. These pages will be inserted as soon as possible after the Data Bank printouts have been received and the summaries worked up.

Raymond McWhiter

Pagosa Springs, Colorado

XI. RECOMMENDATIONS AND SUGGESTIONS

A. GROUND WATER DATA - STUDIES

Geological data is presently being gathered for submittal to Denver in an endeavor to update our ground water supply data in this Division. Unless the ground water is used in this Division, it is lost to Colorado users forever. There are oil well logs that are no longer competetive, and some stratagraphic maps available. An evaluation of this data and possibly a ground water study will then be needed.

B. <u>DIVERSION RECORDS AND DATA BANK</u>

We realize the problem with obtaining computer time to finalize the total annual diversion records for each Division. It is suggested there be a time delay for this part of the Annual Report, and submission be thirty, sixty, or ninety days later.

I wish to thank each and every one on the Division VII staff for another good year. The Data Bank was installed Division-wide. Two new snow courses were laid out with valuable data obtained that correlated with the runoff for a record water year.

Many more measuring devises and recorders were installed, facilitating better administration. Acceleration of Dam Safety and Ground Water Administration also increased the work load.

Again, with excellent performance by all, many thanks for a job well done to all in Water Division VII, and our thanks as a Division for the support of the Denver staff.

Sincerely,

Wayne M. Crosby, P.

Division Engineer

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