RICHARD D. LAMM
Governor

JERIS A. DANIELSON
State Engineer

DIVISION OF WATER RESOURCES

DARIES C. LILE, P.E.
DIVISION WATER ENGINEER
DIVISION 7
P.O. Drawer 1880
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January 17, 1983

Dr. Jeris A. Danielson
State Engineer
1313 Sherman St.
Denver, Colorado 80203

Dear Dr. Danielson:

Attached herewith is the Division 7 Annual Report for the irrigation year 1981-1982.

Respectfully submitted,

Daries C. Lile, P.E.
Division Engineer

DCL:alf
enclosure

CONTENTS

I. INTRODUCTORY STATEMENT

Irrigation Division 7 comprises the drainage basins of the San Juan and Dolores Rivers which are tributaries of the Colorado River. The geography includes high mountains over 14,000 feet, narrow valleys and broad mesas of agricultural lands. The snow pack from the high mountains provides the majority of the water supply, and with occasional summer rains, there is generally adequate water to meet the needs of irrigated agriculture and surrounding communities.

There are two major water development projects being undertaken: The Dolores Project is being constructed, and the Animas-La Plata is ready for construction pending congressional authorization of funds. The outlet spillway, and cutoff trench have been completed on the McPhee Dam, the major component of the Dolores Project, and the embankment material is being placed. Projected completion of the dam is two years. Work has started on the Dolores tunnel and Great Cut Dike, another component of the Project.

The Animas-La Plata Project is being held up as a result of funding from congress. Presently the states of Colorado and New Mexico are attempting to provide matching funds to encourage the federal government to approve a construction start.

The U.S.B.R. is working on a salinity control project for the McElmo drainage which, as a result of heavy irrigation, contributes high quantities of salt to the Colorado River. It is proposed that by lining of canals and more efficient irrigation practices, the salt can be reduced significantly.

Recently, the Colorado State Supreme Court ruled on the Federal Reserved Claims in Divisions 1, 4, 5 and 6, clearing the way for resolution of problems for the other divisions. Thus it appears that the now pending Indian claims in Division 7 will begin to move through the courts. In anticipation of this action, the Colorado Legislature appropriated $3 million dollars for legal and engineering fees to prepare for the case. If a large amount of water is awarded to the Indian tribes there would be a major impact to the other users in Division 7, particularly on the Mancos and La Plata Rivers.

During the past year, the Division was severely restricted as to monies for travel and operating. There was no travel allowed during the first part of April, and a reduction of travel from May through June. This resulted in loss of valuable records as to water use and hampered our ability to administer the streams. The entire state is suffering from a recession which is resulting in less money for government. It appears that this budget year will also be inadequately funded, and we are already reducing travel and operating expenses to the minimum in hopes that there will be money for administration during the Spring.

II. PERSONNEL

NAME	POSITION	FISCAL YEAR MONTHS BUDGETED/ WORKED		FISCAL YEAR MILEAGE
DARIES C. LILE	DIVISION ENGINEER	12	12	1,719 P 6,061 S*
KENNETH A. BEEGLES[1/]	ASSISTANT DIVISION ENGINEER	9	9	796 P 11,675 S*
Ann-Louise Fauth	Secretary	12	12	--

FULL TIME EMPLOYEES IN FIELD

NAME	POSITION	DISTRICT			
WILLIAM E. BAKER	WATER COMM. B	32	12	12	8,451 P
E. IVAN DANIELSON	WATER COMM. C	30	12	12	4,533 P
GEORGE E. DAVIS	WATER COMM. C	30	12	12	3,354 P 10,676 S
GLEN E. HUMISTON	WATER COMM. C	32,34,69,71	12	12	16,350 S
J. RUSSELL KENNEDY	WATER COMM. C	33	12	12	12,350 P
WILLIAM P. LYNN	WATER COMM. C	29,77,78	12	12	8,221 P
LARRY NIELSEN	WATER COMM. B	77	12	12	8,424 P
AVRIT G. SPARKS	WATER COMM. C	31, 46	12	12	11,686 P
WILFORD E. SPEER	WATER COMM. C	69,71	12	12	12,511 P

PERMANENT PART-TIME EMPLOYEES IN FIELD

ROY M. BROWN, JR.	WATER COMM. B	29,78	6.0	8.1	9,991 P
BOB R. SHAHAN	WATER COMM. B	77	4.0	1.0	511 P
LAWRENCE J. SHOCK	WATER COMM. B	31,46	7.0	9.0	6,962 P
JOHN J. TAYLOR	WATER COMM. A	78	5.0	2.8	1,946 P
	TOTALS		163.0	161.9	91,455 P 44,762 S
	TOTAL MILEAGE FOR PERIOD				136,217

1/ Kenneth Beegles appointed A.D.E. Sept. 1, 1981; continued to do hydro work until official appointment of Scott D. Brinton 7/5/82 as hydrographer.
Mileage down for water commissioners 15,116 miles and state vehicles down 12,137 miles due to curtailment March - June 1982 due to lack of funds.

*State vehicles also used by visiting dam inspectors and other Denver personnel.

III. WATER SUPPLY

A. SNOW PACK (Winter 1981-1982)

The seasonal accumulation during the winter of 1981-1982 was excellent in the San Juan Mountains. The heavy snow pack in conjunction with a cool spring allowed for irrigation water well into the summer months until the second half of July. Snow course readings and streamflow predictions were as follows:

SNOW PACK	NO. OF COURSES AVERAGED	THIS YEAR'S WATER CONTENT AS A PERCENTAGE OF LAST YEAR	AVERAGE
ANIMAS RIVER	8	353	118
DOLORES RIVER	6	525	152
SAN JUAN RIVER	6	347	134
LA PLATA RIVER	1	630	107
MANCOS RIVER	1	---	120

WATER SUPPLY	APR. THRU SEPT. FORECAST (1,000 A.F.)	APR. THRU SEPT. RECORDED (1,000 A.F.)	15 YR AVERAGE (1,000 A.F.)	APR. THRU SEPT. % of AVERAGE
ANIMAS RIVER @ DURANGO	540	579	425.3	127
DOLORES RIVER @ DOLORES	283	346	232.9	121
LA PLATA RIVER @ HESPERUS	30	30	23.5	128
PIEDRA RIVER @ ARBOLES	270	290	200.7	134
SAN JUAN @ CARRACAS	490	418	369.8	132
PINE RIVER @ BAYFIELD	247	220	204.4	118

B. PRECIPITATION

The wet winter conditions were followed by normal spring rains and the summer months of August and September were extremely wet. The August precipitation assisted the resvoir storage and the Pine River, Mancos River and Florida River were free from administration the last half of the month. This has allowed for increased carryover storage for the upcoming season.

The following table compares the 1982 water year precipitation with normal for Durango, Colorado.

MONTH	PRECIPITATION	HISTORIC NORMAL "
OCTOBER 1981	3.53"	2.60"
NOVEMBER	1.26"	1.36"
DECEMBER	.47"	1.57"
JANUARY 1982	1.29"	2.24"
FEBRUARY	1.69"	1.69"
MARCH	2.86"	1.98"
APRIL	.64"	1.11"
MAY	1.45"	1.07"
JUNE	.45"	.39"
JULY	.94"	1.44"
AUGUST	2.74"	1.76"
SEPTEMBER	2.22"	1.66"
	19.54"	18.87"

B-1 COMPARATIVE STREAM FLOW DATA

MONTH	TEN YEAR MONTHLY AVERAGE STREAMFLOW	1981-1982 MONTHLY STREAMFLOW	PERCENT OF MONTHLY AVERAGE	PERCENT OF CUMULATIVE MONTHLY AVERAGE
LA PLATA RIVER AT HESPERUS				
October	1,046	1,290	123	123
November	651	714	110	118
December	475	492	104	115
January	395	395	100	113
February	359	340	95	110
March	707	653	92	107
April	3,330	3,670	110	108
May	9,011	10,000	111	110
June	10,031	9,020	90	102
July	2,990	2,220	74	99
August	1,037	2,970	286	106
September	800	2,370	296	111
Totals	30,832	34,130		
LA PLATA RIVER AT STATE LINE				
October	933	710	76	76
November	534	492	92	82
December	591	751	127	95
January	559	560	100	96
February	746	653	88	94
March	1,546	2,130	138	108
April	7,830	4,130	53	74
May	10,225	5,450	53	65
June	6,159	4,410	72	66
July	1,743	1,650	95	68
August	402	1,730	430	72
September	287	1,140	397	75
Totals	31,555	23,810		
ANIMAS RIVER AT HOWARDSVILLE				
October	1,757	2,990	170	170
November	1,235	2,180	177	173
December	1,063	1,450	136	163
January	945	1,110	117	155
February	784	906	116	149
March	905	1,120	124	146
April	1,998	2,100	105	136
May	12,266	11,240	92	110
June	25,982	33,390	129	120
July	13,251	19,050	144	126
August	3,990	10,460	262	134
September	2,335	8,990	385	143
Totals	66,511	94,980		
NAVAJO RIVER AT BANDED PEAKS RANCH				
October	3,137	5,170	165	165
November	2,172	2,310	106	141
December	1,819	1,750	96	129
January	1,694	1,760	104	125
February	1,589	1,710	108	122
March	2,280	2,290	100	118
April	6,034	9,220	153	129
May	18,829	23,190	123	126
June	25,257	29,700	118	123
July	10,533	14,170	135	124
August	3,625	8,240	227	129
September	2,695	9,550	354	137
Totals	79,664	109,100		

C. FLOODS

There were no floods of significance in Division 7 during the past irrigation season. There was concern for potential flooding in August as a result of the continuing rain and on two occasions the National Weather Service issued flash flood watches. However, none of the thunder storms fully materialized.

Peak flows at various gaging stations are shown below:

STREAM	DATE 1982	C.F.S. PEAK
ANIMAS RIVER AT DURANGO	June 13	3,920
LA PLATA RIVER AT HESPERUS	Aug. 25	410
LA PLATA RIVER AT STATE LINE	Oct. 3	680
MANCOS RIVER AT MANCOS	Aug. 25	564
DOLORES RIVER AT DOLORES	May 5	2,960
SAN JUAN RIVER AT PAGOSA	May 3	2,240
PIEDRA RIVER AT ARBOLES	April 13	4,060

D. WATER BUDGET

A table has been prepared on the following page which attempts to establish the basin yield unencumbered by man-made uses. This table is an estimate of virgin flows utilizing the data available. In most cases, there is insufficient information to determine accurate consumptive uses, and as more resources become available the accuracy of this data will improve.

It should be noted that particularly in the Dolores drainage, a considerable amount of inflow occurs below the gage at the town of Dolores. However there are no gaging stations downstream at the boundary between Divisions 7 and 4 for establishing base flow. This is also the situation for the Siembritas Arroya which flows directly into Navajo Reservoir in New Mexico.

To establish an accurate water budget will require the construction of gages at or near the State Line on several streams. Also, information as to municipal return flows, irrigated acres, and consumption from industrial uses need to be improved.

III. D. WATER BUDGET

FLOWS IN ACRE FEET

I.Y. 1981-1982

DRAINAGE	GAGED FLOW	ACRES IRRIGATED	EST. IRR. DEP.	EST. RES. EVAP.	EST. MUNICIPAL DEP.	FLOW BYPASSED GAGE	TRANS. MT. DEPLETION	STORAGE CORRECTION	ESTIMATED BASIN YIELD
SAN JUAN RIVER[1/]	528,700	17,782	21,300	300	500		119,398[4/]	145	670,350
PIEDRA RIVER	347,800	8,232	9,900	1,500	60		353	279	359,900
PINE RIVER[2/]	193,100	56,717	102,000	4,950	200		2,194	40,490	342,950
ANIMAS RIVER	757,700	34,442	62,000	3,300	1,200	10,549	526	25,675	860,950
MANCOS RIVER	42,270	14,923	30,000	670	220			2,024	75,200
LA PLATA RIVER	25,398	10,659	17,000	120		1,421		429	44,400
MC ELMO CREEK	33,410	45,587	114,000	2,000	1,000		-141,396[5/]	-3,178	5,850
DOLORES RIVER[3/]	383 800	2,046	2,500	1,900	350		12,310[6/]	13,714	414,600[7/]
DISAPPOINTMENT CREEK	16,860	1,533	2,300	70				-9	19,220

NOTE: Figures included in this budget are based on estimates and should only be considered as such. As more accurate irrigated acres are calculated better values of irrigation depletions can be determined. Also, reservoir evaporation and municipal depletions need additional data to improve the accuracy.

1/ Includes Blanco and Navajo Drainages, Districts 29, 77.
2/ Combined flow of Pine River at La Boca and Spring Creek gages plus estimate of Siembritas Arroya.
3/ Flow gaged at town of Dolores and includes Montezuma Valley Irrigation water.
4/ Includes 119,010 A.F. San Juan Chama diversions into New Mexico and 388 A.F. into Rio Grande Basin in Colorado
5/ Correction for imported water from District 71, Dolores River.
6/ Diverted to Summit Reservoir and used in District 32, McElmo Drainage.
7/ Does not include drainage below town of Dolores.

E. UNDERGROUND WATER

The pending deep water case as it has become known, has been briefed and final arguments held before the Colorado State Supreme Court. This case has been in litigation since 1978 and hopefully, a decision will be reached in 1983.

The geothermal system established in Pagosa Springs became quite controversial during the past year. The town of Pagosa filed for water rights and were protested by all other users of geoghermal waters in the area. A permit to operate the newly 1.3 million dollar system was denied and consequently, there was no production from the wells during the winter of 1982. The town board in Pagosa did conduct a testing program in the Fall of 1982 to determine the effect of their wells on the aquifer, and in November a test program for the upcoming winter was agreed to by all geothermal users. At this time it is only requiring approximately 120 g.p.m. to meet the needs of the system, instead of the projected 600 g.p.m. It appears that the problems associated both physically and legally will be resolved without lengthy court proceedings.

There is still a high demand throughout the Division for small domestic and household use wells. The majority of ground water problems that occur are the result of needs for better domestic water. Presently, there are 2,380 household, domestic and livestock wells registered, however, this is probably less than half of the wells being utilized since our records only reflect registered wells and in many instances the well owners have not completed registration with our office.

F. TRANSMOUNTAIN DIVERSIONS

NAME OF DITCH	WATER DISTRICT	SOURCE OF SUPPLY	RECIPIENT	AMOUNT A.F.
Pine R. Weminuche Pass (Fuchs Ditch)	31	Pine River	L. B. McClung, Del Norte	614
Weminuche Pass Ditch (Raber-Lohr Ditch)	31	Pine River	Colo. Div. of Wildlife	1,580
Treasure Paas Diversion	29	San Juan R.	Falk Bros., Del Norte	388
Williams Cr. Squaw Pass Diversion Ditch	78	Piedra River	Navajo Development Co., Creede	144
Don LaFont Ditch #1 (S. River Peak Ditch)	78	Piedra River	Colo. Div. of Wildlife	79
Don LaFont Ditch #2 (Piedra Pass Ditch)	78	Piedra River	Colo. Div. of Wildlife	130
Carbon Lake Ditch	30	Animas River	Pinion Ditch Co., Montrose	526
Red Mountain Ditch	30	Animas River	Leonard Hinman, Montrose	0

III G. RESERVOIR STORAGE IN ACRE FEET

I.Y.E. 1981-1982

DISTRICT 29	BEGINNING OF SEASON	MAXIMUM	END OF SEASON
BARROW DITCH AND RESERVOIR	8	8	8
BLANCO RETAINING POND	1	1	1
BORNS LAKE RESERVOIR	64	64	64
RRAMWELL RESERVOIRS, 1, 2, 3	3	3	3
BROWN RESERVOIR	3	3	3
CRESCENT LAKE RESERVOIR	30	30	30
ECHO CANYON RESERVOIR	2,149	2,149	1,849
FREEMANS LAKE AND SPRING	4	4	4
GALE RESERVOIR SYSTEM NO. 1	10	10	6
GALE RESERVOIR SYSTEM NO. 2	7	10	10
GALE RESERVOIR SYSTEM NO. 3	11	11	11
HARRIS BROS. AND BOONE RESERVOIR NO. 1	206	206	206
HARRIS BROS. AND BOONE RESERVOIR NO. 2	49	49	45
HARVEY LAKE	4	4	4
HATCHER RETAINING POND	7	7	7
HYDEAWAY RANCH RESERVOIR	2	2	2
JOE HERSCH RESERVOIR	2	2	2
PAGOSA RESERVOIR	25	25	25
SUNSET COTTAGES RESERVOIR NO. 1	18	18	18
SUNSET COTTAGES RESERVOIR NO. 2	0	0	0
THOMAS RESERVOIR	56	56	56
TOWN OF PAGOSA RESERVOIR	1	1	1
VALLE SECO RESERVOIR	1	1	1
WILSONS LAKE	7	7	7
TOTALS	2,668	2,671	2,363

DISTRICT 30			
ANDREWS LAKE	120	131	131
CASCADE RESERVOIR	2,373	23,385	20,332
CASCADE RESERVOIR NO. 3	30	95	95
CLIFTY LODGE RESERVOIR	1	1	1
DURANGO REGULATORY	227	227	227
FLORIDA CANAL AND RESERVOIR (PASTORIUS)	200	200	200
GREGG RESERVOIR	2	2	2
HAVILAND LAKE RESERVOIR	210	220	220
HENDERSON LAKE	51	58	58
HOTTER BROTHERS LAKE	39	39	39
ICE LAKE RESERVOIR	403	416	416
JOHNSON RESERVOIR	450	1,000	1,000
JOHANSING-VINNEL FISH RESERVOIR	4	4	4
KEELER RESERVOIR	488	488	488
LAKE CAROL	8	8	8
LAKE OF THE PINES	0	114	114
LAKE SUSAN	17	17	17
LEMON RESERVOIR	25,000	40,264	31,782
L-U LAKES	3	3	3

III G. RESERVOIR STORAGE IN ACRE FEET

I.Y.E. 1981-1982

DISTRICT 30 (continued)	BEGINNING OF SEASON	MAXIMUM	END OF SEASON
MACY RESERVOIR	0	11	0
NAEGELIN LAKE	430	565	550
PATRICIA A. SHERWOOD RESERVOIR	4	4	4
SHORT RESERVOIR	0	0	0
TAMARRON LAKE NO. 1	36	36	10
TURNER PUMP STATION AND PONDS	0	84	60
TURNER RESERVOIR	425	473	435
WARNER RESERVOIRS NO. 1 THRU NO. 8	47	47	47
TOTALS	30,568	67,892	56,243
DISTRICT 31			
BELLFLOWER RETENTION RESERVOIR	15	20	15
FITZGERALD IRRIGATION SYSTEM	5	11	5
FREDERICK RESERVOIR NO. 2	3	3	3
HAYDEN CREEK CAMPGROUND NO. 1	2	2	1
JEFFRIES POND NO. 1	1	1	1
JEFFRIES POND NO. 2	2	3	3
MARK E. TAYLOR RESERVOIR	5	5	5
PINE SPRINGS RANCH RESERVOIR NO. 1	1	1	1
VALLECITO RESERVOIR	53,193	123,081	93,613
WILDORADO RESERVOIR NO. 26	14	14	14
WOMMER RESERVOIR NO. 1	78	186	148
TOTALS	53,319	123,327	93,809
DISTRICT 32			
A M PUETT RESERVOIR	377	2,114	911
BUTTS RESERVOIR	18	18	18
DUCKS NEST RESERVOIR	28	41	12
LIVELY RESERVOIR	15	15	15
MARGWAIN STORAGE RESERVOIR	0	0	0
MERRIT POND	41	41	41
NARRAGUINNEP RESERVOIR	16,155	18,960	12,358
ROBERT LEIGHTON RESERVOIR	34	34	34
TOTTEN RESERVOIR	1,755	3,302	1,856
WEST RESERVOIR	6	6	6
WILKERSON POND NO. 1	11	11	11
TOTALS	18,440	24,542	15,262
DISTRICT 33			
RED MESA WARD RESERVOIR	240	1,176	669
TAYLOR RESERVOIR	86	86	86
TOTALS	326	1,262	755

III G. RESERVOIR STORAGE IN ACRE FEET

I.Y.E. 1981-1982

DISTRICT 34	BEGINNING OF SEASON	MAXIMUM	END OF SEASON
BAUER RESERVOIR NO. 1	54	357	177
BAUER RESERVOIR NO. 2	379	1,532	1,239
COPPINGER RESERVOIR NO. 1	9	35	32
COPPINGER RESERVOIR NO. 2	2	14	8
JACKSON GULCH RESERVOIR	4,882	9,980	5,666
L A BAR RESERVOIR	5	73	14
SELLARS & MC CLANE RESERVOIR	12	52	17
SPENCER RESERVOIR	15	15	15
WEBER RESERVOIR	123	442	337
TOTALS	5,481	12,500	7,505
DISTRICT 69			
BELMAR LAKE RESERVOIR	326	408	273
DUNHAM RESERVOIR	69	78	78
GARDNER RESERVOIR	37	37	37
MORRISON RESERVOIR	95	116	116
NORTH DRAW RESERVOIR	0	14	14
TOTALS	527	653	518
DISTRICT 71			
BIG PINE RESERVOIR	407	460	209
BUCK PASTURE RESERVOIR	42	53	53
ETHEL BELMAR RESERVOIR	40	87	87
GROUNDHOG RESERVOIR	2,440	20,397	15,006
LOST CANYON RESERVOIR	86	106	106
R. B. COPPINGER RESERVOIR	0	16	16
SUMMIT RESERVOIR	600	4,795	1,852
TOTALS	3,615	25,914	17,329
DISTRICT 77			
GARDNER LAKE	15	15	15
SAPPINGTON RESERVOIR	0	500	450
SPENCE RESERVOIR	441	441	441
THREE LAKES RESERVOIR	10	10	10
TOTALS	466	966	916
DISTRICT 78			
DEVIL RESERVOIR	8	8	8
DUNNAGAN RESERVOIR	94	94	56
G.S. HATCHER RESERVOIR	1,260	1,735	1,505

III G. RESERVOIR STORAGE IN ACRE FEET

I.Y.E. 1981-1982

DISTRICT 78 (continued)	BEGINNING OF SEASON	MAXIMUM	END OF SEASON
LAKE FOREST RESERVOIR	400	400	400
J BAR J POND	8	8	8
LINN AND CLARK RESERVOIR	997	997	997
O'CONNELL LAKE	42	42	42
PIEDRA RETAINING POND	5	5	5
PALISADE LAKE	50	50	50
PARGIN RESERVOIR	530	530	530
PINION LAKE RESERVOIR	162	162	162
POMA RESERVOIR	27	27	27
SCHMIEDEN RESERVOIR	36	36	36
SPRING CREEK RESERVOIR	0	46	12
STEVENS RESERVOIR AND DAM	635	635	635
TOWN CENTER LAKE RESERVOIR	400	600	600
WILLIAMS CREEK RESERVOIR	10,084	10,084	10,084
TOTALS	14,778	15,459	15,057

IV. AGRICULTURE

Irrigated agriculture production was above normal for the Division. A heavy snow pack, adequate storage, and summer rains, combined with a long growing season to produce an exceptional harvest. Hay production did suffer to some extent as a result of heavy rains during August and September which prevented harvest and caused damage to many fields that were wet.

Representative crop yields are listed below. These figures are based on best estimates since the formal crop reports will not be completed for some time.

CROP	YIELD/ACRE 1982	NORMAL YIELD/ACRE
Irrigated wheat	75 bushels	60 bushels
Dryland wheat	20 bushels	15 bushels
Irrigated barley	75 bushels	50 bushels
Dryland barley	20 bushels	20 bushels
Irrigated corn silage	25 tons	20 tons
Irrigated hay	3-1/2 tons	2-1/2 tons
Dry land beans	500 lbs.	300 lbs.

V. COMPACTS

A. GENERAL

Irrigation Division 7 is included in four interstate compacts. They are: the Colorado River Compact, the Upper Colorado River Basin Compact, the La Plata River Compact, and the Animas-La Plata Project.

B. SAN JUAN-CHAMA PROJECT

The past season allowed for 119,010 acre feet of diversion through the San Juan-Chama Project bringing the total diversion since completion of the Project (1971) to 1,150,000 A.F. with the ten-year average being 99,200 A.F., which is less than the 135,000 A.F. ten-year average limitation set forth in the authorizing legislation.

SAN JUAN-CHAMA PROJECT (continued)

Heron Reservoir was filled on July 1, 1982 and diversions since that time have been limited to water that the U.S.B.R. has contracts for or replacement of storage due to evaporation. This has resulted in a situation where the diversions have been turned on for a short period of time and then shut off again. Users in Colorado down stream have complained about the radical change in flow in the stream and the effects it is having upon their diversion dams. This problem has been discussed with the Bureau of Reclamation and will be the subject of a meeting to be held in the Spring.

For the first time since the Project was complete the bypass records computed by the U.S.B.R. agree with those compiled by the Division 7 staff. Both agencies met and worked the records together. There was a difference of opinion in what measurements to shift, and therefore, more detailed notes at the time of measurement are to be taken. Presently all stream gaging measurements are being made by our staff and the U.S.B.R. are meeting the bypass requirements.

C. LA PLATA RIVER COMPACT

The past irrigation season resulted in an above-normal water supply for the La Plata River. The April through September runoff forecast for Hesperus was 128% of normal with the actual flow being 30,250 A.F. which resulted in 10,659 acres being irrigated with the duty of water being 3.18 A.F./acre. Some of the lands only received one irrigation, however this resulted in good hay and spring grain production.

New Mexico requested the delivery of 98 c.f.s. on May 3, 1982 and on May 24, 1982 it was agreed by the water users in New Mexico that 75 c.f.s. was adequate to meet their seasonal demands and hence, from that time forward New Mexico received 75 c.f.s. or 1/2 of Hesperus flow per the Compact. During August and September, rain occurred allowing for a decreased demand by both Colorado and New Mexico users.

A monthly summary of flows for the Compact are tabulated on the following table V. C. (1).

V. C.1 LA PLATA RIVER COMPACT MONTHLY SUMMARY IN ACRE FEET

MONTH	HESPERUS STATION	LA PLATA & CHERRY CR. DITCH	PINE RIDGE DITCH	HESPERUS TOTAL	STATE LINE STATION	ENTERPRISE DITCH (N. MEX.)	PIONEER DITCH	DELIVERED STATE LINE TOTAL	REQUIRED DELIVERY 1/2 HESPERUS TOTAL
DECEMBER 1981	492			492	751			751	
JANUARY 1982	395			560	560			560	
FEBRUARY	340			340	653			653	
MARCH	653	0	0	653	2,130	0	0	2,130	0
APRIL	3,670	0	559	4,230	4,130	0	1	4,130	0
MAY	10,000	50	745	10,800	5,450	190	168	5,810	4,010[1/]
JUNE	9,020	1,850	808	11,680	4,410	146	209	4,760	4,440
JULY	2,220	1,150	39	3,140	1,650	158	178	1,990	1,800
AUGUST	2,970	399	101	3,470	1,730	124	108	1,960[2/]	1,500
SEPTEMBER	2,370	2	18	2,390	1,140	45	48	1,230[2/]	1,040
OCTOBER	940	0	0	940	748	0	46	794	484
NOVEMBER	555	0	0	555	630	0	0	630	289
TOTALS	33,625	3,451	2,270	39,355	23,982	663	758	25,398	13,563

1/ New Mexico requested 90 c.f.s. May 3, 1982 and on May 24, 1982 the amount determined to be needed for season demands and beneficial use in New Mexico was agreed at 75 c.f.s.

2/ High flows below Hesperus gage as a result of rain occurred in August and September

VI. DAMS

A. GENERAL

There has been only one reservoir built of large capacity during the past year. That was Duncan Reservoir located on Purgatorie Creek. The capacity of the reservoir is 60 A.F. and it will be used to store water for snow making purposes at the Purgatorie Ski slopes.

There is ongoing construction of McPhee Reservoir which is being built under the supervision of the U.S.B.R. and is part of the Dolores Reclamation Project. To date the outlet works, gate tower, and spillway have been completed. The core trench and zone earth fill is approximately 20% completed.

B. LIVESTOCK WATER TANKS

There were 22 permits issued for livestock water tanks and/or erosion control dams this year. This compares with sixteen permits issued for the previous year. The Soil Conservation Service supervises the construction of all dams that fall in these categories.

VIII. WATER RIGHTS

A. TABULATION

There have been no formal objections filed against our most recent tabulation, and unless the law is amended or changed we will be moving towards decree in July of 1983.

Presently all new water rights are being tabulated for inclusion. There could be an improvement in the tabulation by allowing for a method to keep diligence data. Recently the Supreme Court ruled that diligence has to be site specific and the courts are being very strict on what constitutes diligence for a conditional water right. It would be quite helpful for the tabulation to reflect when diligence was last shown, not only for the division staff, but for the public as well.

A table of water rights filed, and referee's findings and decrees is on the following page.

VII. WATER RIGHTS

B. REFEREE'S FINDINGS AND DECREES

	NO. FILED	INVESTIGATED BY DIVISION VII	REFEREE RULINGS	COURT DECREES
1. Underground Water Rights	38	51	32	29
2. Change of Water Rights	18	17	1	19
3. Plans of Augmentation	4	4	3	4
4. Surface Water Rights	76	65	70	76
5. Due Diligence:				
Quadriennial Findings	27	19	17	19
Conditional Made Absolute	15	15	6	8
6. Water Storage Rights	12	12	8	3
TOTALS	190	183	137	158

Denied - 6

VIII. ORGANIZATIONS

A. WATER CONSERVATION AND CONSERVANCY DISTRICTS

NAME	ADDRESS	ATTORNEY	PRESIDENT
Animas-La Plata Conservancy	Box 1157, Durango	L. W. McDaniel	John Murphy
La Plata Water Conservation	Box 497, Durango	F. S. Maynes	Bob K. Taylor
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		Noland Alexander
Pine River Irrigation Dist.	843 Main, Durango	Robert Duthie	Frank Wommer, Jr.
San Miguel Water Conservancy	Box 497, Durango	F. S. Maynes	W. E. Bray
Southwest Water Conservation	Box 497, Durango	F. S. Maynes	Fred Kroeger

VIII. B. INCORPORATED DITCH COMPANIES

NAME	OFFICER	ADDRESS
DISTRICT 29		
Echo Ditch Company	William Jackson, Pres.	Pagosa Springs, Colorado
Park Ditch Company	Robert Formwalt, Pres.	Pagosa Springs, Colorado
DISTRICT 30		
Animas Ditch Company	R. J. Bonds	3237 U.S. Hiway 550, Durango
Animas Consolidated Ditch Co.	Lois Hood, Sec. (247-0859)	32446 Hiway 550, Durango
Florida Canal Company	T. G. Eggleston	135 Riverview Dr., Durango
Florida Farmers Ditch Co.	Hazel Brown	505 C.R. 234, Durango
Hermosa Ditch Company	Lois Hood, Sec.	32446 Hiway 550, Durango
Pioneer Ditch Company	Marjorie Hurt	383 C.R. 225, Durango
Reid Ditch	Althea Knowlton, Sec. (247-0275)	
	Animas Valley Ditch Company	4315 C. R. 250, Durango
DISTRICT 31		
King Ditch Company	John Olbert, Sec.	1728 C. R. 501, Ignacio
Los Pinos Ditch Company	Mrs. J.C. Mars	1968 C.R. 526, Bayfield
Robert Morrison Ditch Company	Rex Richmond, Sec.	399 C.R. 315, Ignacio
*Schroder Irrigation Ditch Co.	Jim & Jean Sitton, Sec.	40644 Hiway 160, Bayfield
Spring Creek Ditch (Pine River	David Sullivan, Sec.	Rt. 2, Ignacio
Canal Co. & Spring Cr. Ext.)	Kenneth Seibel, Sec.	Rt. 2, Ignacio
Sullivan Ditch Company	Ruby Bowers, Sec.	520 C.R. 505, Ignacio
Thompson-Epperson Ditch Co.	Wayne Johnson, Sec.	38717 U.S. Hiway 160, Bayfield
Vallecito Reservoir (Pine River		
Irrigation District)	Steve Newman, Supt.	277 Vallecito Rd., Bayfield
*(Pine River-Bayfield Ditch lateral or split)		
DISTRICT 32		
Montezuma Valley Irrigation Co.	Les Nunn, Supt.	Cortez, Colorado
DISTRICT 33		
Big Stick Ditch Co.	Grant Paulek	Hesperus, Colorado
Hay Gulch Ditch Co.	Lawrence Huntington	Hesperus, Colorado
H. H. Ditch Company	Bob Willis	Hesperus, Colorado
Joseph Freed Ditch Co.	Nancy Price	Hesperus, Colorado
La Plata River & Cherry Creek		
Ditch Company	Georgia Patcheck	Mancos, Colorado
Lightner Canal Company	V. A. Paulek	Hesperus, Colorado
Pine Ridge Ditch Company	Colo. Div. of Wildlife	Durango, Colorado
Red Mesa-Ward Reservoir &		
Ditch Supply Company	Nancy Price	Hesperus, Colorado
Reorganized Revival Ditch Co.	Lila Greer	Hesperus, Colorado
Slade Ditch Company	Judy Albrecht	Hesperus, Colorado
Townsite Ditch Company	Judy Albrecht	Hesperus, Colorado
Treanor Enterprise Ditch Co.	Ruth Candelaria	Marvel, Colorado
DISTRICT 34		
Bauer Lakes Water Company	Leroy Everett	Mancos, Colorado
Ratliff & Root Ditch Company	Lloyd Doerfer	Mancos, Colorado
Town of Mancos Ditch Company	Grace McWhirt	Mancos, Colorado
Webber Ditch Company	Lloyd Doerfer	Mancos, Colorado
Webber Reservoir & Ditch Co.	Perry Lewis	Mancos, Colorado
C - C Ditch Company	Dr. Robert Bement	Mancos, Colorado
DISTRICT 71		
Groundhog Reservoir & Beaver		
Ditch System	Les Nunn, Supt.	Cortez, Colorado
Montezuma Valley Irrigation Dist.	Les Nunn, Supt.	Cortez, Colorado
Summit Irrigation System	Eddie McRea	Dolores, Colorado
DISTRICT 78		
Piedra Falls Ditch Company	Louis Beecherl, Pres.	Pagosa Springs, Colorado

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 29

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		61,010
STORAGE		395
STOCKWATER		6,945
MUNICIPAL		1,906
DOMESTIC		428
INDUSTRIAL		
RECREATIONAL		
FISH		1,204
OTHER: GEOTHERMAL		847
TRANSMOUNTAIN-TRANSBASIN		3,208
INTERSTATE		49,632
	TOTAL DIVERSIONS	125 575
DELIVERIES FROM STORAGE:		
IRRIGATION		301
DOMESTIC		
MUNICIPAL		
STOCK		
INDUSTRIAL		
RECREATIONAL FISH		347
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	648
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	0
DUTY OF WATER:		
TOTAL TO IRRIGATION		61,311
ACRES IRRIGATED		13,945
ACRE FEET DIVERTED PER ACRE		4.40
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		5
ACTIVE DIVERSIONS - DAILY		163
INFREQUENT		78
INACTIVE DIVERSIONS - NO WATER AVAILABLE		0
NOT USED		33
NO INFORMATION AVAILABLE		5
NUMBER OF DITCHES		226
NUMBER OF RESERVOIRS		36
NUMBER OF WELLS		41
NUMBER OF OBSERVATIONS		4,551

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 30

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		124,837
STORAGE		35,455
STOCKWATER		22,048
MUNICIPAL		4,969
DOMESTIC		246
INDUSTRIAL		18,248
RECREATIONAL		789
FISH		7,901
OTHER:		158
TRANSMOUNTAIN-TRANSBASIN		526
INTERSTATE		10,549
COMMERCIAL		679
	TOTAL DIVERSIONS	226,405
DELIVERIES FROM STORAGE:		
IRRIGATION		11,641
DOMESTIC		2
MUNICIPAL		
STOCK		
INDUSTRIAL		19,372
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		175
	TOTAL FROM STORAGE	31,190
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		559
MUNICIPAL		
	TOTAL FROM TRANSBASIN	559
DUTY OF WATER:		
TOTAL TO IRRIGATION		136,478
ACRES IRRIGATED		34,442
ACRE FEET DIVERTED PER ACRE		3.96
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		9
ACTIVE DIVERSIONS - DAILY		221
INFREQUENT		438
INACTIVE DIVERSIONS - NO WATER AVAILABLE		15
NOT USED		198
NO INFORMATION AVAILABLE		7
NUMBER OF DITCHES		530
NUMBER OF RESERVOIRS		47
NUMBER OF WELLS		279
NUMBER OF OBSERVATIONS		8,014

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 31

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		195,858
STORAGE		98,850
STOCKWATER		5,814
MUNICIPAL		630
DOMESTIC		16
INDUSTRIAL		
RECREATIONAL		18
FISH		1,066
OTHER:		
TRANSMOUNTAIN-TRANSBASIN		2,194
INTERSTATE		
	TOTAL DIVERSIONS	304,446
DELIVERIES FROM STORAGE:		
IRRIGATION		30,967
DOMESTIC		27
MUNICIPAL		155
STOCK		153
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	31,302
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	0
DUTY OF WATER:		
TOTAL TO IRRIGATION		226,825
ACRES IRRIGATED		56,717
ACRE FEET DIVERTED PER ACRE		4.00
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		0
ACTIVE DIVERSIONS - DAILY		131
INFREQUENT		195
INACTIVE DIVERSIONS - NO WATER AVAILABLE		0
NOT USED		62
NO INFORMATION AVAILABLE		0
NUMBER OF DITCHES		250
NUMBER OF RESERVOIRS		15
NUMBER OF WELLS		101
NUMBER OF OBSERVATIONS		12,145

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 32

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		43,319
STORAGE		78
STOCKWATER		14
MUNICIPAL		0
DOMESTIC		152
INDUSTRIAL		4
RECREATIONAL		0
FISH		0
OTHER: COMMERCIAL		3
TRANSMOUNTAIN-TRANSBASIN		
INTERSTATE		
	TOTAL DIVERSIONS	43,570
DELIVERIES FROM STORAGE:		
IRRIGATION		13,154
DOMESTIC		
MUNICIPAL		
STOCK		1,188
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		1
	TOTAL FROM STORAGE	14,343
DELIVERIES FROM TRANSBASIN:		
STOCK		4,019
IRRIGATION		118,142
STORAGE		12 800
MUNICIPAL		3,768
	TOTAL FROM TRANSBASIN	138,729
DUTY OF WATER:		
TOTAL TO IRRIGATION		174,615
ACRES IRRIGATED		45,587
ACRE FEET DIVERTED PER ACRE		3.83
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		2
ACTIVE DIVERSIONS - DAILY		165
INFREQUENT		60
INACTIVE DIVERSIONS - NO WATER AVAILABLE		4
NOT USED		34
NO INFORMATION AVAILABLE		1
NUMBER OF DITCHES		216
NUMBER OF RESERVOIRS		12
NUMBER OF WELLS		17
NUMBER OF OBSERVATIONS		3,726

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 33

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		33,051
STORAGE		1,525
STOCKWATER		4,170
MUNICIPAL		
DOMESTIC		34
INDUSTRIAL		
RECREATIONAL		
FISH		
OTHER:		
TRANSMOUNTAIN-TRANSBASIN		559
INTERSTATE		1,421
	TOTAL DIVERSIONS	40,760
DELIVERIES FROM STORAGE:		
IRRIGATION		890
DOMESTIC		
MUNICIPAL		
STOCK		6
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	896
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	0
DUTY OF WATER:		
TOTAL TO IRRIGATION		33,941
ACRES IRRIGATED		10,659
ACRE FEET DIVERTED PER ACRE		3.18
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		0
ACTIVE DIVERSIONS - DAILY		52
INFREQUENT		68
INACTIVE DIVERSIONS - NO WATER AVAILABLE		1
NOT USED		17
NO INFORMATION AVAILABLE		13
NUMBER OF DITCHES		105
NUMBER OF RESERVOIRS		12
NUMBER OF WELLS		24
NUMBER OF OBSERVATIONS		4,277

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 34

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		36,903
STORAGE		17,105
STOCKWATER		4,776
MUNICIPAL		874
DOMESTIC		13
INDUSTRIAL		
RECREATIONAL		
FISH		
OTHER: COMMERCIAL		3
TRANSMOUNTAIN-TRANSBASIN		
INTERSTATE		
	TOTAL DIVERSIONS	59,674
DELIVERIES FROM STORAGE:		
IRRIGATION		6,006
DOMESTIC		
MUNICIPAL		
STOCK		344
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		6
	TOTAL FROM STORAGE	6,356
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		757
STORAGE		18
MUNICIPAL		
	TOTAL FROM TRANSBASIN	775
DUTY OF WATER:		
TOTAL TO IRRIGATION		42,909
ACRES IRRIGATED		14,923
ACRE FEET DIVERTED PER ACRE		2.88
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		4
ACTIVE DIVERSIONS - DAILY		75
INFREQUENT		20
INACTIVE DIVERSIONS - NO WATER AVAILABLE		0
NOT USED		14
NO INFORMATION AVAILABLE		0
NUMBER OF DITCHES		88
NUMBER OF RESERVOIRS		9
NUMBER OF WELLS		8
NUMBER OF OBSERVATIONS		902

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 46

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		5,684
STORAGE		
STOCKWATER		1
MUNICIPAL		
DOMESTIC		
INDUSTRIAL		
RECREATIONAL		465
FISH		
OTHER:		
TRANSMOUNTAIN-TRANSBASIN		
INTERSTATE		
	TOTAL DIVERSIONS	6,150
DELIVERIES FROM STORAGE:		
IRRIGATION		
DOMESTIC		
MUNICIPAL		
STOCK		
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	0
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	0
DUTY OF WATER:		
TOTAL TO IRRIGATION		5,684
ACRES IRRIGATED		1,768
ACRE FEET DIVERTED PER ACRE		3.21
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		0
ACTIVE DIVERSIONS - DAILY		34
INFREQUENT		2
INACTIVE DIVERSIONS - NO WATER AVAILABLE		0
NOT USED		0
NO INFORMATION AVAILABLE		0
NUMBER OF DITCHES		37
NUMBER OF RESERVOIRS		1
NUMBER OF WELLS		0
NUMBER OF OBSERVATIONS		1,913

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 69

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		3,523
STORAGE		170
STOCKWATER		
MUNICIPAL		
DOMESTIC		1
INDUSTRIAL		
RECREATIONAL		
FISH		
OTHER:		
TRANSMOUNTAIN-TRANSBASIN		
INTERSTATE		
	TOTAL DIVERSIONS	3,694
DELIVERIES FROM STORAGE:		
IRRIGATION		242
DOMESTIC		
MUNICIPAL		
STOCK		
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	242
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	
DUTY OF WATER:		
TOTAL TO IRRIGATION		3,765
ACRES IRRIGATED		1,533
ACRE FEET DIVERTED PER ACRE		2.46

NUMBER OF STRUCTURES OBSERVED:

WATER RUN - NO INFORMATION AVAILABLE	0
ACTIVE DIVERSIONS - DAILY	23
INFREQUENT	5
INACTIVE DIVERSIONS - NO WATER AVAILABLE	1
NOT USED	15
NO INFORMATION AVAILABLE	0
NUMBER OF DITCHES	23
NUMBER OF RESERVOIRS	5
NUMBER OF WELLS	1
NUMBER OF OBSERVATIONS	167

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 71

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		6,813
STORAGE		24,082
STOCKWATER		7
MUNICIPAL		1,390
DOMESTIC		27
INDUSTRIAL		805
RECREATIONAL		
FISH		
OTHER:		6
TRANSMOUNTAIN-TRANSBASIN		137,006
INTERSTATE		
	TOTAL DIVERSIONS	170,136
DELIVERIES FROM STORAGE:		
IRRIGATION		90
DOMESTIC		
MUNICIPAL		
STOCK		
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		10,083
OTHER:		
	TOTAL FROM STORAGE	10,173
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		
STORAGE		
MUNICIPAL		
	TOTAL FROM TRANSBASIN	
DUTY OF WATER:		
TOTAL TO IRRIGATION		6,903
ACRES IRRIGATED		2,046
ACRE FEET DIVERTED PER ACRE		3.37
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		0
ACTIVE DIVERSIONS - DAILY		56
INFREQUENT		92
INACTIVE DIVERSIONS - NO WATER AVAILABLE		1
NOT USED		40
NO INFORMATION AVAILABLE		22
NUMBER OF DITCHES		116
NUMBER OF RESERVOIRS		8
NUMBER OF WELLS		39
NUMBER OF OBSERVATIONS		1,527

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 77

		ACRE FEET
DIRECT DIVERSIONS:		
IRRIGATION		22,139
STORAGE		172
STOCKWATER		336
MUNICIPAL		
DOMESTIC		3
INDUSTRIAL		1
RECREATIONAL		
FISH		6,995
OTHER:		
TRANSMOUNTAIN-TRANSBASIN		
INTERSTATE		73,034
	TOTAL DIVERSIONS	102,680
DELIVERIES FROM STORAGE:		
IRRIGATION		330
DOMESTIC		
MUNICIPAL		
STOCK		
INDUSTRIAL		
RECREATIONAL		
TRANSBASIN-TRANSMOUNTAIN		
OTHER:		
	TOTAL FROM STORAGE	330
DELIVERIES FROM TRANSBASIN:		
IRRIGATION		549
STORAGE		140
MUNICIPAL		
	TOTAL FROM TRANSBASIN	689
DUTY OF WATER:		
TOTAL TO IRRIGATION		23,018
ACRES IRRIGATED		3,837
ACRE FEET DIVERTED PER ACRE		6.00
NUMBER OF STRUCTURES OBSERVED:		
WATER RUN - NO INFORMATION AVAILABLE		0
ACTIVE DIVERSIONS - DAILY		60
INFREQUENT		21
INACTIVE DIVERSIONS - NO WATER AVAILABLE		0
NOT USED		15
NO INFORMATION AVAILABLE		0
NUMBER OF DITCHES		83
NUMBER OF RESERVOIRS		17
NUMBER OF WELLS		30
NUMBER OF OBSERVATIONS		1,526

IX. WATER COMMISSIONER'S SUMMARY

WATER DISTRICT 78

		ACRE FEET
DIRECT DIVERSIONS:		
	IRRIGATION	28,774
	STORAGE	1,481
	STOCKWATER	649
	MUNICIPAL	230
	DOMESTIC	28
	INDUSTRIAL	
	RECREATIONAL	
	FISH	2,101
	OTHER: COMMERCIAL	132
	TRANSMOUNTAIN-TRANSBASIN	352
	INTERSTATE	
	TOTAL DIVERSIONS	33 747
DELIVERIES FROM STORAGE:		
	IRRIGATION	541
	DOMESTIC	
	MUNICIPAL	
	STOCK	
	INDUSTRIAL	
	RECREATIONAL	
	TRANSBASIN-TRANSMOUNTAIN	
	OTHER:	
	TOTAL FROM STORAGE	541
DELIVERIES FROM TRANSBASIN:		
	IRRIGATION	
	STORAGE	863
	MUNICIPAL	
	TOTAL FROM TRANSBASIN	863
DUTY OF WATER:		
	TOTAL TO IRRIGATION	29,315
	ACRES IRRIGATED	8 232
	ACRE FEET DIVERTED PER ACRE	3.56
NUMBER OF STRUCTURES OBSERVED:		
	WATER RUN - NO INFORMATION AVAILABLE	0
	ACTIVE DIVERSIONS - DAILY	70
	INFREQUENT	42
	INACTIVE DIVERSIONS - NO WATER AVAILABLE	3
	NOT USED	23
	NO INFORMATION AVAILABLE	3
	NUMBER OF DITCHES	132
	NUMBER OF RESERVOIRS	20
	NUMBER OF WELLS	13
	NUMBER OF OBSERVATIONS	1,878

X. A. DIVISION ENGINEER'S SUMMARY

I.Y. 1981-1982

DIRECT FLOW DIVERSIONS
TOTAL AMOUNTS IN ACRE FEET USED

W.D.	IRR.[1]	ACRES IRR.	A.F./ACRE	STOCK	MUN.	DOM.	IND.	REC.	FISH	COMM.	GEO THERMAL	TRANS. MTN.[2]	TRANS. BASIN[3]	COMPACT	OTHER	STORAGE
29	61,311	13,945	4.40	6,945	1,906	428			1,204		847	388	3,208	49,632[4]		395
30	136,478	34,442	3.96	22,048	4,969	246	18,248	789	7,901	679		526		10,549[5]	158	35,455
31	226,825	56,717	4.00	5,814	630	16		18	1,066			2,194				98,850
32	174,615	45,587	3.83	14		152	4			3						78
33	33,941	10,659	3.18	4,176		34							559	1,421[6]		1,525
34	42,909	14,923	2.88	4,776	874	13										
46	5,684	1,768	3.21	1				465		3						
69	3,765	1,533	2.46			1										170
71	6,903	2,046	3.37	7	1,390	27	805						147,089[7]		6	24,082
77	23,018	3,837	6.00	336		3	1		6,995					73,034[8]		172
78	29,315	8,232	3.56	649	230	28			2,101	132		352				1,481
TOTALS	744,764	193,689	3.85	44,766	9,999	948	19,058	1,272	19,267	818	847	3,460	150,856	134,636	164	162,208

1/ Includes water delivered directly plus storage and/or transbasin.
2/ Diverted out of Division 7 to other irrigation divisions.
3/ Diverted between water districts but remained in Division 7.
4/ Delivered to New Mexico thru San Juan Chama Project - Blanco Tunnel.
5/ Water diverted in Colorado but used in New Mexico for agriculture purposes.
6/ Diverted to New Mexico through Colorado ditches per La Plata Compact.
7/ Used in District 32 under M.V.I. and Summit Systems.
8/ Delivered to New Mexico through San Juan Chama Project - Oso Tunnel.

X. B. DIVISION ENGINEER'S SUMMARY

I.Y. 1981-1982

STORAGE IN ACRE FEET

W.D.	(STORAGE) BEGINNING OF SEASON	MAXIMUM	END OF SEASON	INCREASE DURING SEASON	DECREASE DURING SEASON [1]	NET CHANGE FOR SEASON	(DELIVERED FROM STORAGE [2]) IRR.	DOM.	MUN.	IND.	COMM.	STOCK	TRANS-BASIN/ TRANS-MNTN.	OTHER [3]	FISH
29	2,668	2,671	2,363	3	308	-305	301								347
30	30,568	67,892	56,243	37,324	11,649	25,675	11,641	2		19,372				175	
31	53,319	123,327	93,809	70,008	29,518	40,490	30,967	27	155			153			
[illegible]	18,440	24,542	15,262	6,102	9,280	-3,178	13,154					1,188		1	
33	326	1,262	755	936	507	429	890					6			
34	5,481	12,500	7,505	7,019	4,995	2,024	6,006					344		6	
46	0	0	0	0	0	0	0	0	0	0		0		0	
69	527	653	518	126	135	-9	242								
71	3,615	25,914	17,329	22,299	8,585	13,714	90						10,083		
77	466	966	916	500	50	450	330								
78	14,778	15,459	15,057	681	402	279	541								
[illegible]TALS	130,188	275,186	209,757	144,998	65,429	79,569	64,162	29	155	19,372		1,691	10,083	182	347

1/ Decrease in storage will not equal total deliveries from storage as a result of evaporation and leakage losses.

2/ Amount delivered from storage is based on diversion records at the diversion heading.

3/ Includes losses in storage due to evaporation and seepage.

X. C. DIVISION ENGINEER'S SUMMARY

WORKLOAD AND STATISTICAL INDICATORS

I.Y. 1981-1982

W.D.	(TOTAL DITCHES REPORTED) ACTIVE USED-NR	ACTIVE DAILY	ACTIVE INFREQUENT	INACTIVE NA	INACTIVE NI	INACTIVE NU	NUMBER OF OBSERVATIONS	DECREED NUMBER OF WELLS	NUMBER OF RESERVOIRS	NUMBER OF DITCHES	TOTAL NUMBER OF STRUCTURES
29	5	163	78	0	5	33	4,551	41	36	226	303
30	9	221	438	15	7	198	8,014	279	47	530	856
31	0	131	195	0	0	62	12,145	101	15	250	366
32	2	165	60	4	1	34	3,726	17	12	216	245
33	0	52	68	1	13	17	4,277	24	12	105	141
34	4	75	20	0	0	14	902	8	9	88	105
46	0	34	2	0	0	0	1,913	0	1	37	38
69	0	23	5	1	0	15	167	1	5	23	29
71	0	56	92	1	22	40	1,527	39	8	116	163
77	0	60	21	0	0	15	1,526	30	17	83	130
78	0	70	42	3	3	23	1,878	13	20	132	165
TOTALS	20	1,050	1,021	25	51	451	40,626	553	182	1,806	2,541

NA - No Water Available NU - Non Use NR - No Report NI - No Information

ANNUAL SUMMARY - DIVISIONS

ACRE FEET (11-1-81 thru 10-31-82)

Divisions	Non-Exempt Wells #	Ditch Structures Reported #	IRRIGATION Direct Diversions To Irrigation	IRRIGATION Diversions To Storage	IRRIGATION Storage To Irrigation	CURRENT YEAR Acres Irrigated	TRANS-MOUNTAIN Div. to Div. Export	TRANS-MOUNTAIN Div. to Div. Import	TRANS-STAT EXPORT
1									
2									
3									
4									
5									
6									
7						193,689	3,460	0	134,636
TOTAL									

Divisions	MUNICIPAL Direct Diversions	MUNICIPAL Diversions To Storage	MUNICIPAL Storage Releases	INDUSTRIAL Direct Diversions	INDUSTRIAL Diversions To Storage	INDUSTRIAL Hydro-Power	RECREATION Storage-Wildlife Parks	ACTUAL STORAGE For Year All Reservoirs	DECREES	# Water Court Applications
1										
2										
3										
4										
5										
6										
7	9,999		155	810		18,248	20,539	209, 757	158	190
TOTAL										

IX. DIVISION ENGINEER'S CONCLUSIONS AND RECOMMENDATIONS

The past irrigation season was an exceptional water year for irrigated agriculture. There was a steady and adequate supply for the entire irrigation season, resulting in fewer water disputes than normal.

The most difficult situation for the Division was the problem of enforcing the statutes required for administration with inadequate monies budgeted for travel and operating expenses. This placed a heavy burden on the water commissioners, though many were willing to make the effort even if they were not reimbursed for their expenses, consequently, observations and administration were done on a limited basis in accordance with monies available.

The geothermal problem in Pagosa Springs is hopefully being resolved. Through the efforts of the Division of Water Resources, the town of Pagosa Springs, and the geothermal well users, the 1.3 million dollar heating system has been allowed to operate for a winter test period. The tests were allowed provided that limitations be placed on the amount taken through the system (600 g.p.m.), that test data be collected, and that provisions for replacement of heat to wells affected by the city system be made. The test is to be conducted for the winter of 1982-83 and the results reported to the Division of Water Resources. To date the peak usage has been 120 g.p.m. - far less than the 600 g.p.m. limit.

Judge William S. Eakes, Division 7 Water Judge since 1969, retired in November 1982. Judge Eakes was the only remaining water judge left from the original group of judges appointed as a result of the 1969 Act. He was well respected throughout the state and his expertise in water matters was of considerable benefit to Division 7. The Supreme Court appointed Judge Al H. Haas as his replacement. Judge Haas is following Judge Eakes' procedure and is acting as his own referee. This will require that the Division Engineer make a very detailed recommendation to the Court as was the practice under Judge Eakes.

With the ruling in the Colorado State Supreme Court on the Reserved Federal Claims in Divisions 1, 4, 5, and 6, the upcoming year will certainly see progress being made on the Division 7 cases. This will be the only division that has reserved claims on behalf of Indian tribes. Both the Ute Mountain Ute and the Southern Utes have large reservations in the Division. It has been hoped that the Dolores Project and the Animas-La Plata Project would supply enough water to satisfy the Indian needs. However, with the state of the economy of the nation, it is questionable if the Animas-La Plata Project will receive funding this budget year. If funding is not granted, undoubtedly the Indians will begin to litigate their claims.

The Division office has installed a remote computer terminal which is tied to the Fort Lewis College Computer. While this has saved us many man hours in data entry and correction, there are still difficulties with access to the college computer.

In spite of these difficulties, the Assistant Division Engineer, Ken Beegles, has done an outstanding job in preparing the records for entry into the data bank and is to be complimented on his efforts.

The Division staff has done an exceptional job during the past irrigation season even though monies were inadequate for normal travel and operating expenses, and their efforts are appreciated.

Daries C. Lile
Division 7 Engineer

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