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State Engineer

DIVISION OF WATER RESOURCES

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February 4, 1971

Mr. C. J. Kuiper, State Engineer
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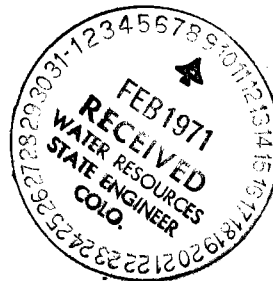
Dear Mr. Kuiper:

Attached herewith is our Annual Report for the 1969 -
1970 Water Year.

Very truly yours,


George E. Barclay
Division Engineer

GEB:aif
Enc.



ANNUAL REPORT
WATER DIVISION VII
1970

PREPARED BY
GEORGE E. BARCLAY
DIVISION ENGINEER
DURANGO, COLORADO

DIVISION ENGINEER'S ANNUAL REPORT

1969 - 1970 WATER YEAR

DIVISION VII

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1970 ANNUAL REPORT

DIVISION VII

DURANGO, COLORADO

EARTH

The geology of southwestern Colorado is dominated by a very large uplifted region in the San Juan Mountains, known as the San Juan dome, and an adjoining down-folded region to the south called the San Juan Basin. Both of these features were formed near the close of the Mesozoic Era as a consequence of the Laramide Orogeny, and are complimentary in nature.

The San Juan dome is exposed northward from Durango and is centered in the Needles-Grenadier Mountains region south of Silverton. Fluvial and glacial erosion of the crest of the uplift has stripped away the sedimentary section, exposing the Precambrian crystalline core of the range. Paleozoic and Mesozoic sedimentary rocks are well exposed along the flanks of the structural dome in the foothills of the San Juan Mountains, and a complete section totaling 17,000 feet of sedimentary rocks is present in the Animas River canyon between Baker's Bridge and Durango.

After denudation of the upland had progressed to a considerable degree, volcanic eruptions in the vicinity of Silverton spread volcanic materials over the top and eastern flank of the uplift in early Tertiary time, masking the underlying geology. The fluids and gasses which accompanied the eruptions were the source of economic mineral deposits in the heart of the uplift. Glacial erosion during Pleistocene time sculptured the range into the alpine upland we see now.

The large structural sag of the San Juan Basin lies south of Durango and extends some fifty miles into northern New Mexico. The prominent hogbacks which lie generally east-west along the southern Colorado border mark the northern edge of the depression. Exposed strata in the Colorado portion of the Basin consist of Late Cretaceous and Tertiary sedimentary rocks which dip basinward, and many of the sandstone layers, such as the Mesa Verde and Pictured Cliffs formations, host large accumulations of natural gas along the northern flank of the basin. The sag formed as the San Juan uplift developed in latest Cretaceous and early Tertiary time, receiving vast quantities of sediments from the erosion of the uplift.

The country northwest of the San Juan Mountains which is drained by the Dolores River system is a part of a complex geologic province known as the Paradox fold and fault belt. The region is underlain by thick deposits of salt of Pennsylvanian age, the Paradox Formation, which flowed upward plastically in late Paleozoic and Mesozoic times, piercing the overlying strata and forming elongate diapiric structures. These "salt anticlines" were rather recently attacked by groundwater solution, removing some of the upper portions of salt in the piercement structures, and causing collapse of the roofs of the structures. The resulting exposures of the collapsed "salt anticlines" form prominent topographic valleys that trend in a northwest - southeast pattern. The Colorado representatives of this system are the Paradox, Gypsum, and Lisbon valleys. A large anticline, the Dolores anticline, parallels the salt-intruded structures and lies to the south. It is a poorly developed salt structure in that it was formed at least partially by salt flowage and thickening under the fold, but the salt did not pierce the overlying strata. Extensions of these structural lineations crop out in the San Juan Mountains superimposed on the general domal structure of that region. The Dolores River crosses each of these salt structures at random, apparently as the result of superposition of the drainage onto the structural features.

MAN

Southwestern Colorado is rich in history. Interspersed with the Ice Age, is evidence of prehistoric animals such as the Bison, Camel and Dinosaur. Although this is in the realm of the Folsom, Sandia, or Clovis Man, no actual evidence to date has been found in this exact locality.

The first evidence of human occupancy of these lands goes to the Indians living in wickiups, then pit-type houses. The tops of these houses were cone-shaped, covered with brush. The approximate age of this occupancy is fixed from 700 to 1000 A.D. The Indians subsisted mainly on roots, berries, seeds, and insects, and what wildlife that could be caught by hand. At about 1000 A.D., corn was introduced from Mexico. This changed the nomadic-type Indian into a more farming type individual. This started the era of the cliff dwelling Indians which occupied areas such as Mesa Verde during the period of 1050 to 1250 A.D. These Indians were divided into two different classes: first

the basket weavers who were identified by their flat heads, probably caused by carrying papoose boards; and second, the Pueblo type Indians occupying pueblos throughout the southwestern part of the United States. Both classes lived in small pueblos and cliff dwellings. The exodus of these Indians was probably brought about by the twenty-three year drought between 1276 to 1299 A.D. This period has been established from tree ring studies.

During the succeeding centuries, nomadic Indians similar to the Utes and Comanches occupied the mountain areas, and Indians similar to the Arapahoe and Cheyenne occupied the plains. The civilization of these Indians was more primitive than the Pueblo or Cliff Dwellers, and livelihood was mainly the killing of buffalo by driving them over cliffs and clubbing them to death. Their bows and arrows were not effective against the thick hides of the buffalo.

The next period of civilization might be classified as the invasion and exploration of the Spanish. There is no evidence that the main Coronado Expedition ever came into the San Juan or Animas Valleys, although there is some evidence that hunting or exploratory forays might have been undertaken. In 1775, Escalante and Garcia passed through southern Archuleta County. At this time, there was a controversy over the hot springs at Pagosa Springs. This was claimed by both the Utes and the Navajos. The ownership was settled by a duel between Colonel Pfeiffer, chosen as the Utes' representative, fighting against a Navajo with a Bowie knife.

During succeeding years until the first visitation by trappers, there were continued wars between the Indians and the Spanish. From all indications, southwestern Colorado was visited by two different trapping companies: Antoine Roubidoux and Julius Lemon were trappers from the Rocky Mountain Fur Company under the guidance of General William Ashley during the period of 1824 to 1825. In 1831, a party of sixty men left St. Louis for Santa Fe; these individuals travelled up to the headwaters of the San Juan, having been hired by the St. Louis Fur Company, and rediscovered the hot springs at Pagosa Springs. During the period of 1846 to 1848, Colorado fairly well established itself due to the Mexican War.

The first modern irrigation in southern Colorado occurred in the 1850's in the San Luis Valley, when forty irrigation ditches were built. This was the first known modern irrigation, although all indications show that when corn was introduced from Mexico, the Pueblo Indians and Cliff Dwellers carried on a prim-

itive type of irrigation.

In 1863, Kit Carson, being hired by the Army, rounded up all the Navajos that could be found and took them to Ft. Sumner in New Mexico. This freed the country from raids by the Indians and opened it up for mining and settlers. The first mining location filed in the southwestern part of Colorado was in Silverton in 1871. The first county seat of La Plata County was at Parrot City, which was located approximately two miles north of old Ft. Lewis, on the La Plata River in 1875.

The first water filing we have in this Division was made on the Animas River on the first of June, 1874, by Charles Chavez. This was for water out of the Animas Ditch.

The Rio Grande Railroad first came to Durango in 1881. Durango was incorporated as a town on August 1, 1881, and the first land office opened in La Plata County in 1882. At that time, land was selling for \$1.25 per acre.

An interesting side note found in history, relates the saga of girls of "shady character" who accompanied the railroad men to Durango. The origin of these "lasses" was a town in New Mexico called Menaro. As the building of the railroad progressed north, they moved to Pagosa Junction. At this location, they were run out of town by the Indians, and subsequently set up new "head-quarters" in Durango.

The first road established between Durango and Silverton was the old toll road built by Otto Mears. This road was first used around 1890. The Million Dollar Highway as it exists now, was first located between 1900 and 1910.

The use of irrigation water has been a gradual expansion from the original filing. In most cases, settlement was first made on the side streams, and later on the main streams throughout this Division.

WATER

Division VII is located within the upper Colorado River basin; our main drainages flow into the San Juan and Dolores Rivers. Starting with the eastern most main drainage, we will name the rivers that are within this Division: Navajo, Blanco, San Juan, Piedra Rivers; Siembritas Creek; the Pine, Florida, Animas and La Plata Rivers; Mc Elmo Creek; the Dolores River; and Disappointment Creek.

The elevation in this basin varies from 14,081 feet to approximately 4,500

feet. Within this Division are the following counties: Archuleta, La Plata, Montezuma, Dolores; fragments of Mineral, Hinsdale, San Juan, and San Miguel. The total population is approximately 39,020. The areas of different land classification are broken down as follows:

Irrigated pasture	51,870 acres
Irrigated farm lands	93,044 acres
Private grazing lands	930,454 acres
Dry farm lands	226,524 acres
Public lands, including Forest Service and waste lands	<u>2,888,691 acres</u>
TOTAL	4,633,815 acres

The total assessed valuation for all assessments including real estate, public utilities, and personal property is \$91,190,448.

The assessed value on irrigated lands vary from \$38.45 in La Plata County to \$23.28 per acre in Dolores County. The value for dry farm lands vary from \$20.98 per acre in Montezuma County to \$10.60 per acre in Archuleta County. On irrigated pasture, the valuation varies from \$17.98 per acre in Montezuma County to \$15.50 per acre in Archuleta County. On grazing land, values varied from \$4.08 per acre in Archuleta County to \$2.86 per acre in La Plata County. Timber valuation on private lands varied from \$0.92 per acre in Dolores County to \$2.24 per acre in La Plata County.

The main industries in this Division would be classed as lumbering, ranching, farming, tourism, and mining. We have tabulated the average annual precipitation and weather from five stations which are: Durango, Ft. Lewis, Silverton, Pagosa Springs, and Cortez. Generally speaking, the summer precipitation comes in the way of rain at all stations, although summer is limited to about one month in Silverton. In the winter time, snow is found at most of the stations, and most of the precipitation at this time of year comes from snow. The average precipitation varies at these stations from 26.64" at Silverton, to 10.16" at Cortez. The maximum precipitation at any station is recorded at 39.57" at Wolf Creek Pass. In all probability, the minimum precipitation is found at the lower end of Mc Elmo Canyon. Temperatures vary from an average of 35.1° at Silverton, to 48.8° at Cortez. The minimum at Silverton would be -25°, and the maximum at Cortez would be 98°.

The major usage of water at the present time in this Division is for irrigation. Within this Division we have three major irrigation projects - the Florida Irrigation District which encompasses 23,745 acres; the Pine River Project which encompasses 36,684 acres; and the Montezuma Valley Irrigation District which is approximately 35,000 acres. There is also the Jackson Lake Reservoir which supplies supplementary water to a number of different ditches within the Mancos River Watershed.

There are two large Bureau of Reclamation projects that have been authorized by Congress, and it is anticipated that construction will begin within the next five years. One of these projects is the Animas-La Plata Project in La Plata County, which has an anticipated acreage of 55,420 acres, of which 20,100 acres are for supplementary areas deficient of water, and 35,320 acres of new lands. The second large project proposed is the Dolores Project in Dolores County and Montezuma County for a total of 61,000 acres. This encompasses 28,660 acres of supplementary water for existing irrigated lands, and 32,340 acres of new land. Under these projects, there is some municipal water, but contracts have not been signed with the individual cities and the actual amount is still very much in question.

We are listing below private irrigation projects that we feel should be sponsored by the State of Colorado, that are not of sufficient size to be of interest as Federal projects. These are very vital both from an industrial standpoint, as well as an aid to tourism, ranching and farming. The future and major growth of all of Division VII hinges on the completion of the Federal and private water projects and the development of natural resources in the area. As stated above, there are great stores of coal and oil underlying this whole district. This, coupled with ample water, presents an industrial potential.

In keeping with ecological patterns present at this time, we would anticipate that most of the coal mining will be underground and that ways and means will be found reducing smoke-causing air pollution, making it possible that large power development plants will be established along the southern boundary of this State. With this supply of power, we anticipate some industrial plant influx.

The general pattern for ownership of land in this Division, is that private land is found on the valley floors. The mountains and upland territories are mainly Forest Service or Bureau of Land Management lands. Some of the lower

mesas and river bottoms are private lands with some exception being Bureau of Land Management Lands, and a large acreage of Indian Reservation and Indian Fee lands. A large amount of land within the valleys in this Division, as well as large areas of uplands, are being sold and subdivided. The land values have reached astronomical proportions. Much of the land is selling at \$1,000 to \$5,000 per acre. It is anticipated that the population of this general area will be trebled in the next ten years.

The main use of grazing land at the present time is for steer-feeding operations. Most of the farmers, due to a lack of help and the high cost of winter feeding, are no longer in the cow and calf ranching business. With the breakdown of the larger farm units into small summer acreages, coupled with the consolidation of acreages for larger farming and ranching units, the entire economic picture of this Division is being changed very abruptly.

Affecting this picture will be the completion of the La Plata and Dolores, Federal irrigation projects. The cost of placing water on these lands will prohibit the use of water for its present usages, such as irrigated pasture and hay lands. Its usages will have to be changed to the raising of vegetables, fruit, or some other more concentrated use, in order that the per-acre income on these lands will be enough to pay for the construction and maintenance costs.

It is anticipated that lumbering will be maintained on a replacement basis. We also anticipate future construction of large steam plants for the production of electric power.

OTHER PROPOSED PROJECTS

During the last decade, the economy of southwestern Colorado has changed from a prosperous farming and mining community to a depressed area. We feel that this is due primarily to the size of ranch and farm units which are not competitive with the present large units found elsewhere in the west. To correct this deficiency, it is felt that ranch and farm units will have to be enlarged, local incomes will have to be supplemented by other full or part-time employment, and the type of farming and ranching will have to be changed.

We feel that this part of Colorado is blessed with potentials that should make it one of the outstanding economic regions of the west; with the availability of surplus water; availability of large beds of coal; availability of natural gas and oil; and the availability of a good labor market.

Under the labor market, we would like to stress that competent labor may be secured from four sources: 1 - Indian labor from the Ute and Jicarilla-Apache Tribes; 2 - Spanish-American labor who have been displaced due to changes in the economic picture; 3 - Farmers and ranchers who can no longer make an economic livelihood on their small farm units; 4 - Retired persons who have to live on small acreages in this portion of Colorado. We feel that the labor market will increase during the heavy influx of people into this area. Large ranches and farms are being subdivided and people who are either retired or semi-retired will be seeking employment. It is estimated that there will be at least 100,000 additional people residing in this general area in the next fifteen years.

To make more workable units for multiple use of our water resources, we are listing eleven proposed water development projects. In most cases, reconnaissance surveys have been made on these projects. They all need financial support for construction and completion. We will endeavor to give a short resume of each of the proposed projects.

1. A west side Navajo Diversion Ditch taking water from the Navajo River at about the head of the King or Upper Navajo Ditch. This would make available water for 1,800 acres of land; approximately 60% supplementary irrigation and 40% use for new land. Most of this land will be on either the Navajo or Little Navajo River Watershed. Under the 1968 adjudication for District 29 at Pagosa Springs, this ditch was allocated 30 c.f.s. under a conditional decree. It was estimated that cost of the construction of the ditch and its control structures would be \$80,000.
2. A diversion ditch out of the Blanco River at about the confluence of Fish Creek, diverting from the Blanco River, Fish and Big Branch Creeks: this ditch will follow along the eastern slopes of the Blanco River coming into Coyote Park through the Spence Creek Saddle. This would supplement irrigation on the Blanco, Coyote Creek and Montezuma Creek watersheds. The ownership of this land is Indian Tribal, public domain, and private. The length of this ditch would be approximately twenty-five miles, and there would be a supplementary storage reservoir built in Coyote Park. The total cost of this project would be approximately \$350,000. The proposed use of this water would be for

agriculture, fish and wildlife, and recreation. There would be a potentially heavy industrial use of this water as it traverses areas of heavy coal and oil deposits. Much of the project's potential labor market could be secured from the Spanish-American communities of northern New Mexico, and the Indians from the Jicarilla-Apache Reservation. It is estimated that this project will furnish supplementary irrigation water to 2,400 acres; 1,200 acres of new land will be put under this project. Under the 1968 adjudication for District 29, this ditch was given 60 c.f.s. of water under a conditional decree.

3. A proposed diversion ditch will take water out of the west side of the East Fork San Juan River, approximately one mile upstream from the confluence of the East Fork San Juan River. This project is set up for a multiple-use water diversion for supplementing areas that are presently deficient in irrigation water; municipal use, fish and wildlife, recreation, and industry. The introduction of these new waters will supplement the irrigation of approximately six thousand acres; 3,000 acres of new land will come under new irrigation. The location of this land is on the east side range of the San Juan. This water also traverses large areas of large deposits of coal, giving the future use of water a high industrial potential. Within this watershed, there are two potential reservoir sites that would have a high recreational and fish and wildlife value. It is estimated that the cost of this ditch, plus the necessary structures, would be approximately \$600,000. Under the 1968 adjudication for District 29, this ditch was given a conditional decree of 150 cubic feet per second of water.
4. West Fork Canal: water for this ditch is diverted out of the San Juan, supplying supplementary water for ranches on the west side drainage of the San Juan. It will also furnish supplementary water to water-deficient areas on Four Mile and Cabe Creek. Potential use for this water would be supplementary irrigation for domestic and industrial uses.
5. Piedra Falls: this is an enlargement of the present Piedra Falls Ditch to take care of supplementary and additional irrigation in the

- Big Pagosa, Little Pagosa and O'Neal Park drainages and areas. This will furnish mainly supplementary water to 3,000 acres. There is also some possibility for recreational and wildlife use of this water.
6. A reservoir on the East Fork San Juan River: location of this ditch would be at about the head of the canyon of the stream. Due to rock formation and incomplete studies, we are reluctant to make an estimate as to the cost of this dam. Under the 1968 adjudication of District 29, 35,200 acre feet were conditionally decreed to this project.
 7. A reservoir on the West Fork San Juan River: location would be at about the diversion point of the Chapson-Howe Ditch. The purpose of the reservoir will be to more beneficially use water available in the West Fork San Juan. This reservoir will be for multiple uses; irrigation, dams, industrial, fish and wildlife, and recreation. Under the 1968 adjudication of District 29 - 39,356 acre feet were conditionally adjudicated for this reservoir.
 8. Enlargement of the present Red Mesa-Ward Reservoir - this reservoir is located in La Plata County on Hay Gulch. It is proposed to raise the present reservoir ten feet. This would give supplementary water for presently irrigated lands. Estimated cost of this enlargement would be \$80,000.
 9. State Line Reservoir: the proposed site for this reservoir would be across the La Plata River which is above the confluence of Long Hollow. The manipulation of this water would be in conjunction with the compact on the La Plata between Colorado and New Mexico. In certain years, it is very difficult to beneficially use all the flood waters that are available for irrigation on this watershed. Large volumes of water pass down this river without any usage. In the construction of this dam, flood waters would be stored in order that compact obligations to New Mexico could be fulfilled without detriment to the Colorado water users' rights. The water users in the states of New Mexico and Colorado on the La Plata River, are very much in favor of this project. There is a good reserve of labor for the construction of this reservoir coming from local ranchers and farmers, and Ute and Ute Mountain Indians. The estimated cost of construction of this dam would be \$300,000. We feel that even with the approval

and construction of the Animas-La Plata Project, that this dam could be beneficially used in conjunction with that project.

10. Bear Canyon Storage Reservoir located eleven miles upstream from the confluence of Bear Creek and the Dolores River: this dam would be approximately 115 feet high and would impound 7,261 acre feet of water. The main purpose of the additional water would be to supplement available water on the Montezuma Valley Irrigation Ditch. It will also make available supplementary water to some of the ranch lands along the Dolores River that are, at the present time, lacking sufficient water for irrigation.
11. A dam on Coyote Creek, Archuleta County: at the point where Coyote Creek enters the canyon on Bigbee Bros. Ranch. This is an ideal location for a dam at a height of 30 feet and a maximum length of 250 feet, in which 1,400 acre feet of water can be impounded. Estimated cost of this dam is \$35,000. The water would be used for irrigation, fish culture, recreation, and with a high potential industrial and domestic use. In the 1968 adjudication, a conditional decree for 1,371 acre feet was given this project.

In addition to the above list of projects, there are potential water development projects located in the Disappointment Creek Watershed, and also parts of the San Miguel Watershed.

In summarizing the above potential projects, we feel that the financing of the construction could come from the following sources:

- | | |
|------------------------------------|-----|
| 1. Soil Conservation monies | 50% |
| 2. Four Corners Development monies | 30% |
| 3. State of Colorado monies | 20% |

We feel that it is highly desirable that a revolving fund be set up under the State Engineer's Office for the purpose of developing projects of the nature of the ones listed above. With the development of the upper and lower Colorado River Basin, the time is now that Colorado should make use of the water allocated to her under the Upper Colorado River Compact.

The need for these projects are: supplementing present deficiency of water on ranch and farm units; enlarging ranch and farm units to competitive size; developing water for potential industrial and domestic usage; developing water for recreation use; and alleviating the present deficiencies found in "depressed area" situations.

II. PERSONNEL

The following is a list of the personnel in this Division for the period of November 1, 1969 to November 1, 1970:

<u>NAME</u>	<u>POSITION</u>	<u>DISTRICT</u>	<u>MONTHS WORKED</u>	<u>MILEAGE</u>
George E. Barclay	Division Engineer		12	18,101 P.* 4,962 S.
Thomas A. Kelly	Asst. Division Engineer		12	962 P.* 9,123 S.
Ann-L. Fauth	Clerk		12	(1,161)P.
Terry P. Alley	D.W.C.	30	9 3/4	8,083
Neil Bankston	W.C.I.	69	3 1/2	3,619
Roy M. Brown, Jr.	D.W.C.	29	9 1/4	14,337
George E. Davis	W.C.I.	30	11 1/4	12,697
George Edmonson	D.W.C.	32	9 1/4	8,831
Glen E. Humiston (new employee May 1970)	W.C.I.	34	6	5,531
Chris Jones (retired April)	W.C.I.	34	4 3/4 (sick leave 4 mos.)	241
Edward C. Kennedy	W.C.I.	33	11	8,387
Russell J. Kennedy	D.W.C.	33	10	8,083
William P. Lynn	W.C.I.	29	10 1/4	10,032
Ronald R. Robinson	D.W.C.	29	6	7,407
Bob R. Shahan	D.W.C.	29	5 3/4	3,140
Lawrence J. Shock	D.W.C.	31	8	5,083
Avrit G. Sparks	W.C.I.	31	10 3/4	11,683
Wilfred Speer	D.W.C.	32	6	<u>7,003</u>
TOTAL				133,220

* P. - private vehicle

S. - State vehicle

III. WATER SUPPLY

A. SNOW PACK

<u>SNOW PACK</u>	<u>NO. OF COURSES</u>	<u>THIS YEAR'S SNOW WATER PERCENTAGE</u>	
		<u>LAST YEAR</u>	<u>AVERAGE</u>
Animas	6	99	122
Dolores	4	127	175
San Juan	3	83	91

This year was spent in public relations and setting up the necessary controls and stations in order to carry on a weather modification program. Although there were some instances of weather modification programs in this Division, they were of little significance. The overall weather modification by the Department of the Interior is to begin in the fall of 1970.

<u>WATER SUPPLY</u>	<u>MAY THRU SEPT. 1000 A.F. FORECAST</u>	<u>% OF NORMAL</u>	<u>15 YEAR AVERAGE</u>	<u>ACTUAL</u>	<u>% OF NORMAL</u>
Animas at Durango	350	96	365	466	128
Dolores at Dolores	200	103	195	236	121
La Plata at Hesperus	16.5	83.8	19.7	19.8	100.5
Los Pinos at Bayfield	132	76	174	208	119
Piedra River at Piedra	107	81	132	164	124

STREAM SUPPLY OUTLOOK

FLOW PERIOD

Florida	Spring- Exc. : Avg.- Summer
Mancos	" Exc. : Avg. "
San Miguel	" Exc. : Avg. "

<u>SOIL MOISTURE</u>	<u>NO. OF STATIONS</u>	<u>THIS YEAR MOISTURE AS PERCENT OF</u>	
		<u>LAST YEAR</u>	<u>AVERAGE</u>
River Basin	3	90	70
Dolores	2	87	87
San Juan	2	81	71

B. SUMMER PRECIPITATION

After below-normal precipitation in April and the forepart of May, we received an above-normal amount of precipitation during the months of June and

July. August was about normal. Then in September "the rains came". During September we had 4.53" of rainfall in Durango, most of this coming on September fourth and fifth. We were "blessed" again by heavy downpours on the twelfth and thirteenth. The same periods of rainfall also occurred at Ft. Lewis where they received 4.83"; Silverton had 7.47"; Pagosa Springs 5.68"; and Cortez recorded 1.98". Much of this rain, especially the second go-round, occurred in limited areas. On Yellowjacket Creek between Cortez and Dove Creek, records of up to 18" of rain were recorded in a twelve-hour period. Also, in other areas in Montezuma County, heavy rains fell. It seems that the weather station at Cortez missed the heaviest rains. No effort was made to suppress hail in this area.

C. FLOODS

The following peaks of floods occurred either on the fifth or sixth of September, or on the twelfth and thirteenth:

<u>STREAM</u>	<u>C.F.S. DISCHARGE</u>
Navajo River + -	1,700
Blanco River	2,340
San Juan River	6,580
Piedra River	7,980
East San Juan River	1,710
West San Juan River	2,520
Vallecito River	5,480
Mancos River at Towaoc	4,530
McElmo Creek at Ismay	2,880
Dolores River at Rico	1,930
Dolores River at Dolores	5,180
Disappointment Creek	2,700
Dry Creek	5,660
Animas River	11,820

To date, we do not have any definite information as to the intensity of these storms. The Bureau of Reclamation estimates the storm on the Blanco River was a sixty-year storm. We have rough estimates of up to 10,000 c.f.s. occurring on Yellowjacket Creek between Cortez and Dove Creek. Damages were sustained

on many of the water courses. This whole area was declared a disaster area. Teams composed of Water Commissioners, Bureau of Reclamation and O.E.P. personnel; and Army Engineers, made damage surveys on most of the water courses. Ditch headings were hard hit. Below we are listing the damages incurred to ditch headings by counties:

<u>COUNTY</u>	FLOOD DAMAGE NUMBER		<u>AMOUNT</u>
	<u>LESS THAN \$300 PER DITCH</u>	<u>MORE THAN \$300 PER DITCH</u>	
Archuleta		47	\$43,085
Archuleta	45		9,110
La Plata		11	6,408
Montezuma		26	23,634
Hinsdale		2	2,970
Hinsdale	5		1,030
Mineral		4	5,500
Mineral	4		830
Dolores		4	6,800

You will note on this tabulation that we have not included damage in some counties where the amount was less than \$250, depending on the team making the survey. Some teams did not list this damage, and, therefore, they are not available.

Hard hit during this flood and accounting for a large amount of damage, were roads and bridges. On the Blanco River, four bridges were either washed out or severely damaged; on the San Juan River, at least four bridges were washed out; on the upper Piedra River, with the exception of one, all bridges were washed out. A large amount of debris was deposited in stream beds also. The Army allowed a substantial amount for clean-up work on river channels.

Good progress is being made on the repair of ditch headings, roads and bridges. It is hoped that a large number of these will be completely repaired before winter sets in.

D. GENERAL

Below is a "water budget" tabulation for the season November 1 through October 31, 1970

WATER BUDGET

UPPER RIVER	RIVER STATIONS LOWER RIVER	1		2		3		4		5		6		7		8		9	
		A.F. YIELD DRAINAGE AREA		IRRIGATION DIVERSION A.F.		DIST. NUMBER		DEPLETION BY IRRIGA.		MUNICIPAL DIVERS.		DEPLETION BY MUNICIPAL.		OTHER DIVERS.		OTHER DEPLET.		RUNOFF AT MOUTH A.F.	
	San Juan at Carracas Piedra at Arboles	687,900		106,128		29												443,200 244,700	
	Pine at La Boca	163,300		224,333		31												163,300	
	Florida at Bondad Animas, Cedar Hit1	715,150		175,735		30				4,852								45,050 670,100	
	La Plata at Colo.- Hesperus	27,003		24,134		33		8,995										18,028	
	Dolores at Dolores Mancos at Towaoc	305,260		179,948		34												292,060 13,200	
	Disappointment at Dove Creek	14,075		6,656		69				10								14,075	
	Siembritas	No Station		7,047		46												No Record	
	Mc Elmo, State Line	41,380		28,878		32												41,380	
	TOTALS	1,954,068		752,859				8,995		4,862								1,781,793	

It is very difficult in this Division to make a comprehensive water budget. Most of the supply comes from yield areas within the respective watersheds extending to the State Line. To tabulate an accurate account of all the water produced and used within each of the old water districts, it would be necessary to have an untold number of recording gages on each of the contributing branches of the main rivers within each district.

We have not shown any municipal water use for the town of Pagosa Springs. This year they were converting from a river diversion next to the town, to a gravity flow diversion located approximately seven miles above the town on the San Juan River. At the present time they do not have any records as to the amount of water used by this diversion.

We feel that a "water budget" is a very fine thing and that as water becomes scarce, it will become more and more important. In this Division, we only have a few streams that go on "call". Also, we do not have gaging stations to accurately compile a water budget. We have good stations and good control of the La Plata River. A good water budget can be worked up for this stream.

We have just completed the installation of measuring devices on the Navajo, Little Navajo and Blanco Rivers. Next year it will be possible to work up a good water budget for these streams.

If and when the Animas-La Plata Project is constructed, and a few of the other proposed projects are realized on the Animas River, it will be necessary to establish a gaging station near the Colorado-New Mexico state line; then, at that time, we can work out a water budget for the Animas River Watershed.

Under our proposed budget for 1970-72, we proposed a gaging station on the Mancos River. When this is installed, we can work out a good water budget for that stream.

When the Central Arizona Project is completed, it will be necessary for us to install more gaging stations on all of the streams that flow into the Colorado River, in order that we can directly "budget" the upper Colorado River water that is due the State of Colorado.

E. UNDERGROUND WATER

<u>DISTRICT</u>	<u>UNDERGROUND WATER</u>		<u>IRRIGATION</u>	<u>U S E</u>		
	<u>NO. OF WELLS</u>	<u>AMOUNT C.F.S.</u>		<u>MUNICIPAL</u>	<u>INDUSTRIAL & COMMERCIAL</u>	<u>STOCK & DOMESTIC</u>
29	138	.2527				x
	11	.5022			x	
	1	.1000	x			
30 - 31	415	.7349				x
	5	.0120			x	
	3	.0086	x			
	2	.0080			x	
32	72	.0996				x
	7	.0743		x		
	14	.1428			x	
34	57	.0528				x
	1	.0200		x		
69	17	.0073				x
	1	.0216			x	
	8	.0441			x	
	2	.0080			x	

The total yield of water in the entire Division from underground aquifers,

is a little over two cubic feet per second. This represents 754 wells. The total yield bears out the fact that in this Division we do not have any known aquifers that produce any appreciable amount of water.

We have one well listed for irrigation and that is for 0.10 c.f.s. The importance of wells for irrigation in this Division at the present time, is of a very minor nature.

F. TRANSMOUNTAIN DIVERSIONS

<u>NAME OF DITCH</u>	<u>SOURCE OF SUPPLY</u>	<u>RECIPIENT</u>	<u>AMOUNT A.F.</u>
Pine River-Weminuche Pass Fuchs Ditch	Pine R.	Liland Fuchs & Harley Fuchs - Del Norte	423.0
Weminuche Pass Ditch Raber-Lohr Ditch	Pine R.	Hilde Lohr & Leon Raber Del Norte	1060.0
Treasure Pass Ditch	San Juan	Fred Falk - Del Norte	328.0
Williams Creek Squaw Pass	Piedra R.	Loren Sanderson & Craton Sanderson - Monte Vista	108.0
Piedra Pass Ditch	Piedra R.	Colo. State Game & Fish	55.0
Carbon Lake Ditch	Animas R.	Helen Tinkler, et. al Montrose	277.0
Red Mountain Ditch	Animas R.	John Jutten - Silverton	117.0

G. RESERVOIR STORAGE

<u>NAME OF RESERVOIR</u>	<u>SOURCE OF SUPPLY</u>	<u>AMOUNT 11-1-1969</u>	<u>AMOUNT BEGINNING IRR. SEASON</u>	<u>AMOUNT 10-31-1970</u>
Red Mesa Ward	La Plata River Hay Gulch	870.00	1,200.00	905.00
Vallecito	Pine River	79,737.00	83,022.00	74,507.00
Wommer	Little Bear Creek	101.90	220.00	150.50
Belmear Lake	Rincon Creek	200.00	496.00	400.00
Dunham	Groundhog Creek	80.00	100.00	85.00
Garner	Bear Creek	30.00	36.00	30.00
Morrison	Morrison Creek	70.00	116.00	70.00
Groundhog	Fish Creek	14,000.00	21,710.00	13,636.00
Fall View	Navajo River	7.78	7.78	7.78
G. S. Hatcher	Stollsteimer	1,400.00	1,729.00	1,675.00
Harris & Boone	Blanco River	205.00	205.00	190.00
Hersch	Stollsteimer	10.00	16.00	14.00

G. RESERVOIR STORAGE (Continued)

<u>NAME OF RESERVOIR</u>	<u>SOURCE OF SUPPLY</u>	<u>AMOUNT 11-1-1969</u>	<u>AMOUNT BEGINNING IRR. SEASON</u>	<u>AMOUNT 10-31-1970</u>
Linn & Clark	Stollsteimer	5.00	10.00	150.00
Spence	Coyote Creek	360.00	441.00	360.00
Stevens	Stollsteimer	400.00	600.00	400.00
Wilson	Blanco River	7.00	7.00	7.00
Jackson Gulch	West Mancos River	6,013.00	9,980.00	6,506.00
Bauer No. 1	Chicken Creek - Crystal Creek	60.00	350.00	115.00
Bauer No. 2	Chicken Creek - Crystal Creek	120.00	1,532.00	400.00
Big Pine	Turkey Creek	40.00	260.00	90.00
Summit	Lost Canyon	937.00	4,795.00	1,200.00
A.M. Puett	Lost Canyon	400.00	2,257.00	600.00
L.A. Bar	Chicken Creek	50.00	72.00	18.00
Webber	Middle Mancos River	270.00	270.00	170.00
Totten	Dolores River	1,600.00	3,302.00	1,600.00
Narraguinnep	Dolores River	8,500.00	19,050.00	9,500.00
Lemon	Florida River	29,301.00	38,624.00	29,920.00
Short	Florida River	40.00	40.00	40.00

IV AGRICULTURE

The main crops raised in this Division are hay, wheat and beans. The beans are raised mainly on dry lands. This year's hay crop yields were very good where there was sufficient water. Probably the yield was better than in some places where they had insufficient water. What we are trying to say is this; on many of the river bottoms, many of the ranchers in this country use excessive water and this causes a deterioration of meadows. Many of these meadows revert to sedge-type vegetation due to excessive water. The yields varied from one and one half tons per acre, up to three and one half tons per acre for improved hay. Much of the hay was left standing and pastured. It is estimated that only fifteen percent of the hay lands were harvested and baled.

Due to a dry early fall, the wheat yield was very low. It is estimated that the average yield throughout this Division was less than twenty bushels per

acre. The upland bean crop suffered worse than any other crop. This was due to insufficient ground moisture when the crop was planted; and a dry June, July, and early part of August. When the rains came in September, it was too late to help the beans, and only damaged a poor stand.

The fruit crops in this Division were poor to good. Due to late freezes, very few peaches, cherries, and apricots were harvested. A bumper crop of apples were harvested mainly in Montezuma and La Plata Counties.

Poor returns were realized by ranchers for the grazing of steers this summer. Most of these ranchers paid \$45 cwt. for calves in May and June, and sold them for approximately \$28 per cwt. in November.

Yields on dry land bean crops were below normal. An average of less than 300 pounds per acre was realized.

The general economic condition of this area is depressed.

V. COMPACTS AND COURT STIPULATIONS

We have one compact with other states - that is the La Plata Compact - and one transmountain diversion which in all reality will probably be either an agreement between the states, or a compact. Below is a summary of the contents of the La Plata Compact, and the San Juan-Chama Diversion Project.

BACKGROUND OF THE LA PLATA PROJECT:

The La Plata Compact received its final approval by the President of the United States, signed February 7, 1923. Under this compact, the state of Colorado maintains two river gaging stations; one at Hesperus and the other at the New Mexico-Colorado state line. Besides maintaining these two stations, we are also endowed with the responsibility of maintaining two recorders on ditches that are diverted in New Mexico that have diversion points out of the La Plata River above the State Line station. We also have the responsibility of maintaining two ditch recorder stations above the Hesperus river station.

GENERAL ADMINISTRATION:

The general administration of this water consists of delivering to New Mexico, one half the amount of water that was recorded at Hesperus the day before. This is on a twenty-four hour acre feet basis. We endeavor to carry out the language of the Compact as far as possible. Under the Compact, there is no leniency as far as deviations from the letter are concerned. We have a

few informal agreements with the State Engineer of New Mexico, relative to the administration of this Compact. We try to level off debits and credits by the under or over supplying of water at the State Line every three days. Also, we have an informal agreement wherein, when the flow at Hesperus is reduced to under 25 c.f.s., and better than half of it is lost through evaporation to the State Line, that the State of Colorado take all of the water on the upper river and New Mexico take all the water on the lower river.

In many instances, the water dries up between Hesperus and the State Line. Return flows on the lower river is the water supply that New Mexico takes. The maximum amount of water that has to be delivered to New Mexico at any time is 100 c.f.s.

PROBLEMS:

During early spring, the lower river thaws out earlier than the upper river, and New Mexico receives more total water than Colorado. When spring floods come, considerable difficulty is experienced in maintaining 100 c.f.s. flow at the Colorado-New Mexico State Line, and still take the right amount of water in the Colorado ditches. Problems which cause a variance may be due to the following: debris plugging headgates; diurnal flows due to differences in daily temperatures; side drainages such as Long Hollow and Cherry Creek which flow into the La Plata River below Hesperus.

Also very influential in the allocation of water is that the La Plata River is very much over-appropriated in Colorado. The river is "on call" about three hundred and sixty-five days of the year.

This year, no troubles were experienced in the carrying out of the La Plata Compact - in fact, we only had one call from the State Engineer's Office in Santa Fe relative to our handling of the Compact requirements this year. This was of minor consequence.

BACKGROUND OF THE SAN JUAN-CHAMA DIVERSION:

The San Juan-Chama Diversion, Public Law 87-483, was passed by the 87th Congress, S. 107, on June 13, 1962. This authorized the diversion of a certain amount of water from the San Juan Watershed into the Rio Grande Watershed. This project was completed in October of this year. The first trial run was made on Tuesday, November 17. Below is a brief summary of the contents of this Act.

The State of New Mexico can take from the San Juan Diversion, up to 1,350,000 acre feet of water over any ten-year consecutive period. Such record

will begin the first day of October each year. No more than 270,000 acre feet of water shall be diverred in any one year. "The Secretary of the Interior, shall operate the project so that there shall be no injury, impairment, or depletion of existing or future beneficial uses of water within the State of Colorado, the use of which is within the apportionment made to the State of Colorado by article III of the Upper Colorado River Basin compact, as provided by article IX of the Upper Colorado River Basin compact and article IX of the Rio Grande compact".

This San Juan-Chama diversion is considered as the first stage of development. It is believed that the State of New Mexico has over-appropriated their water under the Upper Colorado River compact, and that if this be the case, no further exploitation of San Juan River water will be made by the State of New Mexico.

Under this Act, the minimum flows are to be in accordance with Section 8, (f): "the Secretary (of the Interior) shall operate the project so that for the preservation of fish and aquatic life the flow of the Navajo River and the flow of the Blanco River shall not be depleted at the project diversion points below the values set forth at page D2-7 of appendix D of the United States Bureau of Reclamation report entitled "San Juan-Chama Project, Colorado-New Mexico", dated November 1955."

There are a number of other sections and subsections relative to the accountability of water and where the water is to be used in New Mexico. Also, there are paragraphs relative to the use of water by Indians and contracts on existing Reclamation projects.

GENERAL ADMINISTRATION:

As this project has not been in operation, we are only setting up the structure to properly administrate this water. We have recently established three new gaging stations; one on the Navajo at Juanita close to the junction of the San Juan and Navajo Rivers; one on the lower Blanco River; and the third station on the Little Navajo near the junction of the Little Navajo with the Navajo River. This will give us good readings of the flow of these streams at their lower reaches. It is our plan to use the G.S. stations at Banded Peaks on the Navajo; Edith on the Navajo; and the Blanco station above the diversion. We have also required the water users to instal new headgates and Parshall Flumes on most of the ditches on the Navajo, Little Navajo, and Blanco Rivers. With

the information secured by these controls and the information secured by the Bureau of Reclamation relative to diverted water, we should start accumulating good records as to the water used and diverted as well as maintaining records of high and low flows in these three streams.

ANTICIPATED PROBLEMS:

1. The control of the diversions from the Navajo, Little Navajo, and Blanco Rivers is to be at Chama, New Mexico. It will not be possible for any Colorado personnel to gain access to any of these stations to check the operation of the Diversion works by the Bureau of Reclamation.

2. During winter months, it will be very difficult to maintain good water records due to freezing conditions at the stations. It may be necessary to winterize all of these stations. The main source of domestic and stock-water comes from either pumping water from the Navajo, Little Navajo and Blanco directly, or from surface flows from ditches diverted from these rivers.

3. The big difference in contention, is where the minimum flows will be taken. The Bureau of Reclamation maintains that the following flows will be measured at the points of diversion; we have a recent letter from the Bureau of Sports Fisheries and Wildlife stating that the minimum flows will be at any point below the Bureau of Reclamation diversions. The Bureau of Reclamation claims that the amount of water passing below the diversions will be the amount specified and no consideration by them will be given the decreed water rights to water users of Colorado - even if the water is dried up below their diversion point. This problem may reach the courts before it is resolved.

VI. DAMS

A.

With very few exceptions, all dams were inspected this year. We have written letters to different dam owners or their representatives, calling attention to needed repairs and maintenance. We do not feel that any of these presents an alarming problem.

We have listed below the dams in each district which are over ten feet in height.

<u>DIST.</u>	<u>NAME</u>	<u>LENGTH IN FEET</u>	<u>HEIGHT IN FEET</u>	<u>CAPACITY IN A. F.</u>	<u>PLANS FILED</u>	<u>INSPECTED</u>
29	G. S. Hatcher	798	46.5	1,734.80	yes	6/11/70
	Echo	284	69.0	2,148.80	yes	6/11/70
	Pargin	1,000	35.5	450.00	yes	6/11/70
	Williams Creek	550	84.0	1,084.00	yes	6/11/70
	Harris Bros. & Boone #2	270	23.0	35.00	yes	11/21/70
	Harris Bros. & Boone #1	418	21.0	48.80	yes	11/21/70
	Dunnagen #1	569	15.0	93.00	yes	11/21/70
	Squaw Canyon	555	29.0	469.90	yes	not built
	Stevens	569	87.0	135.00	yes	6/11/70
	Hersch #1	200	7.0	16.00	no	11/20/70
	Slesinger	300	14.0	26.20	no	5/25/70
	Spence	915	48.0	414.00	yes	5/25/70
	Thomas	750	9.0	55.66	no	11/20/70
	T-Lazy-T	2,600	8.0	2.00	no	11/20/70
	Dunnagen #2	200	10.0	5.00	no	11/20/70
	Linn & Clark	1,200	30.0	426.00	no	11/20/70
	Hersch #2	360	8.0	10.00	no	11/20/70
30	Lemon	1,475	215.0	48,702.00	yes	10/ 4/70
	Highland Mary	210	27.0	15.50	yes	no
	S.J. McCrosky	350	17.0	60.00	yes	not built
	Haviland	580	13.0	340.00	yes	6/12/70
	Hutchinson	320	24.0	11.70	yes	6/12/70
	Little Molas	300	45.0	410.00	yes	6/11/70
	Turner	510	36.0	472.00	yes	6/ 3/70
	Henderson	200	24.0	58.00	no	9/ 4/70
	Keeler	110	45.0	490.00	yes	9/ 4/70
	Cascade	29,040	32.0	23,380.00	yes	9/ 4/70
	Pastoris	1,000	20.0	560.00	no	6/11/70
	Durango	940	30.0	218.10	no	no
	Short	250	12.0	40.00	yes	no
31	Emerald Lake	200	5.0	1,485.00	yes	no
	Wommer	564	37.0	189.69	yes	7/15/70
	Vallecito	4,000	125.0	126,279.00	no	7/15/70
32	Duck Nest	1,860	15.0	139.00	yes	7/16/70
	Cortez	750	37.0	71.40	yes	10/20/70
	Totten	3,005	30.0	3,495.00	yes	10/20/70
	Montezuma Plywood	336	30.0	8.23	yes	10/20/70
33	Red Mesa Ward	355	49.0	4,170.00	yes	10/26/70
	Taylor	845	15.0	85.80	yes	no
	Hesperus	1,082	8.0	---	yes	not built
34	Bauer Lake #1	1,208	30.0	229.50	yes	10/22/70
	L.R. Cox	700	18.0	41.20	yes	*
	Hurst	1,200	22.0	100.00	yes	7/16/70
	Long Pine	1,524	26.0	459.60	yes	10/22/70
	L.A. Bar	712	10.0	72.00	yes	10/22/70
	Wallace #1	550	26.0	54.80	yes	no
	Jackson Lake	1,600	220.0	7,808.00	no	10/22/70
	Narraguinnep	6,653	100.0	19,050.00	yes	10/26/70
	Willis L. Smith #1	308	18.0	32.70	no	10/24/70
	Coppinger #1	640	22.0	39.00	no	10/17/70
	Coppinger	440	16.8	16.20	no	7/16/70
	A.M. Puett	2,000	43.0	2,394.00	no	10/22/70
	Lost Canyon	197	21.0	129.40	yes	10/22/70
	Bauer Lake #2	800	50.0	10.72	no	10/22/70
Summit	9,870	50.0	5,954.40	yes	10/29/70	

<u>DIST.</u>	<u>NAME</u>	<u>LENGTH IN FEET</u>	<u>HEIGHT IN FEET</u>	<u>CAPACITY IN A.F.</u>	<u>PLANS FILED</u>	<u>INSPECTED</u>
34	Weber Reservoir	1,130	25.0	442.00	yes	10/22/70
	Hallett & John Osbin	330	25.0	408.00	yes	not built

*L.R. Cox washed out in
1965 and has not been
repaired.

69	Belmear	300	45.0	445.00	yes	7/16/70
	Buck Pasture	500	25.0	53.94	no	7/16/70
	Garner	460	60.0	36.97	no	7/16/70
	Groundhog	1,500	125.0	21,710.80	yes	7/16/70
	Morrison	576	23.0	116.30	no	7/16/70
	Ethel Belmear	500	15.0	87.30	no	7/16/70
	Dunham	400	25.0	60.00	no	7/16/70
North Creek	400	16.0	10.00	no	7/16/70	

B. LIVESTOCK WATER TANKS

SEE APPENDIX C

B. LIVESTOCK WATER TANKS (Continued)

VII. WATER RIGHTS

A. TABULATION

All the correction cards for this Division were completed in early October. We have also prepared new cards for the October adjudications. The total amount of correction cards completed to date by this office numbers 310. Of this number, we had official protests covering 54 cards. Approximately 22 of these protests were relative to a multiple use of water. This is one point we feel needs clarification in our water laws.

The protest of the twenty-two covered an intended omission on the part of the Division Engineer for not showing all the possible usages of water. This individual had made a dual petition requesting absolute water rights on a certain amount of water; changing the conditional to absolute, and a biennial finding for an enlargement of the system. All of these rights carried multiple use requests. I did not feel that the absolute water should carry all the intended uses, although a large percentage of these uses had been proven up on, but only using a small portion of the water.

We feel that a large portion of the public has accepted the new water law. Since the last election, even our most vehement opponents have pulled in their necks and feel that the water laws are satisfactory if a few minor amendments are made.

To improve public relations, we have appeared on the radio a few times, and also wrote several articles for the newspapers. We also held public meetings both at Mancos for a group of about one hundred and twenty people; and at Cortez where approximately one hundred people attended. We feel that these public relation acts did a lot to establish better understanding with the water users.

Since the tabulation, there has been a steady stream of individuals coming into this office checking on their water rights and we have also assisted them in filing for new rights and making the necessary changes to legalize their old conditional rights. Most people are still confused relative to the tabulation, but we feel that although they are confused, they are no longer afraid that their water rights will be taken away from them.

B. REFEREE'S FINDINGS AND RULINGS AND DECREES

	<u>INVESTIGATED BY DIV. ENGINEER</u>	<u>REFEREE RULING</u>	<u>COURT DECREE</u>
1. Underground Water Rights	4	4	0
2. Change of Water Right	40	25	14
3. Plan for Augmentation	0	0	0
4. Water Right	84	72	36
5. Diligence:- Conditional Made Absolute	113	109	89
Biennial Findings	110	110	101
6. Water Storage Right	<u>9</u>	<u>9</u>	<u>7</u>
TOTALS	366	329	247

There are five cases set for hearing as a result of protests filed by objectors to the applications filed. We do not have one single case where an owner requested an alternate point of diversion from a surface right to a well. We have some augmentation, or alternate points of diversion, pumping water from a stream into a ditch. We also have a large number of wells that are in the process of being adjudicated at the present time.

VIII. ORGANIZATIONS

A. WATER CONSERVATION AND CONSERVANCY DISTRICTS

<u>NAME</u>	<u>ADDRESS</u>	<u>ATTORNEY</u>	<u>OFFICER</u>
La Plata Water Conservation	115 W. 11th. Durango	F. S. Maynes	J. R. Kroeger
Dolores Water Conservancy	115 W. 11th.	F. S. Maynes	I. W. Patterson
Florida Water Conservancy	1157 Main Durango	L. W. McDaniel	Chester Beaton
Mancos Water Conservancy	115 W. 11th.	F. S. Maynes	Lloyd Doerfer
Pine River Irrigation	842 Main Durango	Al Emigh	Frank Wommer, Jr.
San Miguel Water Conservancy	115 W. 11th. Durango	F. S. Maynes	Dan Noble
S.W. Water Conservation	115 W. 11th. Durango	F. S. Maynes	D. L. Williams

B. DITCH COMPANIES

Montezuma Valley Irrigation District
 Hearld G. Keown, Secretary
 Cortez, Colorado

Summit Ditch Company
 Edmond Mc Rae, Secretary
 Dolores, Colorado

Bauer Lakes Water Company
 Mrs. Dwight Wallace, Secretary
 Mancos, Colorado

Park Ditch Company
 Roland Bartel, President
 Pagosa Springs, Colorado

IX. WATER COMMISSIONERS' SUMMARY

	<u>NUMBER</u>	<u>A.F.</u>	<u>DUTY OF WATER</u>	
			<u>DIRECT</u>	<u>STORAGE</u>
			<u>A.F./A.</u>	<u>A.F./A.</u>
<hr/>				
WATER DISTRICT 29				
Direct Flow Diversions		102,399	4.21	
Reservoir Storage		3,729		0.87
Acres Irrigation	<u>Direct</u>	<u>24,292</u>		
	<u>Storage</u>	<u>4,230</u>		
Number of Ditches		219		
Number of Reservoirs Served		9		
Average Demand A.F./A.		4.37		
<hr/>				
WATER DISTRICT 30				
Direct Flow Diversions		156,951	3.78	
Reservoir Storage		18,784		0.87
Acres Irrigation	<u>Direct</u>	<u>41,541</u>		
	<u>Storage</u>	<u>21,673</u>		
Number of Ditches		176		
Number of Reservoirs Served		2		
Average Demand A.F./A.		4.23		
<hr/>				
WATER DISTRICT 31				
Direct Flow Diversions		168,907	3.37	
Reservoir Storage		55,426		1.68
Acres Irrigation	<u>Direct</u>	<u>50,128</u>		
	<u>Storage</u>	<u>32,944</u>		
Number of Ditches		70		
Number of Reservoirs Served		2		
Average Demand A.F./A.		4.03		
<hr/>				

IX. WATER COMMISSIONERS' SUMMARY (Continued)

	<u>NUMBER</u>	<u>A.F.</u>	<u>DIRECT A.F./A.</u>	<u>OF WATER STORAGE A.F./A.</u>
WATER DISTRICT 32				
Direct Flow Diversions		28,878	5.64	
Reservoir Storage *				
Acres Irrigation Direct	5,121			
Number of Ditches	50			
Number of Reservoirs Served	1			
Average Demand A.F./A.	5.64			
*Reported in District 34				
WATER DISTRICT 33				
Direct Flow Diversions		23,042	1.77	
Reservoir Storage		1,092		1.92
Acres Irrigation Direct	13,024			
Storage	566			
Number of Ditches	45			
Number of Reservoirs Served	1			
Average Demand A.F./A.	1.85			
WATER DISTRICT 34				
Direct Flow Diversions		134,859	2.83	
Reservoir Storage		45,089		1.09
Acres Irrigation Direct	47,660			
Storage	49,371			
Number of Ditches	61			
Number of Reservoirs Served	10			
Average Demand A.F./A.	3.64			
WATER DISTRICT 46				
Direct Flow Diversions		7,047	3.74	
Reservoir Storage		none		
Acres Irrigation Direct	1,884			
Number of Ditches	21			
Number of Reservoirs Served	none			
Average Demand A.F./A.	3.74			
WATER DISTRICT 69				
Direct Flow Diversions		6,496	4.68	
Reservoir Storage		160	2.05	
Acres Irrigation Direct	1,387			
Storage				
Number of Ditches	22			
Number of Reservoirs Served	4			
Average Demand A.F./A.	4.80			

TRANSMOUNTAIN DIVERSIONS

FROM WATER DISTRICT 29

TO WATER DISTRICT 20

Name of Diversion:

Diversion in Acre Feet:

Squaw Pass Ditch	108
Piedra Pass Ditch	55
Treasure Pass Ditch	328

FROM WATER DISTRICT 30

TO WATER DISTRICT 68

Name of Diversion:

Diversion in Acre Feet:

Carbon Lake Ditch	277
Red Mountain Ditch	117

FROM WATER DISTRICT 31

TO WATER DISTRICT 20

Name of Diversion:

Diversion in Acre Feet:

Pine River-Weminuche Pass Ditch (Fuchs Ditch)	423
Weminuche Pass Ditch (Raber & Lohr Ditch)	1,060

There are no transmountain diversions in the remaining Districts.

Very good progress continues on the installation of headgates and Parshall Flumes in District 29, in order that we may have better control and accountability of water in connection with the San Juan-Chama Diversion Project. A total of 108 Parshall Flumes, and at least 13 headgates were installed.

We have continued to request installation of flumes on other ditches throughout the Division. We feel that we now have flumes on nearly one hundred percent of the ditches that are needed to keep accurate records on water diversions in the Division.

X. RECOMMENDATIONS AND SUGGESTIONS

We feel that this annual report is well thought out and we have very few suggestions to make relative to adding to or deleting from its contents.

This year has been a very busy one in the Division office. It has been very difficult to keep on top of the ever-changing picture. We feel that we are well over the "hump" as far as administrative problems are concerned. We

have worked very closely with attorneys, water users, legislators, and the judicial, trying to make "81" work.

We were very dubious about working closely with the judiciary in carrying out investigative work with the referee. After working on this for nearly a year, we now feel that this is the way to do it. We feel that the water commissioners and the Division Engineers are more knowledgeable about locations and uses of water, than anyone else in this Division. If we had to work against a referee, in some instances there would be utter confusion.

We feel that the following are problems that should be clarified in legislation: (1) abandonment of water, (2) adjudicating water on a volumetric basis, (3) as authority has been placed on the Division Office, more permanent help be assigned to the Division in the way of water commissioners.

We feel that it will only be a matter of time until the accountability and ownership of all water will be under the office of the Division Engineer. In the meantime, we should take steps toward that end.

APPENDIX A

TEMPERATURE

NOVEMBER, 1969 TO OCTOBER, 1970 (INCLUSIVE)

STATION	1969	1969	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEPT.	OCT.	AVERAGE
	NOV.	DEC.											
Durango Difference	36.3 +0.2	31.4 +3.5	27.3 +2.0	36.2 +6.5	35.0 -1.7	40.6 -4.5	53.5 +1.0	59.6 -1.0	68.7 +1.7	68.5 +2.5	56.0 -3.0	43.6 -4.9	46.4 +0.2
Ft. Lewis Difference	32.5 -0.7	27.4 +1.5	24.3 +1.3	32.5 +6.6	29.5 -2.2	35.1 -6.1	50.3 +1.3	57.3 +0.1	65.2 +1.6	65.2 +3.3	52.2 -3.5	39.2 -6.4	42.6 -0.2
Silverton Difference	25.7 -0.9	22.2 +2.9	16.9 +0.2	23.9 +4.9	21.9 -1.9	27.3 -5.9	45.1 +3.2	50.0 +0.3	55.3 +0.2	55.4 +1.3	41.5 -6.7	35.4 -3.6	35.1 -0.5
Pagosa Springs Difference	32.6 -	27.8 -	22.5 -	32.0 -	30.5 -	36.0 -	48.9 -	55.6 -	64.2 -	64.4 -	48.0 -	40.6 -	41.9 -
Cortez Difference	37.2 -0-	32.9 +3.4	30.2 +2.7	37.3 +5.4	35.8 -2.7	40.5 -6.9	56.5 +0.6	64.8 +0.1	72.9 +1.6	71.9 +2.3	59.1 -3.1	45.9 -5.1	48.8 -0.1

APPENDIX B

PRECIPITATION
NOVEMBER 1969, TO OCTOBER, 1970 (INCLUSIVE)

STATION	1969 NOV.	1969 DEC.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEPT.	OCT.	AVERAGE
Durango Difference	0.96 -0.02	0.45 -1.18	0.26 -1.35	0.14 -1.16	2.52 +1.03	0.41 -0.88	0.03 -1.10	1.65 +0.80	2.23 +0.42	2.19 -0.17	4.53 +2.80	0.96 -0.02	16.33 -1.71
Ft. Lewis Difference	0.97 -0.02	0.71 -0.89	0.30 -1.34	0.26 -1.45	2.40 +0.86	0.82 -0.66	-0- -1.19	1.56 +0.66	2.08 +0.33	2.03 -0.11	4.83 +3.03	1.16 -0.87	17.12 -1.67
Silverton Difference	1.31 +0.15	0.61 -0.89	0.76 -0.70	0.22 -1.45	2.39 +0.31	1.53 -0.23	0.10 -1.29	2.15 +0.74	3.81 +1.34	4.34 +1.52	7.45 +5.19	1.97 -0.29	26.64 -4.38
Pagosa Springs	1.02	0.53	0.25	0.19	2.86	-0-	0.13	1.64	2.04	2.60	5.68	1.76	18.70
Cortez Difference	0.86 -	0.50 -0.62	0.28 -0.78	0.08 -1.02	1.96 +0.87	0.58 -0.51	0.07 -0.79	0.38 -0.16	0.99 -0.22	1.73 +0.22	1.98 +0.57	0.75 -0.71	10.16 -3.04

B. LIVESTOCK WATER TANKS

DISTRICT 29

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Adams Bros. Livestock Company #4558	Burns Canyon #2			2.5	2-16-50	
Adams Bros. Live. Company #4559	Burns Canyon #1			.2	2-16-56	
Adams, Lionel #9881	Adams #1	Squaw Creek	7.7	4.5	11-05-63	
Adams, T. Earl #3888	Adams #1			6.0	10-28-52	
Adams, T. Earl #4456	Adams #2			4.0	2-01-56	
Adams, T. Earl #4562	Adams #7			3.0	2-16-56	
Archuleta, L.M. #10784	L.M. Archuleta #1	Montezuma Cr.	15.0	5.0	9-02-65	
Archuleta, Lionel #7904	Archuleta #1			5.0	6-20-61	
Archuleta, Lionel M. #8044	Archuleta #2			2.5	8-07-61	
Bigbee Bros. Cattle Company #9026	Bigbee Bros.	Coyote Creek	14.7	9.0	8-16-62	
Bramwell, Carl #6023	Bramwell #1			.5	1-28-59	
Bramwell, Edwin J. #4782				.5	11-01-56	
Bramwell, Edwin J. #5737	Bramwell #2			3.0	8-22-58	
Bramwell, Frances #4782				.5	11-01-56	
Bramwell, Frances S. #5737	Bramwell #1,#2			3.0	8-22-58	
Bramwell, Minnie #6023	Bramwell #1			.5	1-28-59	
Bustos, Marcelino #10803	M. Bustos & J. Gonzales #1	Coyote Creek	10.0	1.0	9-09-65	
Candelaria, Ed. J. #3796	Candelaria #1			1.5	5-01-52	
Candelaria, Isaiah #3995	Candelaria #1			1.0	4-06-53	
Candelaria, Isaiah #3996	Candelaria #2			1.0	4-06-53	
Clark, Lloyd #3809	Clark #1			1.5	7-02-52	
Clark, Lloyd #3994	Clark #2			1.0	4-06-53	
Davis, Philip B. #9983	Philip Davis #1-63	McCabe Creek	11.0	6.0	11-26-63	

B. LIVESTOCK WATER TANKS

DISTRICT 29 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Davis, Philip Dr. #11098	Philip Davis Stockdam #8	McCabe Creek	9.0	1.0	8-10-66	
Davis, Philip B. & Harriett #11138	Philip Davis #1-66	McCabe Creek	12.0	5.0	9-22-66	
Davis, Philip B. & W. Harriett #11139	Philip Davis #2-66	McCabe Creek	15.0	1.0	9-22-66	
De Motte, Myrtle Est. #3787	De Motte			8.0	5-01-52	
Eoff, W. S. #11569	W.S. Eoff #1-67	San Juan	10.6	0.8	10-17-67	
Eoff, W. S. #12184	W.S. Eoff #1-69	Squaw Creek	5.0	1.0	1-07-70	
Espinosa, Enrique #4484	Espinosa #1				2-03-56	
Espinosa, Enrique #6335	Espinosa #1			1.5	7-16-59	
Espinosa, George #6335	Espinosa #1			1.5	7-16-59	
Forest Service U.S.D.A. #3195	Washington Flats			0.2	5-21-48	
Forest Service #3196	Stollsteimer			0.2	5-21-48	
Forest Service #6773	Longhorn Pit			0.5	1-25-60	
Forest Service #6777	Willow			4.0	1-25-60	
Forest Service #6778	Lakebed			5.0	1-25-60	
Forest Service #6780	Rincon			3.0	1-25-60	
Frazier, Walter #11391	Walter Frazier #1-67	San Juan	4.0	0.9	6-09-67	
Gallegos, Lee #9963	Lee Gallegos #1-63	Navajo	6.7	1.0	11-12-63	
Garcia, Joe & Valdez, Gilbert #9732	Valdez-Garcia Stock- Dam #63-1	San Juan	11.2	3.0	7-31-63	
Garcia, Joe & Valdez, Gilbert #9790	Valdez-Garcia Stockdam #2-63	San Juan	7.3	2.0	8-14-63	
Garcia, Joe & Valdez, Gilbert #9791	Valdez-Garcia Stockdam #3-63	San Juan	12.3	3.0	8-14-63	
Garcia, Joe & Valdez, Gilbert #9927	Valdez-Garcia Stockdam #4-63	San Juan	10.0	0.5	10-24-63	
Garcia, Joe I. #10629	Joe I. Garcia #1-64	Montezuma Cr.	7.3	3.5	1-07-65	

B. LIVESTOCK WATER TANKS

DISTRICT 29 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Garcia, Joe I. #10630	Joe I. Garcia #2-64	Montezuma Cr.	15.0	0.5	1-07-65	
Garcia, Joe I. #10631	Joe I. Garcia #3-64	Montezuma Cr.	15.0	1.6	1-07-65	
Garcia, Joe I. #10632	Joe I. Garcia #4-64	Montezuma Cr.	14.8	59.2	1-07-65	
Garcia, Joe I. #12146	Joe I. Garcia #1-69	Montezuma Cr.	5.9	2.5	11-03-69	
Gilbert, Stewart #11097	Stewart Gilbert #1-66	Devil Creek	3.2	3.2	8-10-66	
Goddard, George C. #4314	Goddard #2			0.8	9-02-54	
Gomez, Agapita G. Mrs. #3814	Gomez #1			5.0	7-03-52	
Gomez, J. Felix #4457	J.F. Gomez #1			1.5	2-01-56	
Gomez, J. Felix #4458	J.F. Gomez #2			0.5	2-01-56	
Gomez, J. Felix #10974	J. Felix Gomez #1-66	Gomez Canyon	7.0	0.5	4-20-66	
Gomez, J. Lino, Jr. #5364	J. Lino Gomez, Jr. #1			0.2	12-16-57	
Gomez, J. Lino, Jr. #5895	J. Lino Gomez, Jr. #2-58			1.5	11-14-58	
Gomez, J. Lino, Sr. #6623	J. Lino Gomez, Sr. #1			0.5	11-09-59	
Gomez, J. L., Sr. #12306	J.L. Gomez #1-70	San Juan	10.5	2.0	7-02-70	
Gonzales, Juvencio #10803	M. Bustos & J. Gonzales #1-65			1.0	9-09-65	
Goodman, David L. #5228	Goodman #1			0.2	9-10-57	
Grubb, Tom #11384	T.E. Grubb #1-67	Martinez Cr.	8.0	1.0	6-05-67	
Grubb, Tom #11385	T.E. Grubb #2-67	Martinez Cr.	15.0	2.0	6-05-67	
Hersch Invest. Co. #7536	Hersch #1			3.0	12-14-60	
Hersch Invest. Co. #7537	Hersch #3			4.0	12-14-60	
Hersch Invest. Co. #7546	Hersch #2			2.0	12-23-60	
Hyde, Bert #12174	Bert Hyde #1-69	Four Mile Cr.	4.0	0.5	12-03-69	
Keane Ranch #11118	Keane Ranch #1-66	Devil Creek	7.0	0.2	9-08-66	

B. LIVESTOCK WATER TANKS

DISTRICT 29(continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Keane Ranch #11119	Keane Ranch #2-66	Devil Creek	7.0	1.0	9-08-66	
King Arthur & Eula #6108	King #1			1.0	4-10-59	
Large, Carlos #4115	Carlos Large #1			1.5	11-04-53	
Lee, Luther #6661	Luther Lee #1			2.0	12-02-59	
Lynn, Joseph A., & Josephine & William P. #6808	Lynn #1-59			3.0	2-24-60	
Martinez, Porfirio R. #4027	Porfirio R. Martinez #1			0.5	10-08-53	
Mitchell, James R. & Mildred #4776	Mitchell #7			1.0	11-01-56	
Mitchell, James R. & Mildred #4777	Mitchell #1				11-01-56	
Mockler, Floyd S. #3343	Floyd S. Mockler #1			3.0	12-15-49	
Monfroy, Leon F. #4555	Mill Creek #1			0.2	2-16-56	
Munoz, Abencio #9284	Munoz #1	Cat Creek	7.6	6.0	1-08-63	
Nanninga, S.P. #5197	Nanninga #1			0.5	8-22-57	
Natay, Mary E. #6808 ** SAME AS LYNN	Lynn #1-59			3.0	2-24-60	
Nossaman, Tom B. #3680	Nossaman #1			2.0	6-28-51	
Oliver, Ann Yates #3991	Oliver #1			1.0	4-06-53	
Oliver, Ann Yates #3992	Oliver #2			3.0	4-06-53	
Oliver, Ann Yates #3993	Oliver #3			0.5	4-06-53	
Oliver, Ann Yates #7281	Perry #2			2.0	8-18-60	
Oliver, Ann Yates #7282	Bull Pasture #1			4.0	8-18-60	
Oliver, Ann Yates #9043	Davis #2-62	Devil Creek	7.3	8.0	9-07-62	
Oliver, Ann Yates #9044	Davis #1-62	Devil Creek	6.3	4.0	9-07-62	
Oppenheimer, Frank #4550	Oppenheimer #1			2.0	2-16-56	

B. LIVESTOCK WATER TANKS

DISTRICT 29(continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Perkins, Calvin #8226	Perkins #1			3.0	10-26-61	
Perkins, Calvin J. #5856	Perkins #1-58			7.0	11-07-58	
Perkins, Calvin J. #5857	Perkins #2			1.0	11-07-58	
Perkins, Calvin J. #5858	Perkins #3			2.0	11-07-58	
Perkins, Calvin J. #5859	Perkins #4			4.0	11-07-58	
Radcliff, C. Harold #6409	Radcliff #1			4.0	8-26-59	
Radcliff, Harold #6532	Radcliff #2			1.0	9-30-59	
Reed, James & Othelle #9186	Othelle Reed #2-62	Martinez Creek	8.3	4.0	11-29-62	
Reed, James & Othelle #9187	Othelle Reed #3-62	Martinez Creek	6.0	3.0	11-29-62	
Reed, James & Othelle #9966	O. J. Reed #1-63	Martinez Creek	8.5	0.8	11-12-63	
S. Ute Sheep Growers Ass'n. #3754	Upper Dipping Vat			4.5	11-06-51	
S. Ute Sheep Growers Ass'n. #3755	Lower Dipping Vat			4.5	11-06-51	
Saville, Gordon P. #11203	Gordon Saville #1-66	Four Mile Cr.	8.0	1.0	12-05-66	
Saville, Gordon #11204	Gordon Saville #2	Four Mile Cr.	8.0	1.0	12-05-66	
Schutz, Don W. #5722	Don Schutz #1			1.0	8-15-58	
Schutz, Harold #5722	Harold Schutz #1			1.0	8-15-58	
Schutz, Harold #9938	Harold Schutz #1-63	Navajo River	10.5	2.0	10-29-63	
Seavy, Morris #12371	Morris Seavy #1-70	Stollsteimer	2.0	0.5	10-20-70	
Seibel, Milton #4483	Seibel			5.0	2-03-56	
Snook, Elbert L. #4038	Snook #1			2.5	10-08-53	
Stephens, Dave #4788				1.0	11-14-56	
Stephens, Dave #4789				0.2	11-14-56	
Swanson, Mitchell O #3810	Swanson			1.0	7-02-52	

B. LIVESTOCK WATER TANKS

DISTRICT 29 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Swanson, Mitchell #12187	Mitchell Swanson #1-69	Squaw Creek	2.0	0.5	2-04-70	
Swanson, Mitchell #12188	Mitchell Swanson #2-69	Little Blanco	3.0	0.5	2-04-70	
Thomas, Ione & Walter #4556	Thomas #1			1.5	2-16-56	
Tiday, Ronald #8117	Tiday #1			1.0	9-15-61	
Tiday, Ronald #8118	Tiday #2			4.0	9-15-61	
Tiday, Ronald #8122	Tiday #3			0.5	9-15-61	
Tiday, Ronald #8123	Tiday #4			0.8	9-15-61	
Tiday, Ronald #8249	Tiday Stockdam #5			3.5	11-08-61	
Tiday, Ronald #8426	Tiday #6			0.5	1-29-62	
Tiday, Ronald #8427	Tiday Stockdam #7-61	Stollsteimer	9.4	1.5	1-29-62	
Trujillo, E. R. #11842	E.R. Trujillo #1-68	San Juan	7.9	0.5	10-16-68	
Tucker, R.C. #7433	Cap't. Beal #1			4.0	10-13-60	
Tucker, R. C. #7434	Tucker #2			1.0	10-13-60	
Tucker, R.C. #7435	Tucker #3			3.0	10-13-60	
USDA Forest Service #1995	Eight Mile Mesa #2			0.5	4-01-43	
USDA Forest Service #1996	Eight Mile Mesa #1			2.8	4-01-43	
USDAFS #1997	Trail			0.5	4-01-43	
USDAFS #2234	Valle Seco			1.2	3-03-44	
USDAFS #2235	Spence			0.5	3-03-44	
USDAFS #2236	Klutter Mt.			1.2	3-03-44	
USDAFS #2237	Jackson Mt.			0.8	3-03-44	
USDAFS #2238	Dutton Draw			1.0	3-03-44	
USDAFS #2239	Cade Mt.			1.0	3-03-44	

B. LIVESTOCK WATER TANKS .

DISTRICT 29 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #2243	Confer Park			1.5	3-03-44	
USDAFS #2488	Oil Well			3.5	3-20-45	
USDAFS #2244	Confer Hill #2			1.0	3-03-44	
USDAFS #2489	Turkey Nob			2.5	3-20-45	
USDAFS #2490	Corner			3.0	3-20-45	
USDAFS #2491	Spiler Park			6.0	3-20-45	
USDAFS #2492	Mill Creek			1.5	3-20-45	
USDAFS #2493	Fire Box			2.5	3-20-45	
USDAFS #2494	Sawmill			3.0	3-20-45	
USDAFS #2495	Cornish			5.0	3-20-45	
USDAFS #2496	Blue Mountain			5.0	3-20-45	
USDAFS #3767	Willow Draw			2.5	8-14-46	
USDAFS #3442	Trujillo			2.5	4-26-50	
USDAFS #3443	Montezuma			3.0	4-26-50	
USDAFS #3444	Glory			4.0	4-26-50	
USDAFS #3797	Freeman			0.2	5-01-52	
USDAFS #4153	East Lange			0.2	11-06-53	
USDAFS #4234	Porcupine			3.0	2-18-54	
USDAFS #4235	Sawmill			3.0	2-18-54	
USDAFS #4236	Spruce Canyon			3.0	2-18-54	
USDAFS #4237	Sheep Cabin			4.0	2-18-54	
USDAFS #4256	Washington Flats			1.0	7-06-54	
USDAFS #4342	Railroad			0.8	3-28-55	
USDAFS #4343	Coyote Protection Area			0.8	3-28-55	
USDAFS #4344	Wet Spring			1.0	3-28-55	
USDAFS #4382	Gopher				4-14-55	
USDAFS #4383	Oak Brush Hill				4-14-55	
USDAFS #4384	Little Blanco			0.2	4-14-55	
USDAFS #4431	Turkey Flat			0.2	1-27-56	
USDAFS #4538	Burro Park			0.5	2-16-56	
USDAFS #4539	Fence Corner			0.5	2-16-56	
USDAFS #4541	Wainright Draw			0.2	2-16-56	

B. LIVESTOCK WATER TANKS

DISTRICT 29 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #4542	Wainright Sp.			0.5	2-16-56	
USDAFS #4882	Middle Canyon			0.2	1-23-57	
USDAFS #5282	Sheep Cabin			2.0	10-10-57	
Valdez, Gilbert #7964	Valdez #1			3.0	7-07-61	
Valdez, Gilbert G. #3997	Valdez #1-53			0.8	4-10-53	
Valdez, Gilbert G. #4028	Valdez #1			0.8	10-08-53	
Valdez, Gilbert G. #4561	Montezuma #1			1.0	2-16-56	
Valdez, Joe A. #4791				0.2	11-14-56	
Valdez, Joe A. #4792				0.5	11-14-56	
Waggoman, R. B. #9069	R.B. Waggoman #1-62	Middle Fork	12.5	9.0	10-16-62	
Zesch, Kurt #5727	Zesch #1			2.0	8-15-58	

B. LIVESTOCK WATER TANKS

DISTRICT 30

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Barnes, P.H. & Son #12022	P.H. Barnes & Son #1-69	Florida River	5.3	0.2	7-03-69	
Bemenderfer, John R. #11705	John R. Bemenderfer #1-68	Animas River	8.0	2.0	5-13-68	
Blymiller, H. T. #11308	H.T. Blymiller #1-67	Spring Creek	10.9	0.6	3-27-67	
Boyles, C. M. #12377	C.M. Boyles #1-70	Cottonwood Cr.	15.0	5.0	10-23-70	
Brown, J.C. #7568	J.C. Brown #1			0.2	12-29-60	
Burrell, William #10785	Wm. Burrell #1-65	Florida River	11.0	2.0	9-02-65	
Carmichael, William #11350	William Carmichael #1-67	Florida River	4.0	0.1	5-04-67	
Carson, O. J. #850	O.J. Carson			3.5	10-14-41	
Champie, Channing #11716	Channing Champie #1-68	Florida	5.6	1.6	5-13-68	
Cook, Delbert #11715	Delbert Cook #1-68	Animas	8.5	0.5	5-13-68	
Craig, Perry #10995	Perry Craig #1-66	Florida	11.0	4.0	5-09-66	
Davis, Clarence H. #12029	Clarence H. Davis #1-69	Florida	8.0	2.0	7-07-69	
Davis, Clarence H. #12030	Clarence H. Davis #2-69	Florida	7.6	1.5	7-07-69	
Duncan, Raymond T. #11279	Raymond T. Duncan #1-67	Purgatory Cr.	8.0	3.0	3-03-67	
Duncan, Raymond T. #11374	Raymond T. Duncan #2-67	Purgatory Cr.	15.0	5.3	6-05-67	
Eagles, John #11797	John Eagles #1-68	Animas	11.0	6.0	9-09-68	
Eagles, John #11798	John Eagles #2-68	Animas	12.0	5.0	9-09-68	
Easter, L.B. #11882	L.B. Easter #1-68	Florida	13.5	4.0	12-11-68	
Ewing, W.D. #7581	Ewing #1			0.2	1-12-61	
Ewing, W.D. #7582	Ewing #2				1-12-61	
Ewing, W.D. #7583	Ewing #3				1-12-61	
Fleming, W.D. #11618	J.J. Kikel #2			0.5	11-29-67	
Folsom, Wade C. #3736	Spring Creek			9.0	11-02-51	

B. LIVESTOCK WATER TANKS

DISTRICT 30 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Harmon, Claude #11534	Claude Harmon #1-67	Salt Creek	7.5	0.5	9-28-67	
Hatch, Ira #10734	Ira Hatch #1-65	Animas	4.0	0.5	7-29-65	
Henderson, Zane E. #11735	Zane E. Henderson #1-68	Florida	11.0	4.0	5-31-68	
Hill, Robert C. #11772	Robert C. Hill #1-68	Animas	8.0	1.5	7-19-68	
Hoover, Charles P. #12321	Charles P. Hoover #1-70	Lightner Cr.	6.5	0.5	7-31-70	
Hurt, Oliver #10635	Oliver Hurt #1-64	Florida	11.5	1.0	1-07-65	
Isgar, Arthur #11189	Arthur Isgar #2-66	Sawmill Creek	10.0	1.0	11-16-66	
Isgar, Arthur #11206	Art Isgar #3-66	Animas	6.0	0.7	12-14-66	
Jefferson, James #11652	James Jefferson Cox Canyon	Animas	6.6	2.0	3-07-68	
Johansing; J-V Ranch #11883	J-V Ranch Lower Field #1-68	Florida	8.9	3.0	12-12-68	
Johansing; J-V Ranch #11884	J-V Ranch Middle Field #2-68	Florida	10.0	2.0	12-12-68	
Kikel, J.J. #11618	J.J. Kikel #2-67	Animas	4.0	0.6	11-29-67	
Kikel, Joe J. #12170	Joe J. Kikel #1-69	Animas	7.7	3.0	12-03-69	
Kikel, J.J. #11579	J.J. Kikel #1-67	Animas	15.0	1.0	10-23-67	
Kikel, J.J. #11580	J.J. Kikel, #2-67	Animas	13.0	0.8	10-23-67	
Kikel, J.J. #11187	J.J. Kikel, #1-66	Animas	14.0	1.0	11-16-66	
Kikel, J.J. #10802	J.J. Kikel #2-65	Basin Creek	7.0		9-09-65	
Kikel, Joe #10801	Joe Kikel #1-65	Basin Creek	12.0		9-09-65	
Martin, R. M. #10849	R.M. Martin #1-65	Florida	9.0	1.5	11-08-65	
Mason, Lloyd & Mary #4143	Mason #1			2.5	11-06-53	
Mayben, Scott G. #11156	S.G. Mayben #1-66	Salt Creek	4.6	2.0	10-04-66	
Mc Culloch, Robert #8217	Mc Culloch			4.5	10-26-61	
McEwen, L. H. #10879	L.H. McEwen #1-65	Florida	4.5	1.0	12-16-65	

B. LIVESTOCK WATER TANKS

DISTRICT 30 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Milligin, Louis H. #11519	Louis H. Milligin #1-67	Animas	11.4	2.0	9-28-67	
Montgomery, R. C. #11056	R.C. Montgomery #2-66	Salt Creek	10.9	2.5	7-12-66	
Palmer, S.B. #7264	Fancy #1			0.2	8-18-60	
Paulek, Fred #11108	Fred Paulek #1-66	Animas	7.0	1.0	8-23-66	
Richardson, Orin #12189	Orin Richardson #1-69	Florida	5.5	0.5	2-16-70	
Richardson, Orin #12191	Orin Richardson #3-69	Florida	13.8	0.7	2-16-70	
Richardson, Orin #12190	Orin Richardson #2-69	Florida	1.9	0.25	2-16-70	
S. Ute Cattle. & Hrse. Grwrs. An. #3748	Mesa Mtn. Tank #1			0.5	11-06-51	
S. Ute Cattle. & Hrs. Grwrs. An. #3749	Mesa Mtn. Tank #2			3.5	11-06-51	
S. Ute Cattle. & Hrse. Grwrs. An. #3750	Mesa Mtn. Tank #3			1.2	11-06-51	
Sherwood, Patricia #11583	Smith Lake Enlge.	Animas	12.6	9.0	10-30-67	
Simmons, K. B. #11707	K.B. Simmons #1-68	Animas	9.7	1.0	5-13-68	
Simmons, K.B. #11964	K.B. Simmons #2-69	Florida	2.0	0.5	4-28-69	
Smith, Milo #11116	Milo Smith #2-66	Florida	8.7	0.5	9-01-66	
Tanner, R. L. \$2727	Tanner #1			10.0	5-17-46	
Taylor, Frank Est. #11520	Frank Taylor Est. #1-67	Florida	4.3	0.2	9-28-67	
Taylor, Frank Est. #11521	Frank Taylor Est. #2-67	Florida	9.0	0.5	9-28-67	
Terrell, Frank #9581	Frank Terrell #1-63	Florida	9.5	1.0	5-13-63	
Thompson, Chester E. #2948	Thompson			1.0	8-27-47	
Trujillo, George #10676	George Trujillo #1-65	Florida	3.0	0.7	7-06-65	
Tucker, Vick S. #7252	Tucker #1			0.5	8-18-60	
Tyner, Holly #11800	Holly Tyner #1-68	Florida	7.0	2.5	9-09-68	
USDAFS #4407	Grady			1.0	10-21-55	
USDAFS #7593	Deer Park			2.0	2-28-61	

B. LIVESTOCK WATER TANKS

DISTRICT 30 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Vinnell, Allan S. #11883 & #11884 SAME AS J-V RANCH	Lower Field #1 Middle Field #2			3.0	12-12-63	
Walker, Edgar #11179	Edgar Walker #1-66	Florida	15.0	3.0	11-03-66	
Walker, Merle #10604	Merle Walker #1-64	Florida	14.2	1.7	12-14-64	
Walker, Merle #10911	M.L. Walker #1-66	Florida	7.0	0.5	1-18-66	
Walker, Merle #10912	M.L. Walker #2-66	Florida	10.5	2.0	1-18-66	
Walker, Merle #10913	M.L. Walker #3-66	Florida	10.0	2.0	1-18-66	
Walker, Merle #10914	M.L. Walker #4-66	Florida	7.0	2.0	1-18-66	
Warner, A. W. #12181	A.W. Warner #1-70	Animas	15.0	10.0	12-15-69	

B. LIVESTOCK WATER TANKS

DISTRICT 31

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Batill, Julius A. #10667	Julius A. Batill #1-65	Beaver Creek	10.0	8.0	6-21-65	
Boone, Ben #11743	Ben Boone #1-68	Green Canyon	12.0	1.0	6-19-68	
Cruz, Joe #11000	Joe Cruz #1-66	Cruz Draw	15.0	2.5	5-20-66	
Cundiff, Theo #12121	Theo Cundiff #1-69	Crobar Creek	5.0	0.5	9-18-69	
Evarts, Kathryn #11971	Kathryn Evarts Bellflower #1-69	Beaver Creek	9.0	0.2	5-07-69	
Evarts, Kathryn #11972	Kathryn Evarts Bellflower #2-69	Beaver Creek	6.0	0.5	5-07-69	
Fisher, Earl #12040	Fredrick #1-69	Dry Creek	6.0	0.2	7-14-69	
Fisher, Earl #12041	Frederick #2-69	Dry Creek	15.0	2.0	7-14-69	
Hatch, Ira #12031	Ira Hatch #1-69	Pine River	5.7	0.2	7-07-69	
Herrera Bros. #11152	Herrera Bros. #1-66	Pump Canyon	14.0	2.0	10-03-66	
Jacquez, Raymond #9619	Ray Macquez #1-63	Pine River	7.6	1.5	6-05-63	
Jeffries, Harold V. #12219	Harold V. Jeffries #1-70	Beaver Creek	9.7	4.0	3-27-70	
Knutson, Dennis #9470	Dennis Knutson #1-63	Spring Creek	9.8	1.7	3-29-63	
Mattox, Albert #11099	Albert Mattox #1-66	Pine River	8.0	1.5	8-16-66	
R & M Engerprize #11407	R & M Enterprize #1-67	Pine River	10.0	0.2	6-15-67	
Rathjen, L. G. #4906	Rathjen			1.0	1-28-57	
Sisk, Dean #11986	Dean Sisk #1-69	Pine River	6.6	0.3	5-23-69	
Sisk, Dean #12349	Dean Sisk #1-70	Beaver Creek	6.9	2.0	9-16-70	
S. Ute Tribe #6218	Pump Canyon #1			0.8	5-28-59	
S. Ute Tribe #6219	Pump Canyon #2			1.0	5-28-59	
S. Ute Tribe #6220	Pump Canyon #3			1.5	5-28-59	
S. Ute Tribe #6221	Pump Canyon #4			0.8	5-28-59	
Strain, Oscar G. #10672	Oscar Strain #1-65	Pine River	10.4	0.2	7-06-65	
Stranich, M.J. #12220	M.J. Stranich #1	Salt Creek	6.0	1.0	3-27-70	

B. LIVESTOCK WATER TANKS

DISTRICT 31 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
U.S. Forest Service #3495	Sauls Creek #1			3.0	5-05-50	
US. D.A.F.S. #3496	Sauls Creek #2			2.5	5-05-50	
U.S.D.A.F.S. #2240	Spring Creek			0.5	3-03-44	
USDAFS #2241	Ute Creek #2			0.2	3-03-44	
USDAFS #2242	Ute Creek #1			0.2	3-03-44	
USDAFS #3798	Goat Corral			2.2	5-01-52	
USDAFS #3802	Trail Canyon #2			2.5	5-14-52	
USDAFS	Zabel Canyon			1.0	10-28-52	
USDAFS #3886	South Park			3.0	10-28-52	
USDAFS #3998	Spring Creek #2			0.5	4-10-53	
USDAFS #3999	Sauls Creek #4			1.0	4-10-53	
USDAFS #4000	Spring Creek #3			1.0	4-10-53	
USDAFS #4128	Mud Canyon			0.5	11-04-53	
USDAFS #4154	Hayden #1			0.5	11-06-53	
USDAFS #4155	Pole Canyon			0.8	11-06-53	
USDAFS #4192	Ute Creek #3			0.8	1-12-54	
USDAFS #4282	Cherry Canyon			1.0	8-24-54	
USDAFS #4284	Sauls Creek #6			0.5	8-24-54	
USDAFS #4372	Robinson Canyon			0.5	4-14-55	
USDAFS #4518	Ignacio				2-14-56	
USDIBLM #9459	Ed Kaime Retention Dam C4-R-181	Los Pinos	9.4	1.0	3-08-63	
Wommer, Ed. #11069	Ed Wommer #1-66	Bear Creek	15.0	1.5	7-20-66	
Wommer, Ed. #11096	Ed Wommer Griffin Homestead Site #3	Bear Creek	14.5	8.0	8-10-66	
Wommer, Ed. #11115	Ed. Wommer #4-66 Wonder	Beaver Creek	10.0	9.5	9-01-66	
Wommer, Ed. #5204	Wommer			4.0	9-10-57	
Wommer, Ed. #11117	Sawmill Site #2-66	Bear Creek	10.9	1.5	9-08-66	
Wommer, Martha #4528	Martha B. Wommer			2.0	2-15-56	
Wommer, Martha #4529	Martha B. Wommer			2.0	2-15-56	

DISTRICT 46

Young, Vernon #4903	Young #1			1.5	1-23-57	
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B. LIVESTOCK WATER TANKS

DISTRICT 32

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Acree, Jack #10585	Jack Acree #1-64	Cahone Canyon	10.7	5.0	12-14-64	
Adams, Lloyd #9148	Lloyd Adams #1-62	Chico Creek	9.2	3.0	11-14-62	
Adams, Lloyd #9265	Lloyd Adams #2-62	Monument Cr.	6.5	1.5	12-31-62	
Adams, Lloyd #9266	Lloyd Adams #5-62	Dove Creek	7.8	1.5	12-31-62	
Akin Bros. #2874	Akin Bros. #3			0.5	7-18-47	
Akin Bros. #2875	Akin Bros. #2			0.8	7-18-47	
Akin Bros. #2876	Akin Bros. #1			0.8	7-18-47	
Allen, David #4131	Allen #1			2.0	11-05-53	
Allen, David #4132	Allen #2			2.0	11-05-53	
Allen, Whetsel #11877	North Reservoir #1	McElmo Creek	6.6	3.0	12-06-68	
Anderson, Otto #6217	Anderson #1			8.0	5-28-59	
Anderson, Otto R. #4601	Anderson			10.0	5-07-56	
Aulston, Joe #6355	Aulston #1			2.0	7-29-59	
Aulston, Joe #11522	Joe Aulston #1-67	Ruins Canyon	12.0	3.0	9-28-67	
Aulston, John #3917	Aulston			3.0	10-30-52	
Aulston, John #5179	Aulston #2			3.0	8-12-57	
Ayers, Clyde #9058	Clyde Ayers #2-62	Cross Canyon	13.0	4.0	9-13-62	
Ayers, David #11379	David Ayers #1-67	Chico Creek	8.0	2.5	6-05-67	
Baird, Ed. #2332	Baird			2.0	8-08-44	
Baird, Robert #2331	Baird			2.0	8-08-44	
Baker, W.A. #2117	Baker			3.0	10-11-43	
Baker, W.A. #2811	Baker			2.0	4-01-47	
Barr, Donald A. #11305	Donald A. Barr #1	Mc Elmo Cr.	6.0	2.0	3-23-67	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Bass, Jim #6958	Bass #1			7.0		5-19-60
Bass, Jim #10518	Jim Bass #1-64	Mc Elmo Creek	7.0	5.0		10-01-64
Baze, Lloyd #6412	Baze #1			7.5		8-26-59
Baze, Lloyd #12027	Lloyd Baze #1-69	Chico Creek	10.0	3.5		7-07-69
Baze, Lloyd #12028	Lloyd Baze #2-69	Chico Creek	11.5	4.5		7-07-69
Beardslee, Jr., Louis #12370	Louis Beardslee Jr. #1-70	Mc Elmo	10.0	5.0		10-20-70
Bickerton, R.W. #2370	Bickerton			3.0		9-15-44
Bickerton, R.W. #3433	Bickerton #2			4.0		4-14-50
Black Jr., Albert L. #9870	W.W. Stringer #1	Dove Creek	8.5	3.0		9-27-63
Black, Marshal J. #12001	M.J. Black #1-69	Sand Canyon	12.0	5.0		6-19-69
Blackmer, Fred #12151	Fred Blackmer #1-69	Hartman Draw	8.0	1.5		11-10-69
Blandford, John #6134	Blandford #1			4.0		4-10-59
Bradfield, C.E. #3957	Bradfield			3.0		12-09-52
Brewer, Clifford #9157	Clifford Brewer #1	Chico Creek	12.7	2.0		11-14-62
Brewer, Clifford #9158	Clifford Brewer #2	Chico Creek	13.4	4.0		11-14-62
Brewer, Fred E. #1654	Brewer #1			1.5		10-21-41
Brewer, Fred E. #1984	Brewer			2.0		3-15-43
Brewer, Stanley #11732	Stanley Brewer #1	Cross Canyon	10.0	2.0		5-31-68
Brewer, Stanley #11996	Stanley Brewer #1	Squaw Canyon	11.0	2.0		6-11-69
Broderick, Case #4896	Broderick #1			8.0		1-23-57
Byrum, John #6436	Byrum #1			8.0		8-27-59
Calhoon, Clarence #8351	Calhoon #1			4.0		12-06-61
Carhart, Ross O. #9171	Ross Carhart #1	Monument Cr.	8.0	5.0		11-20-62

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Carvell, Jennie #8835	Carvell #1			3.0	5-11-62	
Caughran, L.C. #2102	Caughran			0.5	9-08-43	
Caughran, L.C. #2328	Caughran #1			2.5	7-28-44	
Caughran, L.C. #2329	Caughran #2			2.5	7-28-44	
Cellar, Robert B. #6446	Cellar #1			2.5	8-27-59	
Cleaveland, Fred #2850	Cleaveland			3.0	6-06-47	
Cline, Fred A. #11840	Fred A. Kline, Hovenweep #1-68	Hovenweep Can.	14.5	6.5	10-09-68	
Cline, J. H. #6085	Enlargement #1			2.0	3-23-59	
Coffey, Floyd #9659	Floyd Coffey #1	Cross Canyon	8.0	2.0	6-20-63	
Coffey, Floyd #10670	Floyd Coffey #1-65	Cross Canyon	8.0	2.5	7-06-65	
Coffey, Odell #2077	Coffey			3.0	8-24-43	
Coffman, Morton #7356	Coffman #1			2.0	9-15-60	
Conklin, T.N. #2883	Conklin			2.0	7-21-47	
Conn, Homer #5936	Conn #1			1.0	12-10-58	
Conn, Homer #5937	Conn #2			1.5	12-10-58	
Cornett, H.L. #6179	Cornett #3			3.0	4-29-59	
Cornett, H.L. #6180	Cornett #4			2.0	4-29-59	
Cornett, H.L. #7392	Lone Cedar			3.0	9-21-60	
Cornett, H.L. #7393	Hidden #5			2.0	9-21-60	
Cornett, H.L. #7538	Little Jim #7			1.5	12-14-60	
Cornett, H.L. #9853	H.L. Cornett #1-63	Mc Elmo Cr.	6.8	3.0	9-16-63	
Cornett, H.L. #11615	Kernen #1-67	Mc Elmo Cr.	7.0	2.0	11-29-67	
Cornett, Joe #6484	Cornett #1			3.0	9-17-59	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Cox, Gene #7552	Cox #1			3.2	12-23-60	
Cracy, Charley #11351	Charley Tracy #1			3.0	5-04-67	
Cracy, Charley	Charley Tracy #1	REPEAT				
Crain, Lester #7865	Crain #1			1.5	5-26-61	
Crapo, Stanley #6040	Crapo			2.0	2-03-59	
Crawford, Jess #10423	Jess Crawford #1	Yellowjacket	11.0	4.0	7-24-64	
Crawford, Jesse #4194	Crawford			6.0	1-12-54	
Cresto, T. A. #6065	Cresto #5			1.5	2-27-59	
Cresto, T.A. #6066	Cresto #6			1.0	2-27-59	
Crowse, Fred #12231	Fred Crowse #1-70	Hartman Draw	10.0	2.0	4-09-70	
Dalrymple, Daniel P. #6894	Dalrymple #1			3.0	4-20-60	
Dalrymple, Daniel P. #11721	Daniel P. Dalrymple #1-68	Coal Bed Creek.	12.0	8.0	5-20-68	
Dalton, Melvin #11077	Melvin Dalton #1	Monument Cr.	6.0	2.0	7-27-66	
Dalton, Melvin #11680	Melvin Dalton #1-68	Willow Creek	11.0	3.0	4-04-68	
Dalton, Melvin K. #12286	Melvin K. Dalton #1-70	San Juan Coal Bed	8.0	5.0	6-18-70	
Darland, Delbert D. #6898	Darland #1			2.0	4-20-60	
Daughetee, J.C. #51	Daughetee			0.5	7-16-41	
Daves, James #11734	James Daves #1-68	Coal Bed Cr.	12.0	8.0	5-31-68	
Davis, Robert D. #11082	Robert D. Davis #1	Cross Canyon	10.0	2.0	7-29-66	
Davis, Robert D. #11083	Robert D. Davis #2	Cross Canyon	13.0	7.5	7-29-66	
Davis, W. G. #11620	Grant Davis #1-67	Cross Canyon	15.0	6.0	12-01-67	
Davis, Willis G. #2921	Davis			2.0	7-28-47	
Davison, Smith #4591	Davison			5.0	4-24-56	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Deremo, Clyde #4928	Deremo #2			5.0		2-20-57
Dickinson, Clyde #9621	Wayne Harlow #1-63	Coal Bed Cr.	10.0	4.0		6-05-63
Dobbins, Arthur M. #11011	Arthur M. Dobbins #1	Trail Canyon	6.0	0.2		6-06-66
Dobbins, Hall #8806	Wild Horse #1-62	Trail Canyon	8.8	2.0		5-02-62
Donalson, Jr. O.M. #12268	O.M. Donalson #1-70	Alkali Canyon	7.0	3.0		6-01-70
Doyel, Raymond #6536	Doyel #2			2.5		9-30-59
Doyel, Raymond #6663	Doyel #3			3.0		12-02-59
Dunbar, C.N. #4684	Dunbar #1			5.0		7-27-56
Dunbar, John L. #2308	Dunbar			4.0		7-17-44
Duncan, Lem #5441	Duncan #2			2.0		2-21-58
Duncan, Lem #5442	Duncan #1			2.0		2-21-58
Eggers, C.F. #7192	Eggers #1			6.0		7-21-60
Englehart, Charles #6242	Englehart #1			2.0		6-11-59
Espinoza, Joe F. #10192	Joe F. Espinoza #1	Mc Elmo Cr.	9.0	2.0		4-24-64
Ferando, Elmer #6931	Ferando #1			1.0		5-11-60
Ferando, Elmer #8401	Elmer Ferando #1-61	Yellowjacket	8.0	5.0		12-29-61
Ferguson, W.I. #3959	Ferguson			2.0		12-09-52
Ferguson, W.I. #4404	Ferguson			7.0		10-21-55
Fleming, W.D. #11619	W.D. Fleming #1	Cross Canyon	6.2	1.5		12-01-67
Floyd, Jerome #3815	Floyd			2.0		7-03-52
Forest, Carl #9903	Carl Forest #1-63	Narraquinnep Draw	3.5	0.8		11-05-63
Fox, Milton #5143	Fox			2.0		7-02-57
Fulks, J.A. #11303	J.A. Fulks #1	Coal Bed Cr.	6.0	2.0		3-23-67

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Fulks, Lloyd #12104	Lloyd Fulks #1	Alkali Canyon	8.0	2.0	9-04-69	
Fulks, Joe #12148	Joe Fulks #1-69	Goodman Canyon	9.0	6.0	11-03-69	
Fury, Frank #2109	Fury			2.5	10-01-43	
Fury, Joe #6375	Fury #1			9.0	7-29-59	
Fury, Paul #3310	Fury #1			3.0	12-02-49	
Fury, Paul #3311	Fury #2			7.0	12-02-49	
Gallegos, Willie #10143	Willie Gallegos #1	Mc Elmo Cr.	6.0	1.0	3-23-64	
Gano, Vernon #7347	Gano #1			4.0	9-09-60	
Garchar, John #2005	Garchar			3.0	5-06-43	
Gardner, Robert #11690	Robert Gardner #1	Hovenweep	7.0	2.0	4-10-68	
Garland, Edgar #7311	Garland #1			3.0	8-23-60	
Gawith, L.E. #7529	Gawith #1			1.0	12-14-60	
Gawith, L.E. #7530	Gawith #2			0.8	12-14-60	
Geisinger, Clifford #11055	Clifford Geisinger #1-66	Coal Bed Cr.	9.5	4.0	7-12-66	
Gift, T.R. #4002	Gift			2.0	4-10-53	
Gilmore, Don #11057	Don Gilmore #1	Nigger Canyon	6.0	3.0	7-12-66	
Glazner, Winnie #9563	John Glazner #1	Cahone Canyon	11.2	3.0	4-30-63	
Goff, Charles #11854	Chas. O. Goff, George #1-68	Mc Elmo Cr.	6.0	1.0	10-23-68	
Grabeel, Everett #4582	Grabeel			3.0	4-16-56	
Greenlee, George W. #8195	Greenlee #1			3.0	10-26-60	
Greenlee, George W. #11287	George W. Greenlee #1-67	Mc Elmo Cr.	10.0	3.0	3-13-67	
Greenlee, George #11742	Geo. W. Greenlee Spiller #1	Mc Elmo Cr.	8.0	1.5	6-19-68	
Greenlee, Harold #8825	Greenlee #1			2.5	5-02-62	

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B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Griffith, S.C. #3848	Griffith #1			3.0	7-07-52	
Hammond, Roy #4354	Hammond #1			4.0	4-05-55	
Hampton, R.J. #1736	Aztec			1.0	4-07-42	
Hancock, Allen #7052	Hancock #1			2.5	6-29-60	
Hancock, Ivan #7089	Hancock #1			4.0	6-29-60	
Hankins, Sam #7803	Hankins #1			2.0	5-08-61	
Hankins, Sam #11378	Sam Hankins #2	Chico Cr.	6.0	2.0	6-05-67	
Hankins, Sam #11704	Sam Hankins #1-68	Coal Bed Cr.	12.0	6.0	5-13-68	
Harrison, Guy O. #9138	Lloyd Baze #1-62	Coal Bed Cr.	5.0	3.0	10-29-62	
Harrison, Guy O. #9156	Lloyd Baze #2-62	Coal Bed Cr.	6.1	1.5	11-14-62	
Hatfield, Chas. O. #2108	Hatfield			2.5	10-01-43	
Hazelwood, Earl #11330	Earl Hazelwood #1	Alkali Cr.	7.0	1.0	4-21-67	
Hazelwood, Earl #11331	Earl Hazelwood #2	Alkali Cr.	8.0	2.0	4-21-67	
Heaton, Walter #5336	Heaton			2.0	11-20-57	
Heaton, Walter #5924	Heaton #2			1.5	12-01-58	
Hefner, Charles \$4607	Hefner			6.0	5-01-56	
Herrmann, Bobby #12246	Bobby Hermann #1	Little Cahone Canyon	7.0	2.0	5-07-70	
Herron, George #4580	Herron			3.0	4-16-56	
Higgins, A.D. #5636	Higgins #1			2.0	6-30-58	
Higgins, Millard #6298	Higgins #1			2.0	6-30-59	
Higgins, Millard #6299	Higgins #2			2.0	6.3-059	
Hill, L.V. #6598	Hill #1			9.0	10-29-59	
Hindmarsh, Stanley & Russell #12175	Russel Hindmarsh #1	Mc Elmo Cr.	7.0	1.0	12-03-69	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Hodson, Arthel #7903	Hodson #1			2.5	6-20-61	
Hodson, W. A. #8836	Hodson #1			1.5	5-11-62	
Holiday, Tobe #4440	Holiday			3.0	1-27-56	
Hopperton, Kenneth #8274	Hopperton #1-61	Mc Elmo Cr.	9.4	4.0	12-06-61	
Hopperton, Kenneth #9038	K.R. Hopperton #2	Mc Elmo Cr.	15.0	9.0	8-24-62	
Hopperton, Kenneth #9509	Kenneth Hopperton #3-63	Mc Elmo Cr.	15.0	6.0	4-10-63	
Hopperton, Kenneth #12172	Kenneth Hopperton #4-69	Mc Elmo Cr.	12.7	8.0	12-03-69	
Hudgeons, Glen #8837	Hudgeons #1			2.0	5-11-62	
Hudgeons, Glen C. #6352	Hudgeons #1			4.0	7-29-59	
Hughes, Howard #11047	Howard Hughes #1	Cahone Canyon	10.0	4.0	7-05-66	
Hughes, W. T. #3197	Hughes			2.0	5-21-48	
Humphreys, R.P. #7261	Humphreys #1			4.0	8-18-60	
Hunter, Jack D. #11068	Jack D. Hunter #1	Sharps Cr.	14.0	6.0	7-20-66	
Huskey, Archie #11008	Archie Huskey #1	Squaw Creek	6.0	3.0	6-06-66	
Jackson, Thomas #4583	Jackson			6.0	4-16-56	
Jackson, Thomas #6951	Jackson #1			6.0	5-19-60	
Jackson, Thomas #6952	Jackson #2			1.5	5-19-60	
Jackson, Thomas #6988	Jackson #3			5.0	6-01-60	
Jackson, Thomas #7906	Jackson #1			6.0	6-20-61	
Jackson, Thomas #9909	Thomas Jackson #1	Cross Canyon	7.0	1.5	11-05-63	
James, A.L. #4134	James			4.0	11-05-53	
James, A.L. #6367	James #1			8.0	7-29-59	
Jeter, Dale #6341	Jeter #1			2.0	7-16-59	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Jobes, Harry S. #3737	Jobes			10.0	11-02-51	
Johnson, Charles #7112	Johnson #5			2.0	7-19-60	
Johnson, Dean #5854	Johnson #1			3.0	11-06-58	
Johnson, Eugene F. #12100	Eugene F. Johnson #1-69	Cahone Canyon	11.7	5.0	8-28-69	
Johnson, Eugene O. #2132	Johnson			2.0	10-28-43	
Johnson, Eugene O. #2405	Johnson #2			2.5	12-12-44	
Johnson, Floyd #4332	Johnson			8.0	3-25-55	
Johnson, H.E. #6823	Johnson #1			8.0	3-09-60	
Johnson, J.P. #7048	Johnson #1			1.5	6-29-60	
Julian, James H. #6938	Julian #1			1.0	5-11-60	
Kell, Jim #3816	Kell			2.0	7-03-52	
Knuckles, Doyel #11180	Doyel Knuckles #1	Wilson Draw	14.0	7.0	11-09-66	
Knuckles, Doyle #4603	Knuckles			2.5	5-07-56	
Knuckles, Doyle #6271	Knuckles #1			4.0	6-11-59	
Knuckles, Glenn #5968	Knuckles #1			1.5	12-15-58	
Knuckles, Glenn #5969	Knuckles #2			3.0	12-17-58	
Knuckles, Glenn #5970	Knuckles #3			1.0	12-17-58	
Knuckles, Glenn #6191	Knuckles #1			1.5	5-11-59	
Knuckles, Glenn #12195	Glenn Knuckles #1	Chico Cr.	10.0	5.0	2-24-70	
Krater, Frank #5680	Krater #2			2.0	7-21-58	
Kuykendall, F.E. #11516	F.E. Kuykendall #1	Willow Cr.	11.0	4.0	9-28-67	
Legg, Leonard #8801	Legg #1			2.0	5-02-62	
Lewis, Orville #11604	Orville Lewis #1	Sandstone Can.	9.5	2.5	11-29-67	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Little, John M. #3308	Little			3.0	12-02-49	
Mahaffey Bros. #10050	Mahaffey Bros. #1	Narraguinnep Draw	5.0	1.5	1-13-64	
Mahon, G. L. #2944	Mahon #1			0.5	7-29-47	
Mahon, G.L. #4543	Mahon			4.0	2-16-56	
Martin, John #2127	Martin			4.0	10-20-43	
Martin, John #4659	Martin			2.0	6-28-56	
Martin, John #4660	Martin			3.0	6-28-56	
Martin, John #7954	Martin #2			2.5	7-07-61	
Martin, John #7968	Martin #1			0.8	7-07-61	
Martin, John #8097	Martin #3			4.0	9-15-61	
Maslen, Claude #6287	Maslen #1			9.0	6-29-59	
Mathias, Harold #9053	H.L. Mathias #1	Mc Elmo Cr.	9.9	1.5	9-11-62	
McCabe H.R. #5979	McCabe #1			2.0	12-17-58	
McCabe W.R. & Son #6962	McCabe #1			2.0	5-27-60	
McCormick, Wm. R. #3146	McCormick			1.5	3-25-48	
McDonald Joseph #7378	McDonald #1			1.5	9-16-60	
McComb, Charles #11801	Charles, McComb #1-68	Negro Canyon	9.5	4.5	9-09-68	
McComb, Charles #11802	Charles McComb #2	Negro Canyon	12.5	2.0	9-09-68	
McEwen, Noel A. #6184	McEwen #1			2.0	4-29-59	
McQuaid, Don #6211	McQuaid #1			1.5	5-28-59	
Mellott, Nathan #5723	Mellott #1			3.0	8-15-58	
Mellott, W.P. #5547	Mellott			3.0	5-22-58	
Milhoan, Homer #4590	Milhoan			5.0	4-16-56	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Mohler, Kenneth R. #10955	Kenneth R. Mohler Bar J #1	Mc Elmo Cr.	4.0	1.2	4-05-66	
Mohler, Kenneth R. #11257	Kenneth R. Mohler #2-66	Mc Elmo Cr.	5.5	1.0	2-02-67	
Murphy, Edmund L. #12002	E.L. Murphy #1-69	Little Cahone	14.0	6.0	6-19-69	
Neely, Ivan #11914	Ivan Neely #1	Sharps Creek	14.0	8.5	3-06-69	
Neely, Leonard #11319	Leonard Neely #1	Sharps Creek	15.0	8.5	4-18-67	
Neely, Ralph #12305	Ralph Neely #1	Alkali Cr.	8.0	3.5	7-02-70	
Neely, Renay #7025	Neely #1			3.5	6-29-60	
O Shaughnessy, John #155	O Shaughnessy			0.5	7-21-41	
Oliver, H. E. #5208	Oliver			4.0	9-10-57	
Oliver, Harvey Jr. #10336	Harvey Oliver #1	Yellowjacket	4.2	4.0	6-25-64	
Oliver, Troy #10431	Troy Oliver #1-64	Yellowjacket	6.7	2.0	8-03-64	
Oliver, Troy #11191	Troy Oliver #1-66	Goodman Draw	6.0	3.0	11-17-66	
Olson, William A. #9188	William Olson #1	Hartman Draw	5.4	1.0	11-29-62	
Payne, John #4525	Payne			3.0	2-15-56	
Perkins, Fred #5698	Perkins #1			2.5	8-05-58	
Perkins, L.W. #4633	Perkins			3.0	6-18-56	
Perkins, Lincoln W. #5078	Perkins			3.0	5-13-57	
Perkins, Lincoln W. #5882	Perkins #1			8.5	11-10-58	
Perkins, Marcus #4902	Perkins #1			3.0	1-23-57	
Perkins, Ray #6755	Perkins #1			2.0	1-14-60	
Perkins, Ray #6756	Perkins #2			1.8	1-14-60	
Perkins, Raymond #5198	Perkins			3.0	8-22-57	
Petrose, Tony #6076	Petrose #1			2.0	3-12-59	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Posey, J.I. #7373	Wright & Posey #1			6.0	9-16-60	
Poulaki, James #8216	Poulaki #1			2.0	10-26-61	
Powell, C.T. #7785	Powell #1			3.0	4-19-61	
Pribble, Ursel #6381	Pribble #1			2.0	7-29-59	
Pribble, Ursel #6517	Pribble #2			2.0	9-18-59	
Pribble, Ursel #7925	Pribble #1			2.0	6-20-61	
Pribble, Ursel #11855	Ursel Pribble #1	W. Monument Cr.	12.0	6.0	10-24-68	
Pribble, Ursel #12207	Ursel Pribble #1	Monument Cr.	6.0	2.0	3-06-70	
Prowse, Fred E. #11382	Fred E. Prowse #1	Alkali Canyon	7.0	2.0	6-05-67	
Ragsdale, G.S. #4159	Ragsdale			4.0	11-06-53	
Randol, Charles #10494	Charles Randol #1	Hartman Draw	8.0	6.0	10-01-64	
Randol, Charles #11799	Charles Randol #1	Sandstone Can.	12.0	7.5	9-09-68	
Randol, Joe #11595	Joe Randol #1	Sandstone Can.	9.1	7.5	11-29-67	
Randol, L.J. #4195	Randol			8.0	1-12-54	
Randolph, Arnold #10976	Arnold Randolph #1	Chico Creek	12.0	4.0	4-21-66	
Randolph, Kenneth #8032	Randolph #1			7.0	7-31-61	
Randolph, Kenneth #8033	Randolph #2			1.0	7-31-61	
Randolph, Kenneth #10933	Kenneth Randolph #1-66	Wilson Draw	15.0	8.0	3-23-66	
Redd, Alma J. #11946	A.J. Redd #1-69	Moccasin Can.	10.0	2.0	4-02-69	
Reed, Clarence #4136	Reed			4.0	11-05-53	
Reed, Clarence #5173	Reed			4.0	8-12-57	
Retherford, Emry #2838	Retherford			0.5	4-16-47	
Retherford, Emry #3938	Retherford			3.0	12-05-52	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Retherford, Roy #8576	Roy Retherford Peewee #1-62	Mc Elmo Cr.	7.0	1.0	4-02-62	
Retherford, Roy #8577	Roy Retherford #1	Little Water Creek	6.0	2.0	4-02-62	
Retherford, Roy #8578	Roy Retherford #2	Little Water	4.8	1.0	4-02-62	
Ritter, John #9600	John Ritter #1	Mc Elmo Cr.	6.0	2.0	5-17-63	
Robertson, Clint. #7408	Robertson #1			3.0	9-29-60	
Robertson, Clint #7683	Robertson #1			2.0	3-20-61	
Robertson, Clint #7798	Robertson #2			1.5	5-08-61	
Rockwell, Alva A. #2094	Rockwell			3.0	9-08-43	
Roelker, Raymond #4566	Roelker			2.0	4-16-56	
Rogers, Ruth & Sons #6292	Rogers #1			3.0	6-29-59	
Rogers, Wayne #4584	Rogers			5.0	4-16-56	
Rogers, Wayne #8987	Wayne Rogers #2	Dove Creek	9.5	3.0	7-31-62	
Rogers, Wayne #10039	Wayne Rogers #2	Big Canyon	8.0	2.5	12-27-63	
Rose, Roscoe #10322	Roscoe Rose #1	Dawson Draw	6.4	2.0	6-10-64	
Sabo, Carl #7482	Sabo #1			4.0	11-16-60	
Schear, Raymond #10956	Raymond Schear #1	Papoose Can.	14.6	7.5	4-05-66	
Schear, Raymond #12003	Raymond Schear #1	Papoose Can.	14.0	5.0	6-19-69	
Shaffstall, Edgar #2914	Shaffstall #1			2.0	7-29-47	
Shaffstall, Edgar #2915	Shaffstall #2			1.0	7-29-47	
Sharp, C.E. #4549	Sharp			4.0	2-16-56	
Shields, Bryce E. #11285	Bryce E. Shields Canyonview #1-67	Yellowjacket	9.0	1.5	3-08-67	
Shimp, Mary #9057	Clyde Ayers #1	Cahone Canyon	14.5	6.0	9-13-62	
Shutt, L.V. #9027	L.V. Shutt #1	Coal Bed Cr.	9.0	6.0	8-16-62	

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B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Smart, Elbert #4564	Smart			3.0	4-16-56	
Smart, William E. #6821	Smart #1			9.0	3-09-60	
Smith, Leora K. #6085	Enlargement #1			2.0	3-23-59	
Snyder Bros. #4169	Snyder Bros. #2			3.0	1-11-54	
Snyder Bros. #4170	Snyder Bros. #4			4.0	1-11-54	
Snyder Bros. #4184	Snyder Bros.			3.0	1-12-54	
Snyder Bros. #4185	Snyder Bros.			8.0	1-12-54	
Snyder, Walter B. #2450	Snyder			3.0	2-06-45	
Stanley, T. B. #11049	T.B. Stanley #1-66	Cross Canyon	8.0	2.0	7-05-66	
Stanley, T.B. #11318	T.B. Stanley #1-67	Cross Canyon	4.1	1.5	4-18-67	
Steerman, Millard #4133	Steerman #1			2.0	11-05-53	
Steerman, Millard #6115	Steerman #2			2.0	4-10-59	
Steerman, Millard #6116	Steerman #3			2.0	4-10-59	
Stouard, J.W. #6039	Stouard			1.0	2-03-59	
Stowe, L.A. #4360	Stowe			2.0	4-05-55	
Stowe, L.A. #6351	Stowe #1			1.5	7-29-59	
Stowe, L.A. #7422	Stowe #1			2.0	10-13-60	
Stowe, L.A. #11853	L.A. Stowe #1-68	Monument Cr.	4.0	0.8	10-23-68	
Stringer, W.W. #2920	Stringer			1.8	7-28-47	
Swanner, Jack #6445	Swanner #1			2.0	8-27-59	
Taylor, & Sons #7120	Taylor & Sons #2			2.0	7-19-60	
Taylor, Charles #4296	Taylor			2.0	8-30-54	
Taylor, G.D. #3822	Taylor #1			8.0	7-03-52	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Taylor, G.D. #3823	Taylor #2			1.0	7-03-52	
Taylor, Merton #3822 (same as Taylor,	Taylor #1 G.D.) also for	#3823		8.0	7-03-52	
Tibbetts, Everett #8454	Tibbetts Bros. #1	Hartman Canyon	5.9	2.5	1-30-62	
Tibbetts, Richard #9575	R. Tibbetts #1-63	Mc Elmo Creek	5.4	2.0	5-08-63	
Todd, Kenneth #9267	Kenneth Todd #1	Sharps Creek	13.2	2.0	12-31-62	
Todd, Kenneth #9268	Kenneth Todd #2	Sharps Creek	14.4	5.0	12-31-62	
Todd, Robert #12247	Robert Todd #1	Cross Canyon	8.0	3.0	5-07-70	
Todd, Robert #12248	Robert Todd #2	Cross Canyon	9.5	4.5	5-07-70	
Tracy, Charles #6930	Tracy #1			2.5	5-11-60	
Tracy, Charley #11025	Charley Tracy #1	Gross Canyon	9.0	4.0	6-10-66	
Tracy, Charley #11351	Charley Tracy #1	Sharps Creek	12.0	3.0	5-04-67	
Tracy, Charley #11352	Charley Tracy #2	Sharps Creek	8.5	2.0	5-04-67	
Tracy, Charley #11978	Charley Tracy #1	Sharps Creek	11.0	2.5	5-16-69	
USDAFS #10041	Rogers-Dalton #1	Chico Creek	7.0	2.0	12-27-63	
USDIBLM #78	Cahone			4.2	7-15-41	
USDIBLM #79	Wills			2.5	7-15-41	
USDIBLM #6817	Day			1.2	3-09-60	
USDIBLM #6818	Don. Dam			1.5	3-09-60	
USDIBLM #7067	Easy			1.8	6-29-60	
USDIBLM #7068	Empty			2.5	6-29-60	
USDIBLM #7069	Eden			4.0	6-29-60	
USDIBLM #7070	Effie			2.5	6-29-60	
USDIBLM #7071	Edward			6.0	6-29-60	
USDIBLM #7072	Eagle			3.0	6-29-60	
USDIBLM #7073	Elephant			8.0	6-29-60	
USDIBLM #7074	Eland			1.8	6-29-60	
USDIBLM #7075	Equater			1.5	6-29-60	
USDIBLM #7076	Eternity			4.0	6-29-60	
USDIBLM #7077	Ezra			3.0	6-29-60	

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B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDIBLM #7078	Ester			4.5	6-29-60	
USDIBLM #7079	Easter			2.0	6-29-60	
USDIBLM #7080	Eager			2.0	"	
USDIBLM #7081	Edom			2.5	"	
USDIBLM #7082	Eclipse			3.5	"	
USDIBLM #7083	Eel			2.5	"	
USDIBLM #7084	Ethel			4.0	"	
USDIBLM #7085	East			3.0	"	
USDIBLM #7183	Earl			9.0	"	
USDIBLM #7425	Evelyn			1.5	10-13-60	
USDIBLM #7426	Elsie			1.8	"	
USDIBLM #7526	Todd #1			6.0	12-14-60	
USDIBLM #7878	Flea Retention			1.0	6-20-61	
USDIBLM #8104	Flint Retention			2.0	9-15-61	
USDIBLM #8460	Fred Cline #1	Cross Canyon	9.0	1.5	1-30-62	
USDIBLM #9090	Genius Retention Dam #C4-R-165	Nigger Canyon	10.3	1.0	10-17-62	
USDIBLM #9091	Gibbon Reten. Dam #C4-R-166	Nigger Canyon	7.8	1.5	10-17-62	
USDIBLM #9100	Glacier Retention Dam #C4-R-153	Nigger Canyon	10.5	1.5	"	
USDIBLM #9193	Dalton Reservoir	Cross Canyon	12.0	2.5	11-29-62	
USDIBLM #9194	Guffey Ret. Dam #C4-R-170	Burro Canyon	7.1	1.5	11-29-62	
USDIBLM #9195	Grog Ret. Dam 171	Burro Canyon	5.7	2.0	"	
USDIBLM #9196	Godiva Ret. Dam 172	Moccasin Can.	7.0	1.5	"	
USDIBLM #9214	Galley Ret. Dam 175	Hovenweep Can.	6.0	1.0	12-04-62	
USDIBLM #9290	Grinder Ret. 182	Mc Elmo Creek	7.6	1.0	1-18-63	
USDIBLM #9325	Gotham Ret. 184	Mc Elmo Cr.	8.9	1.0	3-05-63	
USDIBLM #9647	Gal Ret. Dam 225	Hovenweep	11.2	2.0	7-31-63	
USDIBLM #9735	Glaze Ret. 207	Cross Canyon	7.0	2.0	7-31-63	
USDIBLM #9736	Goose Ret. Dam 208	Bridge Canyon	7.0	2.0	7-31-63	
USDIBLM #9737	Gull Ret. Dam 209	Nigger Canyon	9.4	2.0	7-31-63	
USDIBLM #9738	Geyser Ret. 210	Cross Canyon	10.0	1.0	"	
USDIBLM #9739	Girlee Ret. 211	Cutthroat Can.	8.0	1.0	"	
USDIBLM #9939	Hake Ret. Dam 269	Yellowjacket	10.4	1.0	10-29-63	

B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDIBLM #9975	Hill Ret. Dam 275	Yellowjacket	13.3	1.0	11-26-63	
USDIBLM #9976	Head Ret. Dam 276	Mc Elmo	12.7	2.0	11-26-63	
Utley, Norman #5831	Utley #1			1.5	10-09-58	
Veach, G.L. #5145	Veach #1			2.0	7-02-57	
Veach, G.L. #5146	Veach #2			4.0	7-02-57	
Veach, G.L. #5147	Veach #3			3.0	7-02-57	
Veach, G.L. #5148	Veach #4			4.0	7-02-57	
Veach, G.L. #6038	Veach #5			1.0	2-03-59	
Veach, G.L. #8379	Hodges #2			1.0	12-29-61	
Veach, G.L. #8506	Holly #3-61	Mc Elmo Cr.	7.0	1.0	2-09-62	
Veach, W.R. #11256	W.R. Veach #1-67	Mc Elmo Cr.	7.0	2.0	2-02-67	
Vedsted, B.J. #6314	B. J. Vedsted #3			2.0	6-30-59	
Vedsted, B.J. #10048	B.J. Vedsted	Narraguinnep	7.6	1.5	1-07-64	
Vinger, Waldo T. #6256	Vinger #1			1.5	6-11-59	
Vinger, Waldo T. #11007	Waldo T. Vinger #1	Cross Canyon	10.0	2.5	6-06-66	
Walden, John #6947	Walden #1			8.0	5-18-60	
Wallace, A.W. #5892	Wallace #1			2.0	11-10-58	
Wallace, Walter #6089	Wallace #1			2.0	3-23-59	
Wancura, Wayne #11791	Wayne Wancura #1	Cross Canyon	11.0	6.0	9-09-68	
Warner, Louise A. #11582	Louise A. Warner #1	Trail Canyon	4.0	1.0	10-30-67	
Washke, W.E. #6291	Washke #1			2.5	6-29-59	
Waschke, Willie #12018	Willie Waschke #1	Squaw Creek	12.5	5.0	7-01-69	
Waschke, Willie #12319	Willie Waschke #1	Cross Canyon	12.0	5.0	7-31-70	
Watkins, Ernest #4934	Watkins #1			2.0	2-20-57	

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B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Watkins, Felton #12210	Felton Watkins #1	Papoose Can.	15.0	7.0	3-12-70	
Watkins, Virgil #12227	Virgil Watkins #1	Papoose Can.	15.0	6.5	4-07-70	
Weaver, William #10671	W.E. Weaver #1	Alkali Canyon	9.3	2.0	7-06-65	
Weber, Richard C. #6274	Weber #1			6.0	6-29-59	
Weber, Richard C. #11722	Richard C. Weber #1	Squaw Creek	15.0	9.0	5-22-68	
Weber, Richard C. #11723	Richard C. Weber #2	Squaw Creek	10.5	5.0	5-22-68	
Weese, Chloe J. #5587	Weese #1			2.0	6-05-58	
Weese, Chloe J. #6904	Weese #1			1.5	4-26-60	
Weese, Clayton #8949	Clayton Weese #1	Sharps Creek	12.5	6.0	7-26-62	
Wells, Dorrell #10926	Dorrell Wells #1	Sharps Creek	11.0	4.0	1-31-66	
White, Henry M. #6338	White #1			5.0	7-16-59	
White, Jack #11137	Jack White #1	Coal Bed Cr.	7.5	4.0	9-22-66	
Wilderson, Laurence #10722	Laurence Wilderson #1-65	Mc Elmo Cr.	9.0	2.0	7-29-65	
Wilkerson, J.T. #6524	Wilkerson #1			5.0	9-18-59	
Willden, Floyd #12348	Folyd Willden #1	Mc Elmo Cr.	10.0	5.0	9-16-70	
Willey, Ralph #4160	Willey			2.0	11-06-53	
Williams, Jessie P. #12208	J.P. Williams #1	Chico Cr.	6.0	2.5	3-06-70	
Wilson, Arthur #3945	Wilson			5.0	12-05-52	
Wilson, Edwin #4904	Wilson			5.0	1-28-57	
Wortman, Luther #4602	Wortman			4.0	5-07-56	
Wright, C.L. #7373	Wright & Posey #1			6.0	9-16-60	
Wright, Clifford #11653	Clifford Wright #1	Monument Cr.	10.0	9.5	3-07-68	
Zwicker, Eldon #11274	Eldon Zwicker #1	Mc Elmo	9.0	3.0	2-24-67	

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B. LIVESTOCK WATER TANKS

DISTRICT 32 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Zwicker, Eldon #11275	Eldon Zwicker #2	Cottonwood	12.0	4.0	2-24-67	
Zwicker, Eldon #11276	Eldon Zwicker #3	Finley Canyon	9.0	2.0	2-24-67	

B. LIVESTOCK WATER TANKS

DISTRICT 33

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Barlow, Ward #11758	Ward Barlow #1-68	La Plata	11.0	5.0	7-16-68	
Benton, R. E. #11988	R.E. Benton #1-69	La Plata	7.5	0.5	5-29-69	
Benton, R.E. #11989	R.E. Benton #2-69	La Plata	5.2	0.4	5-29-69	
Benton, R.E. #11990	R.E. Benton #3-69	La Plata	8.8	0.5	5-29-69	
Benton, R.E. #11991	R.E. Benton #4-69	Red Horse Gul	11.5	1.6	5-29-69	
Campbell, Lee #12215	Lee Campbell #1-70	Cherry Cr.	5.5	0.5	3-27-70	
Campbell, Lee #12216	Lee Campbell #2-70	La Plata	5.7	0.7	3-27-70	
Candelaria, Ruth L. #11683	Ruth L. Candelaria #1-68	La Plata	5.9	2.0	4-04-68	
Dennison, Leo #10931	Leo Dennison #1-66	La Plata	11.0	2.0	2-08-66	
Dossey, Richard M. #7102	Dossey #2			3.0	6-29-60	
Dunn, W. F. #10860	W.F. Dunn #1-65	La Plata	13.0	0.5	11-10-65	
Dunn, W. F. #10861	W.F. Dunn #2-65	La Plata	11.0	0.1	11-10-65	
Dunn, W.F. #10862	W.F. Dunn #3-65	La Plata	14.0	0.2	11-10-65	
Framer, Raymond #11213	Ray Farmer #5-66	La Plata	5.2	1.0	12-23-66	
Grant & V.A. Paulek #11749	Grant & V.A. Paulek #3-68	La Plata	9.6	2.0	6-19-68	
Harris, C.C. #8833	Harris #1			1.5	5-11-62	
Harris, C.C. #11063	C.C. Harris #1-66	La Plata	5.0	0.7	7-18-66	
Harris, Donald #11311	Donald Harris #1	La Plata	6.0	1.0	4-14-67	
Haun, MD. #11313	M.D. Haun #1-67	Long Hollow	15.0	1.5	4-14-67	
Horvath, John G. Jr. #8119	Horvath #1			0.5	9-15-61	
Horvath, John Jr. #9033	John Horvath #1-62	La Plata	5.0	0.5	8-22-62	
Horvath, John Jr. #10961	John Horvath Jr. #1-66	La Plata	8.0	2.0	4-13-66	
Horvath, John Jr. #11312	John Horvath, Jr. #1-67	La Plata	3.8	0.5	4-14-67	

B. LIVESTOCK WATER TANKS

DISTRICT 33 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Horvath, John Jr. #11998	John Horvath Jr. #1-69	La Plata	3.3	1.0	6-11-69	
Hubbs, Ted #11404	Ted Hubbs #1-67	Long Hollow	5.9	0.2	6-13-67	
Huntington, C.W. #11902	C.W. Huntington #4-68	La Plata	9.7	1.0	1-30-69	
Huntington, C.W. #11903	C.W. Huntington #5 68.	La Plata	9.7	0.8	1-30-69	
Huntington, C.W. #11904	C.W. Huntington #6 68	La Plata	7.2	0.7	1-30-69	
Huntington, C.W. #12196	C.W. Huntington #1 70	La Plata	15.0	5.0	2-24-70	
Huntington, Lawrence #11645	Lawrence Huntington #1-68	La Plata	4.7	1.5	1-24-68	
Huntington, Lawrence #11646	Lawrence Huntington #1-62	Roberts Cany.	10.9	0.2	1-24-68	
Huntington, Lawrence #11647	Lawrence Huntington #2-62	Roberts Cany.	8.0	0.1	1-24-68	
Isgar, Arthur #8098	Isgar #1			0.2	9-15-61	
Isgar, Arthur #8099	Isgar #2			0.2	9-15-61	
Isgar, Arthur #11188	Arthur Isgar #1-66	Calf Creek	8.0	1.0	11-16-66	
Kennedy, Ed #11263	Ed Kennedy #1-66	La Plata	7.0	1.0	2-08-67	
Kikel, J.J. #11207	J.J. Kikel #2-66	La Plata	7.0	1.0	12-14-66	
Lee, Mack E. Jr. #10848	Mack E. Lee #1-65	Cherry Creek	10.5	0.2	11-08-65	
Leonard, Chester #12309	Chester Leonard #1-70	Cherry Creek	4.3	0.4	7-09-70	
Leonard, Chester #12310	Chester Leonard #2-70	Cherry Creek	5.3	0.5	7-09-70	
Lobato, G. H. #3335	Lobato			3.0	12-15-49	
McCaleb, Joe #3768	McCaleb			4.0	1-11-52	
McCaleb, Joe #11183	Joe McCaleb #1-66	La Plata	8.0	1.0	11-16-66	
Mullen, Chas. V. Lessie #276	Mullen #1			3.0	8-18-41	
Newby, Ellen #11015	Ellen Newby #1-69	La Plata	12.0	2.5	6-07-66	
Paulek, Debs #11773	Debs Paulek #1-68	La Plata	5.2	0.6	6-22-68	

B. LIVESTOCK WATER TANKS

DISTRICT 33 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Paulek, Debs #11774	Debs Paulek #2-68	La Plata	2.7	0.2	7-22-68	
Payne, Charles #7996	Payne #1			2.0	7-17-61	
Peden, Dewey #10663	Dewey G. Peden #1-65	La Plata	11.0	3.5	6-17-65	
Perino, Mary #11387	Mary Perino	Long Hollow	5.0	0.5	6-05-67	
Rasmussen, Bill #11314	Bill Rasmussen #1-67	Spring Hollow	6.0	0.5	4-14-67	
Rasmussen, Bill #11315	Bill Rasmussen #2-67	Spring Hollow	6.0	0.5	4-14-67	
Rasmussen, Bill #11316	Bill Rasmussen #3-67	" "	6.0	0.5	4-14-67	
Rowe, Harry #10844	Harry Rowe #1-65	La Plata	3.0	0.6	11-08-65	
Rowe, Harry #10845	Harry Rowe #2-65	La Plata	6.0	2.0	11-08-65	
S. Ute Sheep Growers Assn. #3751	Picnic Flats #1			0.8	11-06-51	
S. Ute Sheep Growers Assn. #3752	Picnic Flats #2			3.5	11-06-51	
Schmitt, Joe H. #8918	Joe H. Schmitt #1-62	La Plata	5.0	0.2	6-25-62	
Schmitt, John A. #8512	J.A. Schmitt #1-62	La Plata	5.0	0.2	3-08-62	
Scott, Iola #8895	Scott #1			1.0	6-20-62	
Scott, R. T. #12253	R.T. Scott #1-70	La Plata	8.1	2.0	5-12-70	
Scott, Sandy #4339	Scott			0.5	3-28-55	
Scott, Sandy #8895	Scott #1 (SAME AS	IOLA SCOTT ABOVE)		1.0	6-20-62	
Senti, Samuel J. #6310	Senti #1			8.5	6-30-59	
Senti, Samuel J. #6311	Senti #2			7.2	6-30-59	
Slade, G.B. #11845	G.B. Slade #1-68	La Plata	6.5	0.8	10-16-68	
Slade, G.B. #11846	G.B. Slade #2-68	La Plata	7.4	0.9	10-16-68	
Slade, G.B. #11856	G.B. Slade #3-68	La Plata	5.0	0.3	10-24-68	
Slade, G.B. #11857	G.B. Slade #4-68	La Plata	5.0	0.4	10-24-68	

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B. LIVESTOCK WATER TANKS

DISTRICT 33 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A. F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Slade, G.B. #11892	G.B. Slade #5-68	La Plata	6.5	0.3	1-03-69	
Slade, G.B. #11893	G.B. Slade #6-68	La Plata	5.8	0.5	1-03-69	
Slade, G.B. #11894	G.B. Slade #7-68	La Plata	5.2	0.4	1-03-69	
State Land #276	Mullen			3.0	8-18-41	
Stevens, J.M. #11326	J.M. Stevens #1-67	La Plata	8.0	1.5	4-20-67	
Stevens, J.M. #11327	J.M. Stevens #2-67	La Plata	7.0	1.0	4-20-67	
Strobel, Merril #10673	Merril Strobel #1-65	Cherry Creek	5.0	0.1	7-06-65	
Strobel, Merril #10674	Merril Strobel #2-65	Alkali Gulch	5.0	0.1	7-06-65	
Taylor, Bob K. #10783	Bob K. Taylor #1 65	San Juan Arroyo	6.0	3.0	9-02-65	
USDAFS #4274	Sponse1			1.0	7-15-54	
USDAFS #6159	Loop			0.5	4-29-59	
USDAFS #1329	Loop			2.5	10-17-41	
USDAFS #3881	Cottonwood			1.0	10-28-52	
USDAFS #4406	Cima			1.0	10-21-55	
USDAFS #4408	Kane			1.0	10-21-55	
USDAFS #4424	Kane			2.0	10-21-55	
USDAFS #4425	Cottonwood			4.0	10-21-55	
USDAFS #4426	Cherry			4.0	10-21-55	
USDAFS #4521	Willow			2.0	2-14-56	
Wagner, Buckley D. #11843	B.D. Wagner #1-68	La Plata	10.5	2.5	10-16-68	
Wagner, Buckley D. #11844	B.D. Wagner #2-68	Cherry Creek	6.0	2.0	10-16-68	
Wheeler, Wilford #11091	Wilford Wheeler #1-66	La Plata	10.0	2.0	8-03-66	
Wheeler, Wilford #11092	Wilford Wheeler #2-66	La Plata	11.0	1.5	8-03-66	

B. LIVESTOCK WATER TANKS

DISTRICT 34

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Ahrens, Web #11136	Web Ahrens #1-66	Chicken Cr.	7.0	3.0	9-22-66	
Alexander, Noland #7367	Alexander #1			5.0	9-15-60	
Allen, Whetsel #4001	Allen #2			6.0	4-10-53	
Allum, Jack R. #11871	Jack R. Allum #1-68	Mud Creek	7.0	2.0	11-20-68	
Allum, Jack #12330	Jack Allum #1-70	Mud Creek	13.0	9.0	8-07-70	
Bayless, Reed E. #4355	Bayless			5.0	4-05-55	
Bayless, Reed #9802	R.E. Bayless #1-63	Mud Creek	7.3	1.5	8-22-63	
Bayless, Reed #9803	R.E. Bayless #2-63	Mud Creek	3.4	0.8	8-22-63	
Bayless, Reed #9804	R.E. Bayless #3-63	Lost Canyon	7.5	2.0	8-22-63	
Bircher, J.M. #12081	J.M. Bircher #1-69	Mud Creek	8.0	1.0	8-14-69	
Bircher, J.M. #12082	J.M. Bircher #2-69	Mud Creek	11.0	0.8	8-14-69	
Bircher, J.M. #12083	J.M. Bircher #3-69	Mud Creek	13.0	1.5	8-14-69	
Bradfield, A.H. #3942	Bradfield			3.0	12-05-52	
Bradfield, A.H. #3943	Bradfield			5.0	12-05-52	
Bradfield, A.H. #3944	Bradfield			4.0	12-05-52	
Bradfield, Adrian #3942	Bradfield #1 (SAME AS BRADFIELD, A.H.ABOVE)			3.0	12-05-52	
Bradshaw, Dean #7302	Bradshaw #1			2.0	8-23-60	
Bradshaw, Dean #7303	Bradshaw #2			2.5	8-23-60	
Butler, Paul #6259	Butler #2			2.5	6-11-59	
Clever, W.G. #3962	Clever			5.0	4-03-53	
Clever W.G. #4135	Clever			7.0	11-05-53	
Coppinger, R.B. #8081	Coppinger #1			2.0	9-15-61	
Cox, Lyle #9556	Lyle Cox #1-63	Mud Creek	5.8	3.0	4-23-63	

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B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Crader, Billy C. #8921	Kim #1			3.0		7-13-62
Decker, John B. #11154	John B. Decker #3-66	Mud Creek	8.0	2.0		10-03-66
Decker, Johnny #7480	Decker #1			2.0		11-16-60
Everett, Walter C. #9956	W.C. Everett #1-63	Mud Creek	10.0	4.0		11-05-63
Everett, Serena J. #12150	Serena Everett #1-69	Mud Creek	8.0	3.0		11-03-69
Fowzer, F.B. #64	Fowzer			0.8		7-18-41
Fulbright, Lewis #7867	Fulbright #1			2.0		6-20-61
Gardner, George Mrs. #3963	Gardner			5.0		4-03-53
Gardner, Jewel #8168	Gardner #1			1.0		9-26-61
Gardner, Jewel #9114	Jewel Gardner #2 62	Dolores R.	7.0	2.8		10-17-62
Gardner, Jewel Mrs. #5230				4.0		9-10-57
Gardner, Jewel #9727	Jewel Gardner #1 63	Lost Canyon	6.0	2.0		7-31-63
Garlinghouse, Elias J #11982	E.J. Garlinghouse #1-69	Chicken Cr.	7.0	1.0		5-20-69
Graffis, Ralph #5700	Graffis			3.0		8-05-58
Hall, Ansel #6378	Hall #1			7.0		7-29-59
Hall, B.L. #4403	Hall			2.0		10-21-55
Humiston, Everett #6139	Humiston #1			3.0		4-20-59
High Camp Co, Inc. #12004	Maurice #1-69	Italian Can.	13.0	10.0		6-19-69
Hurst, Juniel #9763	Juniel Hurst #1 63	Mud Creek	5.0	1.0		8-05-63
Hurst, Milton #9762	Milton Hurst #1 63	Mud Creek	7.0	2.0		5-05-63
Hurst, Milton B. #12297	Milton Hurst #1 70	Mud Creek	7.0	2.0		6-23-70
Johnson, Earl #4983	Johnson			9.0		3-30-57
Johnson W.E. #8993	Johnson #1-62	Silver Cr.	7.8	4.0		8-10-62

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Jones, Robert #9219	Robert Jones #1-62	W. Mancos	4.0	2.0	12-05-62	
Jones, Robert #9220	Jones #2			4.0	12-05-62	
King, Normal #7945	King Rock #1			2.0	7-07-61	
King, Troy #7978	King #1			2.0	7-17-61	
Krater, Frank #9869	Frank Krater #1 63	Ryman Draw	12.7	3.0	9-27-63	
Lanier, J.R. #4193	Lanier			5.0	1-12-54	
Lovett, Emery Jr. #8158	Lovett			1.5	9-26-61	
Luellen, Charles L. #12024	Charles L. Luellen #1-69	Mud Creek	10.0	2.5	7-07-69	
Luellen, Charles L. #12025	Charles L. Luellen #2-69	Mud Creek	7.0	2.0	7-07-69	
Luellen, Charles L. #12026	" #3-69	"	6.0	1.0	"	
Charles L. Luellen #12312	Chas. L. Luellen #2-70	"	7.0	3.0	7-10-70	
Lynton, J.H. #10257	J.H. Lynton #1-64	Dolores R.	4.7	1.0	5-20-64	
Mathews, Harmon #4315	Mathews			5.0	9-02-54	
Mathews, Harmon #11997	Harmon Mathews #1-69	Mancos R.	9.3	2.0	6-11-69	
McConnel, Edward #10342	Edward McConnel #1-64	Mancos Cr.	9.0	4.0	6-25-64	
Norris, Owen #11076	Owen Norris #1-66	Mud Creek	11.0	3.0	7-27-66	
Oglesby, John M. #12368	John M. Oglesby #1-70	Lemmon Draw	8.0	3.0	10-15-70	
Oliver, Lester #9540	Lester Oliver #1 63	W.Ryman Draw	10.8	6.0	4-18-63	
Ott, Jack #6601	Ott #1			3.0	10-29-59	
Ott, Jack H. #5744	Gold Run			2.0	8-28-58	
Periman, R.T. #4947	Periman			2.0	2-27-57	
Pickens, Charles N. #3565	Pickens			4.0	10-27-50	
Potts, Westley #6257	Potts #1			2.5	6-11-59	

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B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Potts, Westley #6258	Potts #2			3.0	6-11-59	
Raestle, Andrew #3463	Raestle			8.0	4-27-50	
Randall, E.A. #12358	E.A. Randall #1-70	Mancos River	10.0	3.0	10-02-70	
Randall, E.A. #12359	E.A. Randall #2-70	Mancos River	8.0	1.5	10-02-70	
Riggs, Joe #7894	Riggs #1			1.0	6-20-61	
Ritter, John W. #10397	John W. Ritter #1-64	Mancos River	6.8	2.0	7-16-64	
Robb, Arlo #5266	Robb #1			2.0	10-01-57	
Rogers, Charlie #3672	Rogers			6.0	6-28-51	
Rogers, Charlie #6626	Rogers #3			9.0	11-09-59	
Rogers, George #4003	Rogers			6.0	4-10-58	
Shepard, Roland #11114	Roland Shepard Charlie #1-66	Mancos River	9.0	4.0	9-01-66	
Shepard, Roland #11712	Roland Shepard #1-68	Mancos River	13.6	10.0	5-13-68	
Shepard, Rosa M. #11979	Rosa M. Shepard #1-69	Mancos River	13.0	9.0	5-16-69	
Simmons, A. O. #11573	A.O. Simmons #1-67	Mud Creek	5.6	3.0	10-17-67	
Simmons, L.A. \$4188	Simmons			4.0	1-12-54	
Simmons, L.A. #4350	Simmons			2.0	3-28-55	
Spencer, James O. #9178	Jim Spencer #1-62	Turkey Creek	8.0	2.0	11-29-62	
Stinson, James #614	Stinson			4.0	9-22-41	
Taylor, Lloyd B. #1635	Taylor			4.0	10-20-41	
Torres, C. #3958	Torres			3.0	12-09-52	
USDAFS #2760	Longwill			1.5	8-14-46	
USDAFS #3190	Stoner Mesa			1.5	5-21-48	
USDAFS #3387	Salter Bench			0.8	11-30-49	
USDAFS #5303	Stump			0.5	11-05-57	
USDAFS #6032	Halls			0.1	1-28-59	

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A. F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #3598	Taylor Mesa			1.5	12-11-50	
USDAFS #3882	Morgan Canyon			1.0	10-28-52	
USDAFS #4278	Slate			1.0	8-24-54	
USDAFS #4279	Middle			1.0	8-24-54	
USDAFS #6151	Elk			0.5	4-29-59	
USDAFS #6152	Myler			0.5	4-29-59	
USDAFS #6153	Hamlin			0.5	"	
USDAFS #6154	Hallar			1.5	"	
USDAFS #6155	Coppinger			5.0	"	
USDAFS #6156	Spring Creek			2.0	"	
USDAFS #6157	Box Canyon			0.5	"	
USDAFS #6158	Driveway			0.5	"	
USDAFS #6160	Millset			5.0	"	
USDAFS #6161	Mud			2.0	"	
USDAFS #6162	Aspen			2.0	"	
USDAFS #6163	Turkey Point				"	
USDAFS #6164	Bernard			0.5	"	
USDAFS #6165	Walters			0.5	"	
USDAFS #6166	Rock Spring			0.5	"	
USDAFS #6167	Chicken Lake			1.0	"	
USDAFS #6168	Spruce Lake			0.5	"	
USDAFS #6169	Turkey Knoll			0.5	"	
USDAFS #6170	Bayless			0.5	"	
USDAFS #6171	Robinson			0.5	"	
USDAFS #6172	Dixie			1.0	"	
USDAFS #6173	Black			0.5	"	
USDAFS #6174	Walker			0.5	"	
USDAFS #6175	Haycamp			0.5	"	
USDAFS #6176	Dry			0.5	"	
USDAFS #6177	Cline			0.5	"	
USDAFS #6178	Sharkstooth			0.5	"	
USDAFS #6534	California Reserv.			0.5	9-30-59	
USDAFS #6796	Carlyle Point			1.0	2-24-60	
USDAFS #3276	Porter			1.5	10-20-49	
USDAFS #1275	Akin			3.0	10-17-41	

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #1276	Anderson Camp			3.0	10-17-41	
USDAFS #1277	Aspen			1.2	10-17-41	
USDAFS #1284	Willow Draw			3.0	10-17-41	
USDAFS #1286	West Italian			0.2	"	
USDAFS #1287	West Buck			1.2	"	
USDAFS #1289	Turkey Point			1.0	"	
USDAFS #1290	Turkey			8.2	"	
USDAFS #1291	Trimble Point #4			3.0	"	
USDAFS #1293	Trimble Point #2			7.0	"	
USDAFS #1296	Trail Point			0.5	"	
USDAFS #1297	Thomas			1.2	"	
USDAFS #1298	Taylor Spring			0.2	"	
USDAFS #1300	Stoner Point			0.8	"	
USDAFS #1302	Spur			1.5	"	
USDAFS #1303	Spring Creek			0.8	"	
USDAFS #1304	Smoothing Iron			5.0	"	
USDAFS #1306	School Section			3.0	"	
USDAFS #1310	Rock Spring			0.2	"	
USDAFS #1311	Puett			2.5	"	
USDAFS #1314	Peel Spring			1.2	"	
USDAFS #1315	Old Stock			0.2	"	
USDAFS #1316	Old Logging Camp			1.5	"	
USDAFS #1317	Oak Knolls			7.0	"	
USDAFS #1320	Myler			0.2	"	
USDAFS #1321	Mud			1.5	"	
USDAFS #1322	Morgan Cabin			0.8	"	
USDAFS #1323	Millset			2.2	10-17-41	
USDAFS #1324	Milligan			2.5	"	
USDAFS #1325	Miller Camp			4.0	"	
USDAFS #1334	Lone Dome			1.5	"	
USDAFS #1335	Log Camp			1.0	"	
USDAFS #1336	Little Mud			5.5	"	
USDAFS #1338	Little Buck			1.5	"	
USDAFS #1342	Kuhlman			1.8	"	
USDAFS #1346	Indian Draw			2.0	"	

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #1348	Hoppe Point			2.0	10-17-41	
USDAFS #1351	Hamlin			0.7	"	
USDAFS #1352	Hallar			11.0	"	
USDAFS #1364	Elk			0.3	"	
USDAFS #1365	East Italian			0.5	"	
USDAFS #1367	Dunham			5.5	"	
USDAFS #1369	Driveway			0.2	"	
USDAFS #1372	Cox			2.0	"	
USDAFS #1374	Coppinger			3.0	"	
USDAFS #1375	Colt			1.2	"	
USDAFS #1378	Cline			1.0	"	
USDAFS #1379	Chicken Lake			3.0	"	
USDAFS #1382	Burnt Logs			4.0	"	
USDAFS #1385	Box Canyon			0.2	"	
USDAFS #1386	Boggy Draw			3.0	"	
USDAFS #1387	Biggs			1.5	"	
USDAFS #1388	Big Hill			0.8	"	
USDAFS #2457	Horse			0.8	3-08-45	
USDAFS #2458	Lumber Co.			0.8	"	
USDAFS #2459	2 Pine			4.0	"	
USDAFS #2463	Coal Canyon			1.5	"	
USDAFS #2466	Apple Tree			2.0	"	
USDAFS #2471	Tucker			0.5	"	
USDAFS #2472	Van Pelt			0.5	"	
USDAFS #2473	Butler			0.5	"	
USDAFS #2474	Weaver			2.0	"	
USDAFS #2475	Lyle			3.0	"	
USDAFS #2476	Barnard			2.0	"	
USDAFS #2477	Bayles			2.0	"	
USDAFS #2478	Everett			3.0	"	
USDAFS #2479	Spruce Canyon				3-19-45	
USDAFS #2480	Beaver Point			2.5	"	
USDAFS #2729	Beef Pasture			1.5	5-17-46	
USDAFS #2916	Turkey Divide			1.0	7-28-47	
USDAFS #3799	Kelly			0.5	5-01-52	

B. LIVESTOCK WATER TANKS

District 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #3800	Taylor Mesa			1.5	5-01-52	
USDAFS #3955	Hay Camp Point			0.8	12-09-52	
USDAFS #3956	Hondou			2.0	"	
USDAFS #4156	Grouse Point			1.0	11-06-53	
USDAFS #4215	Roy			0.2	1-12-54	
USDAFS #4216	Five Mile			1.5	1-12-54	
USDAFS #4219	Fish Creek Point			0.2	"	
USDAFS #4220	Iron Springs			1.0	"	
USDAFS #4222	Gardner			1.0	"	
USDAFS #4224	Deer			0.8	"	
USDAFS #4272	East Mancos				7-15-54	
USDAFS #4273	Gilliland				"	
USDAFS #4275	Jog			0.2	"	
USDAFS #4276	Lower			0.2	"	
USDAFS #4319	Wesley			1.5	9-02-54	
USDAFS #4327	Knuckles			1.5	9-03-54	
USDAFS #4328	Greenlee			1.5	"	
USDAFS #4368	Stingle			1.5	4-14-55	
USDAFS #4374	Garbareno			1.0	"	
USDAFS #4376	Log Camp #2			1.0	"	
USDAFS #4377	Hoppe Pt. #2			1.0	"	
USDAFS #4394	Dunton Point			1.0	10-21-55	
USDAFS #4409	Mauler			0.5	"	
USDAFS #4410	Smith			1.0	"	
USDAFS #4423	Sawmill			1.2	"	
USDAFS #4519	Menefee			0.2	2-14-56	
USDAFS #4520	Sheek			1.0	"	
USDAFS #4522	Reddert			2.0	"	
USDAFS #4523	Upper Loop			2.0	"	
USDAFS #4640	McCabe			0.5	6-19-56	
USDAFS #4641	Robbins			0.5	"	
USDAFS #4642	Turkey Spring			0.5	"	
USDAFS #4643	Riggins			0.5	"	
USDAFS #4644	Groundhog			0.5	"	
USDAFS #4645	Dean			0.5	"	

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #4646	Gibbs			0.5	6-19-56	
USDAFS #4647	Marys			1.0	"	
USDAFS #4648	School Section			0.2	"	
USDAFS #4649	Exon			0.5	"	
USDAFS #4650	Blind Spring			0.5	6-20-56	
USDAFS #4651	Noland			0.5	"	
USDAFS #4714	Five Mile			1.5	9-14-56	
USDAFS #4715	Pipe Creek			1.2	"	
USDAFS #4740	Lost Canyon			1.5	8-31-56	
USDAFS #4741	Ramsey			1.0	"	
USDAFS #4863	Hoppe Pt. Spring			0.2	1-14-57	
USDAFS #4986	Spruce			0.5	3-28-57	
USDAFS #4988	S. Grouse Point			1.2	"	
USDAFS #6088	Coal Spring			0.2	3-23-59	
USDAFS #7046	Boundary			1.5	6-29-60	
USDAFS #7092	Pine Tree			1.0	"	
USDAFS #7154	Bean			1.5	7-19-60	
USDAFS #9115	Long Draw	Stoner Creek	6.0	2.0	10-18-62	
USDAFS #9116	Stoner Point #2	E. Dolores R.	7.0	1.5	10-18-62	
USDAFS #9117	Stoner Point #3	W. Dolores R.	5.0	1.0	"	
USDAFS #9120	Bauer	Stoner Creek	6.0	1.5	"	
USDAFS #9121	Sutton	E. Dolores R.	5.0	1.0	"	
USDAFS #9122	Gould	E. Dolores R.	7.0	2.0	"	
USDAFS #9123	Wallace	Stoner Creek	7.0	1.5	"	
USDAFS #9207	Eldon	Rocky Draw	4.5	1.5	12-04-62	
USDAFS #9209	Stanley	Boggy Draw	5.5	2.5	"	
USDAFS #9510	Bartel	E. Mancos R.	4.0	0.4	4-16-63	
USDAFS #9511	Beef Pasture #2	Dolores R.	5.0	1.0	"	
USDAFS #9512	Corner Reservoir	Lost Canyon	5.0	0.8	"	
USDAFS #9513	Roelker	Dolores R.	4.0	0.6	"	
USDAFS #9514	Steerman	Dolores R.	4.0	0.6	"	
USDAFS #9515	Taylor Spring	Morgan Cany.	5.0	0.7	"	
USDAFS #9516	W. Grouse Point	Dolores R.	4.0	0.5	"	
USDIBLM #9740	Gore Ret. Dam C4-R-212	Mancos R.	12.5	1.0	7-31-63	

B. LIVESTOCK WATER TANKS

DISTRICT 34 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDIBLM #9741	Goofer Ret. 213	Mancos R.	7.0	1.0	7-31-63	
USDIBLM #9742	Guinea Ret. 214	Mancos R.	13.0	1.0	"	
USDIBLM #9743	Gamble Ret. 215	"	12.5	1.0	"	
USDIBLM #9744	Glare Ret. 220	Spencer Cany.	7.0	2.0	"	
USDIBLM #9745	Grace Ret. 221	Joe Canyon	7.4	1.0	"	
USDIBLM #9746	Gasket Ret. 222	Spencer Cany.	6.2	2.0	"	
USDIBLM #9765	Garnet Ret. 224	Mancos R.	11.0	1.0	8-05-63	
Van Pelt, H.M. #2008	Van Pelt #1			0.2	5-06-43	
Van Pelt, H.M. #3946	Van Pelt #2			2.0	12-05-52	
Wallace, Mary #4572	Wallace			4.0	4-16-56	
Wallace, Walter #5812	Wallace #1			1.5	9-30-58	
Wallace, Walter #5813	Wallace #2			2.0	10-02-58	
Wallace, Wesley #5801	Wallace #1			2.0	9-26-58	
Wallace, Wesley #7896	Wallace Rim #1			3.0	6-20-61	
Wallace, Wesley #7897	Wallace Rim #2			2.0	"	
Wallace, Wesley #7928	Wallace Hay Camp #3			2.0	"	
Wallace, Wesley #12152	Wesley Wallace Steve #1-69	Spruce Water Canyon	4.5	3.0	11-10-69	
West, Walter #9237	Walter West #1-62	Mud Creek	8.3	2.0	12-13-62	
West, Walter #9238	Walter West #2-62	Mud Creek	7.4	2.0	"	
West, Walter C. #11865	W.C. West SE#1-68	Mud Creek	6.0	2.0	11-12-68	
West, Walter C. #11866	W.C. West SW#2-68	Mud Creek	4.0	1.0	"	
West, Walter C. #11867	W.C. West NW#3-68	Mud Creek	5.0	1.5	"	
Williamson, Reese #10647	Reese Williamson #1-65	Mancos R.	13.0	5.0	3-05-65	
Young, J.P. #6315	Young #1			7.0	6-30-59	

B. LIVESTOCK WATER TANKS

DISTRICT 69

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Adams, David #11153	David Adams #1-66	Beaver Creek	8.8	3.0	10-03-66	
Adams, Lloyd #9149	Lloyd Adams #3-62	Bush Canyon	6.7	2.0	11-14-62	
Adams, Melvin #5938	Adams #2			2.0	12-10-58	
Akin, Roy #2870	Akin #1			1.5	7-18-47	
Akin, Roy #2872	Akin #2			1.0	"	
Akin, Roy #2873	Akin #4			0.8	"	
Akin Roy of Akin Bros. #2871	Akin #3			1.0	"	
Anderson, Otto R. #3653	Anderson			10.0	6-25-51	
Bankston, Neil #6690	Bankston #1			2.0	12-10-59	
Bankston, Neil #8960	Neil Bankston #1 62	Disappointment	9.8	1.5	7-26-62	
Bankston, Neil #8961	Neil Bankston #2	Disappointment	15.0	3.0	"	
Bankston, Neil #10533	Neil Bankston #1- 64	Disappointment	4.0	1.5	10-09-64	
Bankston, Neil #10534	Neil Bankston #2	Disappointment	6.0	2.0	"	
Barrett Bros. #8102	Barrett Bros. #1			1.0	9-15-61	
Bickerton, R.W. #3826	Bickerton			2.0	7-03-52	
Blackmer, Frank #6401	Blackmer #1			1.5	8-26-59	
Blackmer, Frank #6402	Blackmer #2			2.0	"	
Blackmer, Frank #7486	Blackmer #3			1.2	11-16-60	
Blackmer, Frank #7487	Blackmer #4			1.5	"	
Blackmer, Fred #4349	Blackmer			2.0	3-28-55	
Blackmer, Fred #5229	Blackmer			5.0	9-10-57	
Blackmer, Fred #6477	Blackmer #4			2.0	9-17-59	
Blackmer, Fred #6478	Blackmer #5			2.0	"	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Bose, Carl #6429	Bose #6			2.0	8-27-59	
Bose, Carl #6430	Bose #7			2.0	"	
Bose Carl, L. #6384	Bose Dam #5			2.0	7-29-59	
Bose, Eileen #5956	Bose #1			1.5	12-17-58	
Bose, Eileen #5957	Bose #2			2.5	"	
Bose, Eileen #12149	Eileen Bose #1-69	Plateau Creek	11.0	1.0	11-03-69	
Brewer, Melvin #6397	Brewer #1			4.0	8-26-59	
Brumley Land & Live-stock Co. #8937	Wilson-Brumley #1-62	Gypsum Creek	8.9	2.0	7-13-62	
Brumley Land & Live=stock Co. #8938	Wilson Brumley #3	Gypsum Creek	11.6	6.0	"	
Brumley Land & L. Co. #8952	Brumley #2-62	Disappointment	3.1	1.0	7-26-62	
Brumley L. & L. Co. #8953	Brumley #4-62	Disappointment	5.4	2.0	"	
Brumley L & L Co. #8954	Brumley #5-62	Disappointment	2.5	1.0	"	
Brumley, Wilson #11517	Wilson Brumley #1-67	Clear Creek	6.0	2.0	9-28-67	
Brumley, Wilson #11518	Wilson Brumley #2	Groundhog Cr.	8.0	3.0	"	
Brumley, Wilson #12279	Wilson Brumley #1-70	Groundhog Cr.	9.0	2.0	6-12-70	
Butler, Paul #12017	Paul Butler #1-69	Beaver Creek	6.0	2.0	6-27-69	
Byrd, Frost, Inc. #3015	Glade			8.0	9-24-47	
Calliham, H.L. #8456	H.L. Calliham #1	Summit Canyon	8.2	4.0	1-30-62	
Caughran, L.C. #2330	Caughran #3			3.0	7-28-44	
Cresto, T.A. #981	Morrison Draw			1.0	11-04-41	
Cresto, T.A. #3947	Cresto #1			3.0	12-05-52	
Cresto, T.A. #11182	T.A. Cresto Douglas #1-66	Plateau Creek	5.2	2.0	11-16-66	
Dalton, Melvin #8832	Melvin Dalton #1	Dolores River	9.5	2.0	5-11-62	

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Dalton, Melvin #11570	Melvin Dalton #1-67	Secret Canyon	7.0	1.8	10-17-67	
Davis, Faye & Roy M. #9034	Faye & Roy Davis #4	Disappointment	5.5	0.5	8-22-62	
Davis, Mace E. #6371	Burbell #1			1.0	7-29-59	
Davis, Mace E. #6372	Burwell #2			0.5	7-29-59	
Davis, Roy M. #11681	Roy M. Davis #1-68	Disappoint.	3.3	0.2	4-04-68	
Doyel, N.F. #6061	Doyel			1.0	2-27-59	
Fitchett, Frank #2165	Fitchett			3.0	11-09-43	
Fury, Frank #2798	Fury			1.0	3-21-47	
Garbareno, Albert #2842	Garbareno #1			1.5	4-16-47	
Garbareno, Albert #2843	Garbareno #2			0.8	4-16-47	
Garbareno, Albert #2844	Garbareno #3			1.5	"	
Garbareno, Albert #2845	Garbareno #4			0.8	"	
Gardner, George Mrs. #3921	Gardner			5.0	10-30-52	
Gardner, Jewel #6006	Gardner #4			2.5	1-09-59	
Gardner, Jewell #6528	Gardner #5			2.0	9-18-59	
Goforth, William #3849	Goforth #1			4.0	7-07-52	
Grabeel, Everett #3742	Grabeel			4.0	11-06-51	
Halliday, Fred #4747	Halliday #1			10.0	10-03-56	
Halliday, Fred #8235	Halliday #1			5.0	11-07-61	
Hankins, Sam #8592	Sam Hankins #1-62	Bishop Canyon	9.0	3.0	4-25-62	
Hankins, Sam P. #9550	Sam P. Hankins #1-63	Bishop Can.	8.0	2.0	4-18-63	
Hankins, Sam P. #11377	Sam Hankins #1-67	Bishop Can.	11.5	2.0	6-05-67	
Hankins, Sam P. #12166	Sam Hankins #1-69	Bishop Can.	10.0	4.0	12-01-69	

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Heiney, Alvin #11803	Alvin Heiney #1-68	Dolores River	14.2	6.0	9-09-68	
Heiney, Alvin #11804	Alvin Heiney #2-68	Dolores River	8.0	2.5	"	
Heiney, Alvin #7325	Alvin Heiney #1			6.5	8-31-60	
Hill, Walter A. #11596	Walter A. Hill #1	Secret Can.	11.2	2.5	11-29-67	
Hodson, L.W. #2128	Hodson			3.0	10-20-43	
Hodson, W.A. #2446	Hodson			3.5	1-26-45	
Hughes Bros. Inc. #10706	Hughes Bros. #1-65	Hamm Canyon	3.3	0.5	7-29-65	
Hunter, Jack D. #11594	Jack D. Hunter #2	Dolores River	13.0	8.0	11-29-67	
James, A.L. #9500	A.L. James #1-63	Dolores R.	11.9	4.0	4-04-63	
James, A. L. #11258	A.L. James #1-66	Dolores R.	13.8	5.0	2-02-67	
Jensen, Alice #6496	Grouse #1			1.2	9-17-59	
Jensen, Alice #6497	Long Draw #2			0.4	"	
Jensen, Alice #6498	Quakie #3			1.8	"	
Jensen, Alice #7955	East Knob #7			0.8	7-07-61	
Jensen, Alice #7956	West Knob #6			0.6	7-17-61	
Jensen, Alice #8002	Walters Spring #4			0.8	"	
Jensen, Alice #8003	Bens Corner #5			1.0	"	
Jensen, Alice #8004	Pond In the L #8			1.8	"	
Jensen, Alice, Chas. & Edward #8899	Chas. Jensen #1	Dry Creek	2.5	0.2	6-20-62	
Jensen, Charles #10708	Chas. Jensen Una Draw	Disappoint.	8.0	0.5	7-29-65	
Jensen, Charles #10709	Chas. Jensen Bens Draw	Disappoint.	4.0	0.5	"	
Jensen, Charles #10710	Chas. Jensen Quakie Draw	Disappoint.	8.0	1.5	"	
Jensen, Charles #10711	Chas. Jensen Sagebrush Flat	Disappoint.	8.0	0.5	"	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Johnson, Charles W. #3960	Johnson			2.0	12-09-52	
Johnson, Charles #5973	Johnson #1			1.5	12-17-58	
Johnson, Charles #5974	Johnson #2			1.0	"	
Johnson, Charles #6544	Johnson #3			2.0	9-30-59	
Johnson, Charles #6545	Johnson #4			2.0	"	
Johnson, Eugene F. #10474	Eugene Johnson #1	Williams Draw	14.1	2.0	8-27-64	
Jones, Washburn, & Redd #9920	Washburn - Spud Patch #2-63	Dolores River	7.4	1.2	10-24-63	
King, Norman #5886	King #1			1.0	11-10-58	
King, Troy #5878	King #1			1.5	"	
King, Troy #6617	King #2			1.5	11-04-59	
Knuckles, N.G. #11500	N.G. Knuckles #1-67	Bell Canyon	11.4	6.0	9-01-67	
Krabbe, O.A. #3934	Krabbe #1			6.0	12-05-52	
Krabbe, O.A. #3935	Krabbe #2			3.5	12-05-52	
Mc Cabe, Anna #3018	Mc Cabe #1			0.5	9-24-47	
Mc Cabe, Terry #8175	Mc Cabe #1			2.5	9-26-61	
Mc Cabe, W.R. & Sons #7459	Mc Cabe #2			10.0	10-28-60	
Mc Cabe W.R. & Sons #7460	Mc Cabe #3			1.0	"	
Mc Cluer, J.C. #1505	Mc Cluer #1			1.5	2-11-42	
Mc Cluer, J.C. #1506	Mc Cluer #2			1.5	"	
Mc Comb, Harold #4637	Mc Comb			3.0	6-18-56	
Mc Comb, Harold #4638	Mc Comb			3.0	"	
Mc Comb, Harold #4639	Mc Comb			3.0	"	
Mc Comb, Harold #5983	Mc Comb #7			1.5	12-23-58	

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Mc Comb, Harold #6475	Mc Comb #6			10.0		9-17-59
Mc Comb, Harold #6476	Mc Comb #7			4.0		"
Mc Cabe, Terrance E. #11140	Terrance McCabe Lindsey #3-66	Plateau Creek	12.0	2.0		9-22-66
Montgomery, J.P. #9110	J.P. Montgomery #1	Coal Bed Cr.	6.0	2.0		10-17-62
Montgomery, J.P. #9111	J.P. Montgomery #2	Coal Bed Cr.	8.0	1.5		"
Musgrave, R.N. #10543	R.N. Musgrave #1-64	Groundhog Cr.	13.7	2.0		10-19-64
Musgrave, R.N. #11829	R.N. Musgrave Jackson #1-68	Beaver Creek	5.0	1.5		9-30-68
Musgrave, R.N. #11830	R.N. Musgrave Jackson #2-68	Beaver Creek	4.0	1.0		"
Neal, Robert #8998	Robert Neal #1-62	Calf Creek	8.6	3.0		8-10-62
Neely, Ivan #11304	Ivan Neely #1-67	Dolores River	14.5	9.0		3-23-67
Pehrson, John #4581	Pehrson			1.5		4-16-56
Pehrson, John #6356	Pehrson #1			2.0		7-29-59
Pehrson, John #6357	Pehrson #2			3.0		"
Pehrson, John N. #3932	Pehrson #1			3.0		12-05-52
Pehrson, John N. #3933	Pehrson #2			4.0		"
Pehrson, John N. #5580	Pehrson #4			3.0		5-27-58
Perkins, Richard #6535	Perkins #1			1.0		9-30-59
Perkins, Richard #6567	Perkins #2			1.0		10-29-59
Perkins, richard #6568	Perkins #3			2.0		"
Randolph, Ralph #4579	Randolph			4.0		4-16-56
Redd, Alma #6495	Redd #1			1.5		9-17-59
Redd, Charles #6673	Redd #1			1.5		12-02-59
Redd, Charles #6674	Redd #2			1.0		"

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Redd, Conway #6518	Redd #1			2.0	9-18-59	
Redd, Conway #6519	Redd #2			2.5	"	
Redd, Conway #6520	Redd #3			1.5	"	
Redd, Conway #6521	Redd #4			2.5	"	
Redd, Conway #6522	Redd #5			2.0	"	
Redd, Joe #5926	Redd #1			2.0	12-01-58	
Redd, Joe #5927	Redd #2			4.5	"	
Redd, Joe #6604	Redd #4			2.0	10-29-59	
Redd, Joseph #8258	Redd #1			2.0	11-08-61	
Redd, Joseph #9080	Joe Redd #1-62	Calf Creek	13.0	1.0	10-16-62	
Redd, Joseph #9081	Joe Redd #2-62	Calf Creek	8.9	2.0	10-16-62	
Reddm Joseph #9096	Joe Redd #3-62	Plateau Creek	15.0	2.0	10-17-62	
Redd Ranches #9104	Aiken #1-62	Beaver Creek	8.0	5.0	10-17-62	
Redd Ranches #9105	Aiken #2-62	Beaver Creek	4.0	3.0	"	
Redd Ranches #9106	Aiken #3-62	Beaver Creek	8.7	3.0	"	
Redd Ranches #9107	Aiken #4-62	Beaver Creek	7.4	2.0	"	
Redd Ranches #9108	Aiken #5-62	Mavreso Creek	8.5	1.5	"	
Redd Ranches #10461	Redd Ranches #1-64	Plateau Cr.	15.0	4.0	8-27-64	
Redd Ranches #10462	Redd Ranches #2-64	Plateau Cr.	5.0	1.0	"	
Redd Ranches #10463	Redd Ranches #3-64	Plateau Cr.	6.0	1.5	"	
Redd Ranches #10464	Redd Ranches #4-64	"	5.0	3.0	"	
Redd Ranches #10465	Redd Ranches #5-64	"	5.0	3.0	"	
Redd Ranches #10466	Redd Ranches #6-64	"	6.0	1.5	"	
Redd Ranches #10467	Redd Ranches #7-64	"	3.0	1.0	"	
Redd Ranches #10788	Redd Ranches #1-65	"	15.0	4.0	9-02-65	
Redd Ranches #10789	Redd Ranches #2-65	"	5.0	1.0	"	

B. LIVESTOCK WATER TANKS .

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Redd Ranches #10790	Redd Ranches #3-65	Plateau Creek	6.0	1.5	9-02-65	
Redd Ranches #10791	Redd Ranches #4-65	Plateau Creek	5.0	3.0	"	
Redd Ranches #10792	Redd Ranches #5-65	Plateau Creek	5.0	3.0	"	
Redd Ranches #10793	Redd Ranches #6-65	Plateau Creek	6.0	1.5	"	
Redd Ranches #10794	Redd Ranches #7-65	Plateau Creek	3.0	1.0	"	
Retherford, Roy J. #6377	Retherford #2			2.0	7-29-59	
Retherford, Roy J. #6411	Retherford #3			5.0	8-26-59	
Retherford, Roy J. #9153	Roy Retherford #4	Plateau Creek	5.0	2.0	11-14-62	
Reynolds, Victor M. #10935	Victor M. Reynolds #1-66	Bush Canyon	6.0	1.5	3-23-66	
Reynolds, Victor M. #10936	Victor M. Reynolds #2-66	Bush Canyon	8.0	2.0	"	
Rogers, Wayne #8986	Wayne Rogers #1-62	Big Canyon	9.0	2.0	7-31-62	
Rose, Troy #10756	Rose-Bush Canyon #1	Bush Canyon	8.0	2.0	8-03-65	
Rose, Troy #10757	Rose-Bush Canyon #2	Bush Canyon	7.5	1.5	"	
Saunders, Walter #6615	Saunders #1			4.0	11-04-59	
Selman, Minter H. #2126	Selman			3.0	10-20-43	
Sharp, Hilda #7156	Sharp #2			3.0	7-19-60	
Sharp, Hilda #7157	Sharp #3			2.0	"	
Sharp, Hilda #7205	Sharp #1			1.5	7-28-60	
Sisk, Mack #3784	Sisk #1			5.0	5-01-52	
Smart, Clinton #8234	Smart #1			6.0	11-07-61	
Smart, Clinton #11605	Clinton Smart #2	Dolores River	10.3	4.0	11-29-67	
Smith, A.E. #6433	Smith #1			3.0	8-27-59	
Suckla, James #9680	James Suckla #4-63	Disappointment	9.6	2.0	7-01-63	
Suckla, James #9681	James Suckla #5-63	Disappointment	8.0	2.0	"	
Suckla, James #9682	James Suckla #6	Disappointment	14.5	3.0	"	

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
Suckla, James #10485	James Suckla #1-64	Dolores River	5.0	1.0	9-04-64	
Suckla, James #10486	James Suckla #2-64	Dolores River	8.4	2.0	"	
Suckla, James #10487	James Suckla #3-64	Dolores River	7.7	2.0	"	
Suckla, James #10488	James Suckla #4-64	Dolores River	7.8	2.0	"	
Suckla, James #10489	James Suckla #5-64	Dolores River	3.4	3.0	"	
Suckla, James #10490	James Suckla #6-64	Disappointment	5.9	2.0	"	
Suckla, James #10491	James Suckla #7-64	Disappointment	5.6	1.0	"	
Suckla, James #10941	James Suckla #3-66 Suckla Ranches	Little Gypsum	5.0	2.0	3-23-66	
Suckla, James #10947	Suckla Ranches #6-66 Jimmy G.	Little Gypsum	4.0	1.0	"	
Suckla, James #10949	#8-66 Shannon	Little Burro	6.0	1.5	"	
Suckla, James #10950	#9-66 Kelly	Nichols Wash	7.0	2.0	"	
Suckla, James #11288	Jim Suckla #1-67	Disappointment	8.0	1.5	3-13-67	
Suckla, James #11289	Jim Suckla #2-67	Disappointment	9.0	2.0	"	
Suckla, James #11290	Jim Suckla #3-67	Nichols Wash	7.0	2.0	"	
Suckla, James #11291	Jim Suckla #4-67	Nichols Wash	8.0	1.5	"	
Suckla, James #12180	Chico #1-69		8.0	3.0	12-10-69	
Suckla, James #12183	Hamm Canyon #3-69	Gypsum Wash	7.0	2.0	1-07-70	
USDAFS #3189	Willow Springs			0.8	5-20-48	
USDAFS #3191	Salter Canyon			0.5	5-21-48	
USDAFS #3388	Aspen			1.0	11-30-49	
USDAFS #3497	Pine Arroya			0.8	5-05-50	
USDAFS #3506	Pat Canyon			1.0	"	
USDAFS #3508	Wolf Den			0.2	"	
USDAFS #3031	Wilson				9-25-47	
USDAFS #5304	Big			0.5	11-05-57	
USDAFS #5305	Saddle			0.5	"	
USDAFS #5925	Nipple Drift Fence			1.5	12-01-58	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #6009	Pease Point			0.8		1-09-59
USDAFS #6014	Aiken			0.5		1-14-59
USDAFS #6015	Mc Ewen			0.5		"
USDAFS #6016	Koenig			0.5		"
USDAFS #6017	Pease			0.2		"
USDAFS #6774	Franks			0.3		1-25-60
USDAFS #6775	Zwicker #2			2.5		"
USDAFS #6776	Nipple			1.5		"
USDAFS #6779	Cresto			0.2		"
USDAFS #2798	Fury			1.0		3-21-47
USDAFS #3024	Zwicker			1.5		9-24-47
USDAFS #3498	King			1.0		5-05-50
USDAFS #3499	Aspen			0.5		"
USDAFS #3500	Dressel			1.0		"
USDAFS #3501	Mc Cabe			1.0		"
USDAFS #3502	Goble Canyon			0.5		"
USDAFS #3622	Elk			1.5		11-28-50
USDAFS #3625	Far Draw			2.5		"
USDAFS #3626	Perkins			1.5		"
USDAFS #3801	Lower Glade			1.0		5-01-52
USDAFS #3803	Albert			1.0		5-14-52
USDAFS #3804	Peeled Pine			1.5		"
USDAFS #3805	Chicken			1.0		"
USDAFS #6140	Rock Bottom			0.8		4-20-59
USDAFS #6793	Disappointment #1			1.5		2-24-60
USDAFS #6794	Disappointment #2			1.5		"
USDAFS #6795	Dead Snag			2.0		"
USDAFS #5269	White Sands			0.2		10-10-57
USDAFS #5270	Evans					"
USDAFS #1278	Baird			2.5		10-17-41
USDAFS #1279	Bald Hill			2.5		"
USDAFS #1280	Beaver Camp			2.5		"
USDAFS #1282	Beef Trail			25.0		"
USDAFS #1283	Bell Canyon			2.0		"
USDAFS #1285	Willow Divide			0.5		"

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A. F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #1288	Turner			1.0	10-17-41	
USDAFS #1292	Trimble Point #3			3.0	"	
USDAFS #1294	Trimble Point #1			2.0	"	
USDAFS #1295	Travis			3.0	"	
USDAFS #1299	Sunshine			0.5	"	
USDAFS #1301	Stoner Mesa			0.8	"	
USDAFS #1305	Silbo			3.5	"	
USDAFS #1307	Sand Rock			1.0	"	
USDAFS #1308	Salter			4.5	"	
USDAFS #1309	Rocky			1.0	"	
USDAFS #1312	Pony			4.0	"	
USDAFS #1313	Plateau			1.5	"	
USDAFS #1318	15			1.5	"	
USDAFS #1319	Mc Kinney			1.0	"	
USDAFS #1326	Mair			0.5	"	
USDAFS #1327	Lost Park			1.5	"	
USDAFS #1328	Lost Lake			1.5	"	
USDAFS #1330	Long Park Lake			5.5	"	
USDAFS #1331	Long Park			1.5	"	
USDAFS #1332	Long Draw			10.5	"	
USDAFS #1333	Lone Mesa			1.5	"	
USDAFS #1337	Little Elk			2.5	"	
USDAFS #1339	Little Beaver			6.5	"	
USDAFS #1340	Lake Clydia			1.5	"	
USDAFS #1341	Lake			1.5	"	
USDAFS #1343	Knoll			3.0	"	
USDAFS #1344	Johnson			2.0	"	
USDAFS #1345	Redd			0.8	"	
USDAFS #1347	Hosea			3.0	"	
USDAFS #1349	Holly			5.0	"	
USDAFS #1350	Hinchman			10.0	"	
USDAFS #1353	Groundhog Point			1.5	"	
USDAFS #1354	Gordon			2.0	"	
USDAFS #1355	Glade Point			7.0	"	
USDAFS #1356	Glade Lake			10.4	"	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A. F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #1357	Glade			4.0	10-17-41	
USDAFS #1358	Geren			9.2	"	
USDAFS #1359	Garbareno			4.0	"	
USDAFS #1360	Flat Iron			1.0	"	
USDAFS #1361	Five Pine			1.0	"	
USDAFS #1362	Ferris			30.0	"	
USDAFS #1363	Fader			3.0	"	
USDAFS #1366	Dutchmans Lake			5.0	"	
USDAFS #1368	Dry Lake			1.5	"	
USDAFS #1370	Dove			3.0	"	
USDAFS #1371	Divide			1.5	"	
USDAFS #1373	Cornwallis			2.5	"	
USDAFS #1376	Coffee Camp			3.0	"	
USDAFS #1377	Clyde Lake			0.8	"	
USDAFS #1380	Carlyle			3.5	"	
USDAFS #1381	Cabin			33.0	"	
USDAFS #1383	Brumley			1.0	"	
USDAFS #1384	Bradfield			2.0	"	
USDAFS #2460	Lower Glade			0.5	3-08-45	
USDAFS #2461	Cold			0.8	"	
USDAFS #2462	Willow Trail			0.5	"	
USDAFS #2464	Park Spring			0.2	"	
USDAFS #2465	Jose Spring			0.2	"	
USDAFS #2467	Corner			0.8	"	
USDAFS #2468	Wild Horse			0.5	"	
USDAFS #2482	Crooked			1.5	3-19-45	
USDAFS #2580	Rogers 1142			2.0	7-26-45	
USDAFS #2581	Rock Park 1138			1.0	"	
USDAFS #2582	Doe			1.0	"	
USDAFS #2681	Dry Gulch 1172				3-13-46	
USDAFS #3880	Young			0.2	10-28-52	
USDAFS #3954	North Nipple			1.5	12-09-52	
USDAFS #4129	1			5.0	11-04-53	
USDAFS #4130	2			5.0	"	
USDAFS #4217	Drift Fence			1.4	1-12-54	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #4218	Oak			1.5	1-12-54	
USDAFS #4221	Fox Den			1.5	"	
USDAFS #4223	Plateau			1.0	"	
USDAFS #4283	Doe Reseeding			0.8	8-24-54	
USDAFS #4367	Guard Station			1.0	4-14-55	
USDAFS #4369	Upper Willow			1.0	"	
USDAFS #4370	Upper Little Beaver			1.0	"	
USDAFS #4371	Palmer			1.0	"	
USDAFS #4375	Robert			1.0	"	
USDAFS #4378	Dunham Place			1.0	"	
USDAFS #4395	Retherford			1.0	10-21-55	
USDAFS #4396	Sagebrush			1.0	"	
USDAFS #4397	Wild Horse #2			1.0	"	
USDAFS #4405	Dry Canyon			1.0	"	
USDAFS #4507	Bear			1.0	2-14-56	
USDAFS #4508	Evans			1.0	"	
USDAFS #4509	Bankston			0.5	"	
USDAFS #4510	Horse			0.5	"	
USDAFS #4511	Reveg			0.5	"	
USDAFS #4512	Dawson			1.0	"	
USDAFS #4513	West			0.5	"	
USDAFS #4514	Royce			0.5	"	
USDAFS #4515	Ryman			0.5	"	
USDAFS #4516	Seep			0.5	"	
USDAFS #4517	Canyon			2.0	"	
USDAFS #4540	Black Snag			0.5	2-16-56	
USDAFS #4739	Doe Point			0.5	8-31-56	
USDAFS #5265	Narraguinnep			1.0	10-01-57	
USDAFS #5271	Snag			0.5	10-10-57	
USDAFS #5306	Flagstaff				11-05-57	
USDAFS #7179	Pot Hole			1.5	7-20-60	
USDAFS #7197	Oak Draw			1.5	7-28-60	
USDAFS #8275	Mud Lake	W. Dolores R.	2.0	0.5	12-06-61	
USDAFS #8276	Wild Cow	W. Dolores R.	3.0	0.5	"	
USDAFS #9118	Tool Box Draw	W. Dolores R.	8.0	1.5	10-18-62	

(Handwritten mark)

B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDAFS #9119	Kuhlman	W. Dolores River	7.0	1.5	10-18-62	
USDAFS #9183	Sheep	Groundhog Creek	4.0	0.8	11-29-62	
USDAFS #9202	Arnold	Lost Canyon	5.5	0.2	12-04-62	
USDAFS #9203	Ancil	Cabin Creek	4.5	0.1	"	
USDAFS #9204	Aaron	Lost Canyon Cr.	3.0	0.2	"	
USDAFS #9205	Barney	Narraguinnep Can.	6.5	0.2	"	
USDAFS #9206	Buster	None		0.1	"	
USDAFS #9208	Andrew	Little Beaver Cr.	5.0	1.5	"	
USDAFS #9260	Abbot	Long Park Cr.	4.5	1.5	12-31-62	
USDAFS #10592	Neil #1-64	Ryman Creek	6.0	2.0	12-14-64	
USDAFS #10593	Bench #13-64	W. Dolores R.	3.0	1.0	"	
USDAFS #10594	Hap #12-64	W. Dolores R.	1.0	1.0	"	
USDAFS #10595	Steer #11-64	Cottonwood Cr.	2.0	1.0	"	
USDAFS #10596	Vance #10-64	Mavreeso Creek	2.0	2.0	"	
USDAFS #10597	Trail #9-64	Cottonwood Cr.	10.0	2.0	"	
USDAFS #10598	Quakie #7-64	Mavreeso Cr.	7.0	2.0	"	
USDAFS #10599	Border #2-64	Plateau Creek	10.0	2.0	"	
USDAFS #10609	Mesa Point #5-64	Disappointment	6.0	2.0	"	
USDAFS #10610	Island #4-64	Disappointment	4.0	1.0	"	
USDAFS #10611	Study Plot #6-64	Mavreeso Creek	9.0	2.0	"	
USDIBLM #76	Klondike			2.5	7-15-41	
USDIBLM #77	Disappointment #1			9.0	"	
USDIBLM #117	Gyp Valley #1			2.2	"	
USDIBLM #124	Gyp Valley #3			4.2	"	
USDIBLM #127	Disappointment #2			5.8	"	
USDIBLM #782	Dove Creek			1.8	10-08-41	
USDIBLM #1812	White Rock			1.2	7-17-42	
USDIBLM #1813	Mexico #1			1.0	"	
USDIBLM #6916	Dolly			1.0	4-29-60	
USDIBLM #7226	Adams #1			1.5	8-08-60	
USDIBLM #7227	Adam #2			1.0	"	
USDIBLM #7515	Pehrson #2			1.0	11-30-60	
USDIBLM #7743	Emery Diversion			1.8	4-14-61	
USDIBLM #7873	Femur Diversion			3.0	6-20-61	
USDIBLM #7874	Fender Diversion			2.5	"	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

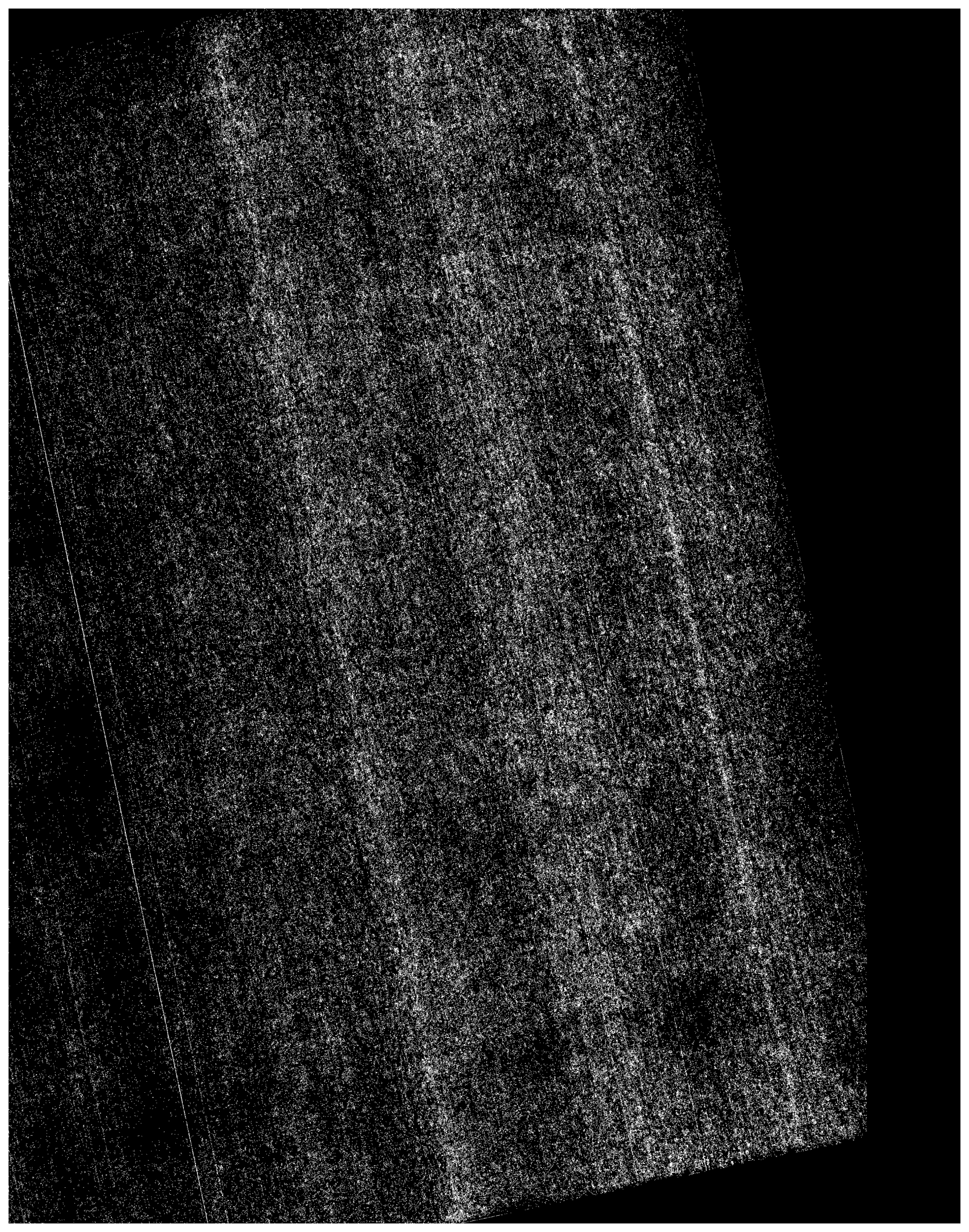
<u>OWNERS NAME</u>	<u>TANK NAME</u>	<u>STREAM</u>	<u>HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY</u>	<u>A.F. CAP.</u>	<u>PLANS FILED</u>	<u>DATE INSPECTED</u>
USDIBLM #7876	Forge Diversion			2.5	6-20-61	
USDIBLM #7877	Flex Retention			3.5	"	
USDIBLM #7880	Fine Retention			1.0	"	
USDIBLM #8035	Fame Diversion			2.0	7-31-61	
USDIBLM #9923	Hay Ret. C4-R-245	Disappointment	9.7	1.5	10-24-63	
USDIBLM #9924	Haft Diversion-246	Disappointment	11.0	2.5	"	
USDIBLM #10206	Howdy Div.-322	Disappointment	10.7	2.0	4-29-64	
USDIBLM #10207	Hombre Div.-323	Nicholas Wash	11.8	3.0	"	
Veach, G. L. #7505	Veach #11			1.0	11-25-60	
Veach, Luther #7372	Veach #8			0.8	9-16-60	
Veach, Luther #7428	Veach #9			0.5	10-13-60	
Veach, Luther #7429	Veach #10			0.5	"	
Veach, R.D. #11863	R.D. Veach #1-68	Groundhog Creek	3.0	1.0	11-04-68	
Wancura, Frank #9197	Frank Wancura #1	Dolores River	9.3	2.0	11-29-62	
Warren, Frank #5997	Warren #1			3.0	12-29-58	
Warren, Frank R. #6507	Warren #1			2.5	9-18-59	
Waschke, W.E. #4924	Waschke			4.0	2-14-57	
Washburn, Clem #7672	Washburn #1			0.2	2-28-61	
Washburn, Clem #7673	Washburn #2			1.0	"	
Wilhite, T.K. #7188	Wilhite #1			5.5	7-21-60	
Willbanks, Stanley #12035	Stanley Willbanks #1-69	Dolores River	8.0	2.0	7-09-69	
Williams, Jessie #12023	J.P. Williams #1-69	Bishop Canyon	6.0	2.5	7-07-69	
Wright, Robert #12328	Robert Wright #1	Williams Draw	8.0	2.5	8-07-70	
Wright, Robert #12329	Robert Wright #2	Williams Draw	10.0	4.5	"	
Young, George M. #6361	Chokecherry Draw			0.8	7-29-59	
Young, George M. #3760	Young #2			3.0	11-07-51	

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B. LIVESTOCK WATER TANKS

DISTRICT 69 (continued)

OWNERS NAME	TANK NAME	STREAM	HEIGHT FT. STREAM BED TO BOTTOM OF SPILLWAY	A.F. CAP.	PLANS FILED	DATE INSPECTED
Zwicker, Eldon #6424	Zwicker #1			2.0	8-27-59	
Zwicker, Eldon #7479	Pole Fence Pond #3			2.0	11-16-60	
Zwicker, Eldon #12124	Lila #1-69	Plateau Creek	12.0	3.0	9-22-69	
J S Forest Service #3624	Near Draw			1.5	12-28-50	



JOHN A. LOVE
Governor



C. J. KUIPER
State Engineer

DIVISION OF WATER RESOURCES

GEORGE E. BARCLAY P.E.
IRRIGATION DIVISION ENGINEER
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DURANGO, COLORADO 81302
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December 3, 1970

Mr. C. J. Kuiper, State Engineer
1845 Sherman Street
Denver, Colorado 80203

Dear Kupe:

Attached herewith is Division VII's Annual Report for the 1969-70 water year. We feel that this report is complete with a few exceptions.

This year, due to the floods in September, the U.S. Geological Survey is far behind in their tabulations of flows for different stations in this Division. In order to study the maximum floods on the different streams, they spent approximately three to four weeks in making slope studies to determine maximum flows.

We have also left blank, the listing of livestock tanks under VI. B. We have, we feel, most of the copies of the applications for the livestock tanks built in this Division, but they are in the "dead" file, and we did not have the time to resurrect them, index them, and check them against your records. This will be done at a later date. It will also be necessary for us to complete the Annual Report when flow data from the U.S.G.S. is available.

We are a little bit at sea to understand what is desired under "water budget". Is this for last year or for next year? Budget is defined by Webster as "a financial statement of estimated income and expenses of a country for a period of time; also a plan for financing a government based on such a statement". In other words, a budget is something we look to the future for, and we feel that this is a misnomer under III. D. General.

Black's Law Dictionary defines budget as "a name given in England to the statement annually presented to Parliament by the Chancellor of the Exchequer, containing estimates of maximum revenues and expenditures".

Under IX. Water Commissioners' Summary, we feel that "average demand" is also a misnomer and this should be "duty of water" or "use of water", or

Mr. C. J. Kuiper, State Engineer

Page 2

December 3, 1970

some other title. Demand is defined as "to ask or call for, with authority; to claim as due; to require; to be needed of; to make demand". A general water user could "demand" the water necessary for him to raise a good crop, but this would not mean that he would get this water.

We feel that you mean under this title, the amount of water that really was secured by an individual owner, and not that which was "demanded" by him. We feel that the word "duty of water", or "amount of water used per acre" would be more in line.

Although this year has been a very strenuous one, and has presented many problems, we have enjoyed working out these problems and trying to solve them. We feel that with a few exceptions as listed above, Water Law 81 is satisfactory. We feel that working closely with the public, and with continuing to cement public relations, we can "sell" the new water law without undue difficulties.

Very truly yours,


George E. Barclay
Division Engineer

GEB:alf
Enc.

ANNUAL REPORT
WATER DIVISION VII
1970

PREPARED BY
GEORGE E. BARCLAY
DIVISION ENGINEER
DURANGO, COLORADO

DIVISION ENGINEER'S ANNUAL REPORT

1969 - 1970 WATER YEAR

DIVISION VII

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1970 ANNUAL REPORT

DIVISION VII

DURANGO, COLORADO

EARTH

The geology of southwestern Colorado is dominated by a very large uplifted region in the San Juan Mountains, known as the San Juan dome, and an adjoining down-folded region to the south called the San Juan Basin. Both of these features were formed near the close of the Mesozoic Era as a consequence of the Laramide Orogeny, and are complimentary in nature.

The San Juan dome is exposed northward from Durango and is centered in the Needles-Grenadier Mountains region south of Silverton. Fluvial and glacial erosion of the crest of the uplift has stripped away the sedimentary section, exposing the Precambrian crystalline core of the range. Paleozoic and Mesozoic sedimentary rocks are well exposed along the flanks of the structural dome in the foothills of the San Juan Mountains, and a complete section totaling 17,000 feet of sedimentary rocks is present in the Animas River canyon between Baker's Bridge and Durango.

After denudation of the upland had progressed to a considerable degree, volcanic eruptions in the vicinity of Silverton spread volcanic materials over the top and eastern flank of the uplift in early Tertiary time, masking the underlying geology. The fluids and gasses which accompanied the eruptions were the source of economic mineral deposits in the heart of the uplift. Glacial erosion during Pleistocene time sculptured the range into the alpine upland we see now.

The large structural sag of the San Juan Basin lies south of Durango and extends some fifty miles into northern New Mexico. The prominent hogbacks which lie generally east-west along the southern Colorado border mark the northern edge of the depression. Exposed strata in the Colorado portion of the Basin consist of Late Cretaceous and Tertiary sedimentary rocks which dip basinward, and many of the sandstone layers, such as the Mesa Verde and Pictured Cliffs formations, host large accumulations of natural gas along the northern flank of the basin. The sag formed as the San Juan uplift developed in latest Cretaceous and early Tertiary time, receiving vast quantities of sediments from the erosion of the uplift.

The country northwest of the San Juan Mountains which is drained by the Dolores River system is a part of a complex geologic province known as the Paradox fold and fault belt. The region is underlain by thick deposits of salt of Pennsylvanian age, the Paradox Formation, which flowed upward plastically in late Paleozoic and Mesozoic times, piercing the overlying strata and forming elongate diapiric structures. These "salt anticlines" were rather recently attacked by groundwater solution, removing some of the upper portions of salt in the piercement structures, and causing collapse of the roofs of the structures. The resulting exposures of the collapsed "salt anticlines" form prominent topographic valleys that trend in a northwest - southeast pattern. The Colorado representatives of this system are the Paradox, Gypsum, and Lisbon valleys. A large anticline, the Dolores anticline, parallels the salt-intruded structures and lies to the south. It is a poorly developed salt structure in that it was formed at least partially by salt flowage and thickening under the fold, but the salt did not pierce the overlying strata. Extensions of these structural lineations crop out in the San Juan Mountains superimposed on the general domal structure of that region. The Dolores River crosses each of these salt structures at random, apparently as the result of superposition of the drainage onto the structural features.

MAN

Southwestern Colorado is rich in history. Interspersed with the Ice Age, is evidence of prehistoric animals such as the Bison, Camel and Dinosaur. Although this is in the realm of the Folsom, Sandia, or Clovis Man, no actual evidence to date has been found in this exact locality.

The first evidence of human occupancy of these lands goes to the Indians living in wickiups, then pit-type houses. The tops of these houses were cone-shaped, covered with brush. The approximate age of this occupancy is fixed from 700 to 1000 A.D. The Indians subsisted mainly on roots, berries, seeds, and insects, and what wildlife that could be caught by hand. At about 1000 A.D., corn was introduced from Mexico. This changed the nomadic-type Indian into a more farming type individual. This started the era of the cliff dwelling Indians which occupied areas such as Mesa Verde during the period of 1050 to 1250 A.D. These Indians were divided into two different classes: first

the basket weavers who were identified by their flat heads, probably caused by carrying papoose boards; and second, the Pueblo type Indians occupying pueblos throughout the southwestern part of the United States. Both classes lived in small pueblos and cliff dwellings. The exodus of these Indians was probably brought about by the twenty-three year drought between 1276 to 1299 A.D. This period has been established from tree ring studies.

During the succeeding centuries, nomadic Indians similar to the Utes and Comanches occupied the mountain areas, and Indians similar to the Arapahoe and Cheyenne occupied the plains. The civilization of these Indians was more primitive than the Pueblo or Cliff Dwellers, and livelihood was mainly the killing of buffalo by driving them over cliffs and clubbing them to death. Their bows and arrows were not effective against the thick hides of the buffalo.

The next period of civilization might be classified as the invasion and exploration of the Spanish. There is no evidence that the main Coronado Expedition ever came into the San Juan or Animas Valleys, although there is some evidence that hunting or exploratory forays might have been undertaken. In 1775, Escalante and Garcia passed through southern Archuleta County. At this time, there was a controversy over the hot springs at Pagosa Springs. This was claimed by both the Utes and the Navajos. The ownership was settled by a duel between Colonel Pfeiffer, chosen as the Utes' representative, fighting against a Navajo with a Bowie knife.

During succeeding years until the first visitation by trappers, there were continued wars between the Indians and the Spanish. From all indications, southwestern Colorado was visited by two different trapping companies: Antoine Roubidoux and Julius Lemon were trappers from the Rocky Mountain Fur Company under the guidance of General William Ashley during the period of 1824 to 1825. In 1831, a party of sixty men left St. Louis for Santa Fe; these individuals travelled up to the headwaters of the San Juan, having been hired by the St. Louis Fur Company, and rediscovered the hot springs at Pagosa Springs. During the period of 1846 to 1848, Colorado fairly well established itself due to the Mexican War.

The first modern irrigation in southern Colorado occurred in the 1850's in the San Luis Valley, when forty irrigation ditches were built. This was the first known modern irrigation, although all indications show that when corn was introduced from Mexico, the Pueblo Indians and Cliff Dwellers carried on a prim-

itive type of irrigation.

In 1863, Kit Carson, being hired by the Army, rounded up all the Navajos that could be found and took them to Ft. Sumner in New Mexico. This freed the country from raids by the Indians and opened it up for mining and settlers. The first mining location filed in the southwestern part of Colorado was in Silverton in 1871. The first county seat of La Plata County was at Parrot City, which was located approximately two miles north of old Ft. Lewis, on the La Plata River in 1875.

The first water filing we have in this Division was made on the Animas River on the first of June, 1874, by Charles Chavez. This was for water out of the Animas Ditch.

The Rio Grande Railroad first came to Durango in 1881. Durango was incorporated as a town on August 1, 1881, and the first land office opened in La Plata County in 1882. At that time, land was selling for \$1.25 per acre.

An interesting side note found in history, relates the saga of girls of "shady character" who accompanied the railroad men to Durango. The origin of these "lasses" was a town in New Mexico called Menaro. As the building of the railroad progressed north, they moved to Pagosa Junction. At this location, they were run out of town by the Indians, and subsequently set up new "headquarters" in Durango.

The first road established between Durango and Silverton was the old toll road built by Otto Mears. This road was first used around 1890. The Million Dollar Highway as it exists now, was first located between 1900 and 1910.

The use of irrigation water has been a gradual expansion from the original filing. In most cases, settlement was first made on the side streams, and later on the main streams throughout this Division.

WATER

Division VII is located within the upper Colorado River basin; our main drainages flow into the San Juan and Dolores Rivers. Starting with the eastern most main drainage, we will name the rivers that are within this Division: Navajo, Blanco, San Juan, Piedra Rivers; Siembritas Creek; the Pine, Florida, Animas and La Plata Rivers; Mc Elmo Creek; the Dolores River; and Disappointment Creek.

The elevation in this basin varies from 14,081 feet to approximately 4,500

feet. Within this Division are the following counties: Archuleta, La Plata, Montezuma, Dolores; fragments of Mineral, Hinsdale, San Juan, and San Miguel. The total population is approximately 39,020. The areas of different land classification are broken down as follows:

Irrigated pasture	51,870 acres
Irrigated farm lands	93,044 acres
Private grazing lands	930,454 acres
Dry farm lands	226,524 acres
Public lands, including Forest Service and waste lands	<u>2,888,691 acres</u>
TOTAL	4,633,815 acres

The total assessed valuation for all assessments including real estate, public utilities, and personal property is \$91,190,448.

The assessed value on irrigated lands vary from \$38.45 in La Plata County to \$23.28 per acre in Dolores County. The value for dry farm lands vary from \$20.98 per acre in Montezuma County to \$10.60 per acre in Archuleta County. On irrigated pasture, the valuation varies from \$17.98 per acre in Montezuma County to \$15.50 per acre in Archuleta County. On grazing land, values varied from \$4.08 per acre in Archuleta County to \$2.86 per acre in La Plata County. Timber valuation on private lands varied from \$0.92 per acre in Dolores County to \$2.24 per acre in La Plata County.

The main industries in this Division would be classed as lumbering, ranching, farming, tourism, and mining. We have tabulated the average annual precipitation and weather from five stations which are: Durango, Ft. Lewis, Silverton, Pagosa Springs, and Cortez. Generally speaking, the summer precipitation comes in the way of rain at all stations, although summer is limited to about one month in Silverton. In the winter time, snow is found at most of the stations, and most of the precipitation at this time of year comes from snow. The average precipitation varies at these stations from 26.64" at Silverton, to 10.16" at Cortez. The maximum precipitation at any station is recorded at 39.57" at Wolf Creek Pass. In all probability, the minimum precipitation is found at the lower end of Mc Elmo Canyon. Temperatures vary from an average of 35.1° at Silverton, to 48.8° at Cortez. The minimum at Silverton would be -25°, and the maximum at Cortez would be 98°.

The major usage of water at the present time in this Division is for irrigation. Within this Division we have three major irrigation projects - the Florida Irrigation District which encompasses 23,745 acres; the Pine River Project which encompasses 36,684 acres; and the Montezuma Valley Irrigation District which is approximately 35,000 acres. There is also the Jackson Lake Reservoir which supplies supplementary water to a number of different ditches within the Mancos River Watershed.

There are two large Bureau of Reclamation projects that have been authorized by Congress, and it is anticipated that construction will begin within the next five years. One of these projects is the Animas-La Plata Project in La Plata County, which has an anticipated acreage of 55,420 acres, of which 20,100 acres are for supplementary areas deficient of water, and 35,320 acres of new lands. The second large project proposed is the Dolores Project in Dolores County and Montezuma County for a total of 61,000 acres. This encompasses 28,660 acres of supplementary water for existing irrigated lands, and 32,340 acres of new land. Under these projects, there is some municipal water, but contracts have not been signed with the individual cities and the actual amount is still very much in question.

We are listing below private irrigation projects that we feel should be sponsored by the State of Colorado, that are not of sufficient size to be of interest as Federal projects. These are very vital both from an industrial standpoint, as well as an aid to tourism, ranching and farming. The future and major growth of all of Division VII hinges on the completion of the Federal and private water projects and the development of natural resources in the area. As stated above, there are great stores of coal and oil underlying this whole district. This, coupled with ample water, presents an industrial potential.

In keeping with ecological patterns present at this time, we would anticipate that most of the coal mining will be underground and that ways and means will be found reducing smoke-causing air pollution, making it possible that large power development plants will be established along the southern boundary of this State. With this supply of power, we anticipate some industrial plant influx.

The general pattern for ownership of land in this Division, is that private land is found on the valley floors. The mountains and upland territories are mainly Forest Service or Bureau of Land Management lands. Some of the lower

mesas and river bottoms are private lands with some exception being Bureau of Land Management Lands, and a large acreage of Indian Reservation and Indian Fee lands. A large amount of land within the valleys in this Division, as well as large areas of uplands, are being sold and subdivided. The land values have reached astronomical proportions. Much of the land is selling at \$1,000 to \$5,000 per acre. It is anticipated that the population of this general area will be trebled in the next ten years.

The main use of grazing land at the present time is for steer-feeding operations. Most of the farmers, due to a lack of help and the high cost of winter feeding, are no longer in the cow and calf ranching business. With the breakdown of the larger farm units into small summer acreages, coupled with the consolidation of acreages for larger farming and ranching units, the entire economic picture of this Division is being changed very abruptly.

Affecting this picture will be the completion of the La Plata and Dolores, Federal irrigation projects. The cost of placing water on these lands will prohibit the use of water for its present usages, such as irrigated pasture and hay lands. Its usages will have to be changed to the raising of vegetables, fruit, or some other more concentrated use, in order that the per-acre income on these lands will be enough to pay for the construction and maintenance costs.

It is anticipated that lumbering will be maintained on a replacement basis. We also anticipate future construction of large steam plants for the production of electric power.

OTHER PROPOSED PROJECTS

During the last decade, the economy of southwestern Colorado has changed from a prosperous farming and mining community to a depressed area. We feel that this is due primarily to the size of ranch and farm units which are not competitive with the present large units found elsewhere in the west. To correct this deficiency, it is felt that ranch and farm units will have to be enlarged, local incomes will have to be supplemented by other full or part-time employment, and the type of farming and ranching will have to be changed.

We feel that this part of Colorado is blessed with potentials that should make it one of the outstanding economic regions of the west; with the availability of surplus water; availability of large beds of coal; availability of natural gas and oil; and the availability of a good labor market.

Under the labor market, we would like to stress that competent labor may be secured from four sources: 1 - Indian labor from the Ute and Jicarilla-Apache Tribes; 2 - Spanish-American labor who have been displaced due to changes in the economic picture; 3 - Farmers and ranchers who can no longer make an economic livelihood on their small farm units; 4 - Retired persons who have to live on small acreages in this portion of Colorado. We feel that the labor market will increase during the heavy influx of people into this area. Large ranches and farms are being subdivided and people who are either retired or semi-retired will be seeking employment. It is estimated that there will be at least 100,000 additional people residing in this general area in the next fifteen years.

To make more workable units for multiple use of our water resources, we are listing eleven proposed water development projects. In most cases, reconnaissance surveys have been made on these projects. They all need financial support for construction and completion. We will endeavor to give a short resume of each of the proposed projects.

1. A west side Navajo Diversion Ditch taking water from the Navajo River at about the head of the King or Upper Navajo Ditch. This would make available water for 1,800 acres of land; approximately 60% supplementary irrigation and 40% use for new land. Most of this land will be on either the Navajo or Little Navajo River Watershed. Under the 1968 adjudication for District 29 at Pagosa Springs, this ditch was allocated 30 c.f.s. under a conditional decree. It was estimated that cost of the construction of the ditch and its control structures would be \$80,000.
2. A diversion ditch out of the Blanco River at about the confluence of Fish Creek, diverting from the Blanco River, Fish and Big Branch Creeks: this ditch will follow along the eastern slopes of the Blanco River coming into Coyote Park through the Spence Creek Saddle. This would supplement irrigation on the Blanco, Coyote Creek and Montezuma Creek watersheds. The ownership of this land is Indian Tribal, public domain, and private. The length of this ditch would be approximately twenty-five miles, and there would be a supplementary storage reservoir built in Coyote Park. The total cost of this project would be approximately \$350,000. The proposed use of this water would be for

agriculture, fish and wildlife, and recreation. There would be a potentially heavy industrial use of this water as it traverses areas of heavy coal and oil deposits. Much of the project's potential labor market could be secured from the Spanish-American communities of northern New Mexico, and the Indians from the Jicarilla-Apache Reservation. It is estimated that this project will furnish supplementary irrigation water to 2,400 acres; 1,200 acres of new land will be put under this project. Under the 1968 adjudication for District 29, this ditch was given 60 c.f.s. of water under a conditional decree.

3. A proposed diversion ditch will take water out of the west side of the East Fork San Juan River, approximately one mile upstream from the confluence of the East Fork San Juan River. This project is set up for a multiple-use water diversion for supplementing areas that are presently deficient in irrigation water; municipal use, fish and wildlife, recreation, and industry. The introduction of these new waters will supplement the irrigation of approximately six thousand acres; 3,000 acres of new land will come under new irrigation. The location of this land is on the east side range of the San Juan. This water also traverses large areas of large deposits of coal, giving the future use of water a high industrial potential. Within this watershed, there are two potential reservoir sites that would have a high recreational and fish and wildlife value. It is estimated that the cost of this ditch, plus the necessary structures, would be approximately \$600,000. Under the 1968 adjudication for District 29, this ditch was given a conditional decree of 150 cubic feet per second of water.
4. West Fork Canal: water for this ditch is diverted out of the San Juan, supplying supplementary water for ranches on the west side drainage of the San Juan. It will also furnish supplementary water to water-deficient areas on Four Mile and Cabe Creek. Potential use for this water would be supplementary irrigation for domestic and industrial uses.
5. Piedra Falls: this is an enlargement of the present Piedra Falls Ditch to take care of supplementary and additional irrigation in the

- Big Pagosa, Little Pagosa and O'Neal Park drainages and areas. This will furnish mainly supplementary water to 3,000 acres. There is also some possibility for recreational and wildlife use of this water.
6. A reservoir on the East Fork San Juan River: location of this ditch would be at about the head of the canyon of the stream. Due to rock formation and incomplete studies, we are reluctant to make an estimate as to the cost of this dam. Under the 1968 adjudication of District 29, 35,200 acre feet were conditionally decreed to this project.
 7. A reservoir on the West Fork San Juan River: location would be at about the diversion point of the Chapson-Howe Ditch. The purpose of the reservoir will be to more beneficially use water available in the West Fork San Juan. This reservoir will be for multiple uses; irrigation, dams, industrial, fish and wildlife, and recreation. Under the 1968 adjudication of District 29 - 39,356 acre feet were conditionally adjudicated for this reservoir.
 8. Enlargement of the present Red Mesa-Ward Reservoir - this reservoir is located in La Plata County on Hay Gulch. It is proposed to raise the present reservoir ten feet. This would give supplementary water for presently irrigated lands. Estimated cost of this enlargement would be \$80,000.
 9. State Line Reservoir: the proposed site for this reservoir would be across the La Plata River which is above the confluence of Long Hollow. The manipulation of this water would be in conjunction with the compact on the La Plata between Colorado and New Mexico. In certain years, it is very difficult to beneficially use all the flood waters that are available for irrigation on this watershed. Large volumes of water pass down this river without any usage. In the construction of this dam, flood waters would be stored in order that compact obligations to New Mexico could be fulfilled without detriment to the Colorado water users' rights. The water users in the states of New Mexico and Colorado on the La Plata River, are very much in favor of this project. There is a good reserve of labor for the construction of this reservoir coming from local ranchers and farmers, and Ute and Ute Mountain Indians. The estimated cost of construction of this dam would be \$300,000. We feel that even with the approval

and construction of the Animas-La Plata Project, that this dam could be beneficially used in conjunction with that project.

10. Bear Canyon Storage Reservoir located eleven miles upstream from the confluence of Bear Creek and the Dolores River: this dam would be approximately 115 feet high and would impound 7,261 acre feet of water. The main purpose of the additional water would be to supplement available water on the Montezuma Valley Irrigation Ditch. It will also make available supplementary water to some of the ranch lands along the Dolores River that are, at the present time, lacking sufficient water for irrigation.
11. A dam on Coyote Creek, Archuleta County: at the point where Coyote Creek enters the canyon on Bigbee Bros. Ranch. This is an ideal location for a dam at a height of 30 feet and a maximum length of 250 feet, in which 1,400 acre feet of water can be impounded. Estimated cost of this dam is \$35,000. The water would be used for irrigation, fish culture, recreation, and with a high potential industrial and domestic use. In the 1968 adjudication, a conditional decree for 1,371 acre feet was given this project.

In addition to the above list of projects, there are potential water development projects located in the Disappointment Creek Watershed, and also parts of the San Miguel Watershed.

In summarizing the above potential projects, we feel that the financing of the construction could come from the following sources:

- | | |
|------------------------------------|-----|
| 1. Soil Conservation monies | 50% |
| 2. Four Corners Development monies | 30% |
| 3. State of Colorado monies | 20% |

We feel that it is highly desirable that a revolving fund be set up under the State Engineer's Office for the purpose of developing projects of the nature of the ones listed above. With the development of the upper and lower Colorado River Basin, the time is now that Colorado should make use of the water allocated to her under the Upper Colorado River Compact.

The need for these projects are: supplementing present deficiency of water on ranch and farm units; enlarging ranch and farm units to competitive size; developing water for potential industrial and domestic usage; developing water for recreation use; and alleviating the present deficiencies found in "depressed area" situations.

II. PERSONNEL

The following is a list of the personnel in this Division for the period of November 1, 1969 to November 1, 1970:

<u>NAME</u>	<u>POSITION</u>	<u>DISTRICT</u>	<u>MONTHS WORKED</u>	<u>MILEAGE</u>
George E. Barclay	Division Engineer		12	18,101 P.* 4,962 S.
Thomas A. Kelly	Asst. Division Engineer		12	962 P.* 9,123 S.
Ann-L. Fauth	Clerk		12	(1,161)P.
Terry P. Alley	D.W.C.	30	9 3/4	8,083
Neil Bankston	W.C.I.	69	3 1/2	3,619
Roy M. Brown, Jr.	D.W.C.	29	9 1/4	14,337
George E. Davis	W.C.I.	30	11 1/4	12,697
George Edmonson	D.W.C.	32	9 1/4	8,831
Glen E. Humiston (new employee May 1970)	W.C.I.	34	6	5,531
Chris Jones (retired April)	W.C.I.	34	4 3/4 (sick leave 4 mos.)	241
Edward C. Kennedy	W.C.I.	33	11	8,387
Russell J. Kennedy	D.W.C.	33	10	8,083
William P. Lynn	W.C.I.	29	10 1/4	10,032
Ronald R. Robinson	D.W.C.	29	6	7,407
Bob R. Shahan	D.W.C.	29	5 3/4	3,140
Lawrence J. Shock	D.W.C.	31	8	5,083
Avrit G. Sparks	W.C.I.	31	10 3/4	11,683
Wilfred Speer	D.W.C.	32	6	<u>7,003</u>
TOTAL				133,220

* P. - private vehicle

S. - State vehicle

III. WATER SUPPLY

A. SNOW PACK

<u>SNOW PACK</u>	<u>NO. OF COURSES</u>	<u>THIS YEAR'S SNOW WATER PERCENTAGE</u>	
		<u>LAST YEAR</u>	<u>AVERAGE</u>
Animas	6	99	122
Dolores	4	127	175
San Juan	3	83	91

This year was spent in public relations and setting up the necessary controls and stations in order to carry on a weather modification program. Although there were some instances of weather modification programs in this Division, they were of little significance. The overall weather modification by the Department of the Interior is to begin in the fall of 1970.

<u>WATER SUPPLY</u>	<u>1000 A.F. FORECAST</u>	<u>% OF NORMAL</u>	<u>AVERAGE</u>	<u>ACTUAL</u>	<u>% OF NORMAL</u>
Animas at Durango	375	92	409		
Dolores at Dolores	210	91	231		
La Plata at Hesperus	17	71	24		
Los Pinos at Bayfield	140	72	194		
Piedra River at Piedra	118	72	163		
San Juan at Carracas	265	70	379		

STREAM SUPPLY OUTLOOK

FLOW PERIOD

Florida	Spring- Exc. : Avg.- Summer
Mancos	" Exc. : Avg. "
San Miguel	" Exc. : Avg. "

THIS YEAR MOISTURE AS PERCENT OF

<u>SOIL MOISTURE</u>	<u>NO. OF STATIONS</u>	<u>LAST YEAR</u>	<u>AVERAGE</u>
River Basin	3	90	70
Dolores	2	87	87
San Juan	2	81	71

B. SUMMER PRECIPITATION

After below-normal precipitation in April and the forepart of May, we received an above-normal amount of precipitation during the months of June and

July. August was about normal. Then in September "the rains came". During September we had 4.53" of rainfall in Durango, most of this coming on September fourth and fifth. We were "blessed" again by heavy downpours on the twelfth and thirteenth. The same periods of rainfall also occurred at Ft. Lewis where they received 4.83"; Silverton had 7.47"; Pagosa Springs 5.68"; and Cortez recorded 1.98". Much of this rain, especially the second go-round, occurred in limited areas. On Yellowjacket Creek between Cortez and Dove Creek, records of up to 18" of rain were recorded in a twelve-hour period. Also, in other areas in Montezuma County, heavy rains fell. It seems that the weather station at Cortez missed the heaviest rains. No effort was made to suppress hail in this area.

C. FLOODS

The following peaks of floods occurred either on the fifth or sixth of September, or on the twelfth and thirteenth:

<u>STREAM</u>	<u>C.F.S. DISCHARGE</u>
Navajo River + -	1,700
Blanco River	2,340
San Juan River	6,580
Piedra River	7,980
East San Juan River	1,710
West San Juan River	2,520
Vallecito River	5,480
Mancos River at Towaoc	4,530
McElmo Creek at Ismay	2,880
Dolores River at Rico	1,930
Dolores River at Dolores	5,180
Disappointment Creek	2,700
Dry Creek	5,660
Animas River	11,820

To date, we do not have any definite information as to the intensity of these storms. The Bureau of Reclamation estimates the storm on the Blanco River was a sixty-year storm. We have rough estimates of up to 10,000 c.f.s. occurring on Yellowjacket Creek between Cortez and Dove Creek. Damages were sustained

on many of the water courses. This whole area was declared a disaster area. Teams composed of Water Commissioners, Bureau of Reclamation and O.E.P. personnel; and Army Engineers, made damage surveys on most of the water courses. Ditch headings were hard hit. Below we are listing the damages incurred to ditch headings by counties:

<u>COUNTY</u>	FLOOD DAMAGE NUMBER		<u>AMOUNT</u>
	<u>LESS THAN \$300 PER DITCH</u>	<u>MORE THAN \$300 PER DITCH</u>	
Archuleta		47	\$43,085
Archuleta	45		9,110
La Plata		11	6,408
Montezuma		26	23,634
Hinsdale		2	2,970
Hinsdale	5		1,030
Mineral		4	5,500
Mineral	4		830
Dolores		4	6,800

You will note on this tabulation that we have not included damage in some counties where the amount was less than \$250, depending on the team making the survey. Some teams did not list this damage, and, therefore, they are not available.

Hard hit during this flood and accounting for a large amount of damage, were roads and bridges. On the Blanco River, four bridges were either washed out or severely damaged; on the San Juan River, at least four bridges were washed out; on the upper Piedra River, with the exception of one, all bridges were washed out. A large amount of debris was deposited in stream beds also. The Army allowed a substantial amount for clean-up work on river channels.

Good progress is being made on the repair of ditch headings, roads and bridges. It is hoped that a large number of these will be completely repaired before winter sets in.

D. GENERAL

Below is a "water budget" tabulation for the season November 1 through October 31, 1970

III. D. GENERAL

We feel that a "water budget" is a very fine thing and that as water becomes scarce, it will become more and more important. In this Division, we only have a few streams that go on "call". Also, we do not have gaging stations to accurately compile a water budget. We have good stations and good control of the La Plata River. A good water budget can be worked up for this stream.

We have just completed the installation of measuring devices on the Navajo, Little Navajo and Blanco Rivers. Next year it will be possible to work up a good water budget for these streams.

If and when the Animas-La Plata Project is constructed, and a few of the other proposed projects are realized on the Animas River, it will be necessary to establish a gaging station near the Colorado-New Mexico state line; then, at that time, we can work out a water budget for the Animas River Watershed.

Under our proposed budget for 1970-72, we proposed a gaging station on the Mancos River. When this is installed, we can work out a good water budget for that stream.

When the Central Arizona Project is completed, it will be necessary for us to instal more gaging stations on all of the streams that flow into the Colorado River, in order that we can directly "budget" the upper Colorado River water that is due the State of Colorado.

E. UNDERGROUND WATER

<u>DISTRICT</u>	<u>UNDERGROUND WATER</u>		<u>IRRIGATION</u>	<u>U S E</u>		
	<u>NO. OF WELLS</u>	<u>AMOUNT C.F.S.</u>		<u>MUNICIPAL</u>	<u>INDUSTRIAL & COMMERCIAL</u>	<u>STOCK & DOMESTIC</u>
29	138	.2527				x
	11	.5022			x	
	1	.1000	x			
30 - 31	415	.7349				x
	5	.0120			x	
	3	.0086	x			
	2	.0080			x	
32	72	.0996				x
	7	.0743		x		
	14	.1428			x	
34	57	.0528				x
	1	.0200		x		
69	17	.0073				x
	1	.0216			x	
	8	.0441			x	
	2	.0080			x	

The total yield of water in the entire Division from underground aquifers,

is a little over two cubic feet per second. This represents 754 wells. The total yield bears out the fact that in this Division we do not have any known aquifers that produce any appreciable amount of water.

We have one well listed for irrigation and that is for 0.10 c.f.s. The importance of wells for irrigation in this Division at the present time, is of a very minor nature.

F. TRANSMOUNTAIN DIVERSIONS

<u>NAME OF DITCH</u>	<u>SOURCE OF SUPPLY</u>	<u>RECIPIENT</u>	<u>AMOUNT A.F.</u>
Pine River-Weminuche Pass Fuchs Ditch	Pine R.	Liland Fuchs & Harley Fuchs - Del Norte	423.0
Weminuche Pass Ditch Raber-Lohr Ditch	Pine R.	Hilde Lohr & Leon Raber Del Norte	1060.0
Treasure Pass Ditch	San Juan	Fred Falk - Del Norte	328.0
Williams Creek Squaw Pass	Piedra R.	Loren Sanderson & Craton Sanderson - Monte Vista	108.0
Piedra Pass Ditch	Piedra R.	Colo. State Game & Fish	55.0
Carbon Lake Ditch	Animas R.	Helen Tinkler, et. al Montrose	277.0
Red Mountain Ditch	Animas R.	John Jutten - Silverton	117.0

G. RESERVOIR STORAGE

<u>NAME OF RESERVOIR</u>	<u>SOURCE OF SUPPLY</u>	<u>AMOUNT 11-1-1969</u>	<u>AMOUNT BEGINNING IRR. SEASON</u>	<u>AMOUNT 10-31-1970</u>
Red Mesa Ward	La Plata River Hay Gulch	870.00	1,200.00	905.00
Vallecito	Pine River	79,737.00	83,022.00	74,507.00
Wommer	Little Bear Creek	101.90	220.00	150.50
Belmead Lake	Rincon Creek	200.00	496.00	400.00
Dunham	Groundhog Creek	80.00	100.00	85.00
Garner	Bear Creek	30.00	36.00	30.00
Morrison	Morrison Creek	70.00	116.00	70.00
Groundhog	Fish Creek	14,000.00	21,710.00	13,636.00
Fall View	Navajo River	7.78	7.78	7.78
G. S. Hatcher	Stollsteimer	1,400.00	1,729.00	1,675.00
Harris & Boone	Blanco River	205.00	205.00	190.00
Hersch	Stollsteimer	10.00	16.00	14.00

G. RESERVOIR STORAGE (Continued)

<u>NAME OF RESERVOIR</u>	<u>SOURCE OF SUPPLY</u>	<u>AMOUNT 11-1-1969</u>	<u>AMOUNT BEGINNING IRR. SEASON</u>	<u>AMOUNT 10-31-1970</u>
Linn & Clark	Stollsteimer	5.00	10.00	150.00
Spence	Coyote Creek	360.00	441.00	360.00
Stevens	Stollsteimer	400.00	600.00	400.00
Wilson	Blanco River	7.00	7.00	7.00
Jackson Gulch	West Mancos River	6,013.00	9,980.00	6,506.00
Bauer No. 1	Chicken Creek - Crystal Creek	60.00	350.00	115.00
Bauer No. 2	Chicken Creek - Crystal Creek	120.00	1,532.00	400.00
Big Pine	Turkey Creek	40.00	260.00	90.00
Summit	Lost Canyon	937.00	4,795.00	1,200.00
A.M. Puett	Lost Canyon	400.00	2,257.00	600.00
L.A. Bar	Chicken Creek	50.00	72.00	18.00
Webber	Middle Mancos River	270.00	270.00	170.00
Totten	Dolores River	1,600.00	3,302.00	1,600.00
Narraguinnep	Dolores River	8,500.00	19,050.00	9,500.00
Lemon	Florida River	29,301.00	38,624.00	29,920.00
Short	Florida River	40.00	40.00	40.00

IV AGRICULTURE

The main crops raised in this Division are hay, wheat and beans. The beans are raised mainly on dry lands. This year's hay crop yields were very good where there was sufficient water. Probably the yield was better than in some places where they had insufficient water. What we are trying to say is this; on many of the river bottoms, many of the ranchers in this country use excessive water and this causes a deterioration of meadows. Many of these meadows revert to sedge-type vegetation due to excessive water. The yields varied from one and one half tons per acre, up to three and one half tons per acre for improved hay. Much of the hay was left standing and pastured. It is estimated that only fifteen percent of the hay lands were harvested and baled.

Due to a dry early fall, the wheat yield was very low. It is estimated that the average yield throughout this Division was less than twenty bushels per

acre. The upland bean crop suffered worse than any other crop. This was due to insufficient ground moisture when the crop was planted; and a dry June, July, and early part of August. When the rains came in September, it was too late to help the beans, and only damaged a poor stand.

The fruit crops in this Division were poor to good. Due to late freezes, very few peaches, cherries, and apricots were harvested. A bumper crop of apples were harvested mainly in Montezuma and La Plata Counties.

Poor returns were realized by ranchers for the grazing of steers this summer. Most of these ranchers paid \$45 cwt. for calves in May and June, and sold them for approximately \$28 per cwt. in November.

Yields on dry land bean crops were below normal. An average of less than 300 pounds per acre was realized.

The general economic condition of this area is depressed.

V. COMPACTS AND COURT STIPULATIONS

We have one compact with other states - that is the La Plata Compact - and one transmountain diversion which in all reality will probably be either an agreement between the states, or a compact. Below is a summary of the contents of the La Plata Compact, and the San Juan-Chama Diversion Project.

BACKGROUND OF THE LA PLATA PROJECT:

The La Plata Compact received its final approval by the President of the United States, signed February 7, 1923. Under this compact, the state of Colorado maintains two river gaging stations; one at Hesperus and the other at the New Mexico-Colorado state line. Besides maintaining these two stations, we are also endowed with the responsibility of maintaining two recorders on ditches that are diverted in New Mexico that have diversion points out of the La Plata River above the State Line station. We also have the responsibility of maintaining two ditch recorder stations above the Hesperus river station.

GENERAL ADMINISTRATION:

The general administration of this water consists of delivering to New Mexico, one half the amount of water that was recorded at Hesperus the day before. This is on a twenty-four hour acre feet basis. We endeavor to carry out the language of the Compact as far as possible. Under the Compact, there is no leniency as far as deviations from the letter are concerned. We have a

few informal agreements with the State Engineer of New Mexico, relative to the administration of this Compact. We try to level off debits and credits by the under or over supplying of water at the State Line every three days. Also, we have an informal agreement wherein, when the flow at Hesperus is reduced to under 25 c.f.s., and better than half of it is lost through evaporation to the State Line, that the State of Colorado take all of the water on the upper river and New Mexico take all the water on the lower river.

In many instances, the water dries up between Hesperus and the State Line. Return flows on the lower river is the water supply that New Mexico takes. The maximum amount of water that has to be delivered to New Mexico at any time is 100 c.f.s.

PROBLEMS:

During early spring, the lower river thaws out earlier than the upper river, and New Mexico receives more total water than Colorado. When spring floods come, considerable difficulty is experienced in maintaining 100 c.f.s. flow at the Colorado-New Mexico State Line, and still take the right amount of water in the Colorado ditches. Problems which cause a variance may be due to the following: debris plugging headgates; diurnal flows due to differences in daily temperatures; side drainages such as Long Hollow and Cherry Creek which flow into the La Plata River below Hesperus.

Also very influential in the allocation of water is that the La Plata River is very much over-appropriated in Colorado. The river is "on call" about three hundred and sixty-five days of the year.

This year, no troubles were experienced in the carrying out of the La Plata Compact - in fact, we only had one call from the State Engineer's Office in Santa Fe relative to our handling of the Compact requirements this year. This was of minor consequence.

BACKGROUND OF THE SAN JUAN-CHAMA DIVERSION:

The San Juan-Chama Diversion, Public Law 87-483, was passed by the 87th Congress, S. 107, on June 13, 1962. This authorized the diversion of a certain amount of water from the San Juan Watershed into the Rio Grande Watershed. This project was completed in October of this year. The first trial run was made on Tuesday, November 17. Below is a brief summary of the contents of this Act.

The State of New Mexico can take from the San Juan Diversion, up to 1,350,000 acre feet of water over any ten-year consecutive period. Such record

will begin the first day of October each year. No more than 270,000 acre feet of water shall be diverred in any one year. "The Secretary of the Interior, shall operate the project so that there shall be no injury, impairment, or depletion of existing or future beneficial uses of water within the State of Colorado, the use of which is within the apportionment made to the State of Colorado by article III of the Upper Colorado River Basin compact, as provided by article IX of the Upper Colorado River Basin compact and article IX of the Rio Grande compact".

This San Juan-Chama diversion is considered as the first stage of development. It is believed that the State of New Mexico has over-appropriated their water under the Upper Colorado River compact, and that if this be the case, no further exploitation of San Juan River water will be made by the State of New Mexico.

Under this Act, the minimum flows are to be in accordance with Section 8, (f): "the Secretary (of the Interior) shall operate the project so that for the preservation of fish and aquatic life the flow of the Navajo River and the flow of the Blanco River shall not be depleted at the project diversion points below the values set forth at page D2-7 of appendix D of the United States Bureau of Reclamation report entitled "San Juan-Chama Project, Colorado-New Mexico", dated November 1955."

There are a number of other sections and subsections relative to the accountability of water and where the water is to be used in New Mexico. Also, there are paragraphs relative to the use of water by Indians and contracts on existing Reclamation projects.

GENERAL ADMINISTRATION:

As this project has not been in operation, we are only setting up the structure to properly administrate this water. We have recently established three new gaging stations; one on the Navajo at Juanita close to the junction of the San Juan and Navajo Rivers; one on the lower Blanco River; and the third station on the Little Navajo near the junction of the Little Navajo with the Navajo River. This will give us good readings of the flow of these streams at their lower reaches. It is our plan to use the G.S. stations at Banded Peaks on the Navajo; Edith on the Navajo; and the Blanco station above the diversion. We have also required the water users to instal new headgates and Parshall Flumes on most of the ditches on the Navajo, Little Navajo, and Blanco Rivers. With

the information secured by these controls and the information secured by the Bureau of Reclamation relative to diverted water, we should start accumulating good records as to the water used and diverted as well as maintaining records of high and low flows in these three streams.

ANTICIPATED PROBLEMS:

1. The control of the diversions from the Navajo, Little Navajo, and Blanco Rivers is to be at Chama, New Mexico. It will not be possible for any Colorado personnel to gain access to any of these stations to check the operation of the Diversion works by the Bureau of Reclamation.

2. During winter months, it will be very difficult to maintain good water records due to freezing conditions at the stations. It may be necessary to winterize all of these stations. The main source of domestic and stock-water comes from either pumping water from the Navajo, Little Navajo and Blanco directly, or from surface flows from ditches diverted from these rivers.

3. The big difference in contention, is where the minimum flows will be taken. The Bureau of Reclamation maintains that the following flows will be measured at the points of diversion; we have a recent letter from the Bureau of Sports Fisheries and Wildlife stating that the minimum flows will be at any point below the Bureau of Reclamation diversions. The Bureau of Reclamation claims that the amount of water passing below the diversions will be the amount specified and no consideration by them will be given the decreed water rights to water users of Colorado - even if the water is dried up below their diversion point. This problem may reach the courts before it is resolved.

VI. DAMS

A.

With very few exceptions, all dams were inspected this year. We have written letters to different dam owners or their representatives, calling attention to needed repairs and maintenance. We do not feel that any of these presents an alarming problem.

We have listed below the dams in each district which are over ten feet in height.

<u>DIST.</u>	<u>NAME</u>	<u>LENGTH IN FEET</u>	<u>HEIGHT IN FEET</u>	<u>CAPACITY IN A.F.</u>	<u>PLANS FILED</u>	<u>INSPECTED</u>
29	G. S. Hatcher	798	46.5	1,734.80	yes	6/11/70
	Echo	284	69.0	2,148.80	yes	6/11/70
	Pargin	1,000	35.5	450.00	yes	6/11/70
	Williams Creek	550	84.0	1,084.00	yes	6/11/70
	Harris Bros. & Boone #2	270	23.0	35.00	yes	11/21/70
	Harris Bros. & Boone #1	418	21.0	48.80	yes	11/21/70
	Dunnagen #1	569	15.0	93.00	yes	11/21/70
	Squaw Canyon	555	29.0	469.90	yes	not built
	Stevens	569	87.0	135.00	yes	6/11/70
	Hersch #1	200	7.0	16.00	no	11/20/70
	Slesinger	300	14.0	26.20	no	5/25/70
	Spence	915	48.0	414.00	yes	5/25/70
	Thomas	750	9.0	55.66	no	11/20/70
	T-Lazy-T	2,600	8.0	2.00	no	11/20/70
	Dunnagen #2	200	10.0	5.00	no	11/20/70
	Linn & Clark	1,200	30.0	426.00	no	11/20/70
	Hersch #2	360	8.0	10.00	no	11/20/70
30	Lemon	1,475	215.0	48,702.00	yes	10/ 4/70
	Highland Mary	210	27.0	15.50	yes	no
	S.J. McCrosky	350	17.0	60.00	yes	not built
	Haviland	580	13.0	340.00	yes	6/12/70
	Hutchinson	320	24.0	11.70	yes	6/12/70
	Little Molas	300	45.0	410.00	yes	6/11/70
	Turner	510	36.0	472.00	yes	6/ 3/70
	Henderson	200	24.0	58.00	no	9/ 4/70
	Keeler	110	45.0	490.00	yes	9/ 4/70
	Cascade	29,040	32.0	23,380.00	yes	9/ 4/70
	Pastoris	1,000	20.0	560.00	no	6/11/70
	Durango	940	30.0	218.10	no	no
Short	250	12.0	40.00	yes	no	
31	Emerald Lake	200	5.0	1,485.00	yes	no
	Wommer	564	37.0	189.69	yes	7/15/70
	Vallecito	4,000	125.0	126,279.00	no	7/15/70
32	Duck Nest	1,860	15.0	139.00	yes	7/16/70
	Cortez	750	37.0	71.40	yes	10/20/70
	Totten	3,005	30.0	3,495.00	yes	10/20/70
	Montezuma Plywood	336	30.0	8.23	yes	10/20/70
33	Red Mesa Ward	355	49.0	4,170.00	yes	10/26/70
	Taylor	845	15.0	85.80	yes	no
	Hesperus	1,082	8.0	---	yes	not built
34	Bauer Lake #1	1,208	30.0	229.50	yes	10/22/70
	L.R. Cox	700	18.0	41.20	yes	*
	Hurst	1,200	22.0	100.00	yes	7/16/70
	Long Pine	1,524	26.0	459.60	yes	10/22/70
	L.A. Bar	712	10.0	72.00	yes	10/22/70
	Wallace #1	550	26.0	54.80	yes	no
	Jackson Lake	1,600	220.0	7,808.00	no	10/22/70
	Narraguinnep	6,653	100.0	19,050.00	yes	10/26/70
	Willis L. Smith #1	308	18.0	32.70	no	10/24/70
	Coppinger #1	640	22.0	39.00	no	10/17/70
	Coppinger	440	16.8	16.20	no	7/16/70
	A.M. Puett	2,000	43.0	2,394.00	no	10/22/70
	Lost Canyon	197	21.0	129.40	yes	10/22/70
	Bauer Lake #2	800	50.0	10.72	no	10/22/70
Summit	9,870	50.0	5,954.40	yes	10/29/70	

<u>DIST.</u>	<u>NAME</u>	<u>LENGTH IN FEET</u>	<u>HEIGHT IN FEET</u>	<u>CAPACITY IN A.F.</u>	<u>PLANS FILED</u>	<u>INSPECTED</u>
34	Weber Reservoir	1,130	25.0	442.00	yes	10/22/70
	Hallett & John Osbin	330	25.0	408.00	yes	not built

*L.R. Cox washed out in 1965 and has not been repaired.

69	Belmear	300	45.0	445.00	yes	7/16/70
	Buck Pasture	500	25.0	53.94	no	7/16/70
	Garner	460	60.0	36.97	no	7/16/70
	Groundhog	1,500	125.0	21,710.80	yes	7/16/70
	Morrison	576	23.0	116.30	no	7/16/70
	Ethel Belmear	500	15.0	87.30	no	7/16/70
	Dunham	400	25.0	60.00	no	7/16/70
North Creek	400	16.0	10.00	no	7/16/70	

B. LIVESTOCK WATER TANKS

B. LIVESTOCK WATER TANKS (Continued)

VII. WATER RIGHTS

A. TABULATION

All the correction cards for this Division were completed in early October. We have also prepared new cards for the October adjudications. The total amount of correction cards completed to date by this office numbers 310. Of this number, we had official protests covering 54 cards. Approximately 22 of these protests were relative to a multiple use of water. This is one point we feel needs clarification in our water laws.

The protest of the twenty-two covered an intended omission on the part of the Division Engineer for not showing all the possible usages of water. This individual had made a dual petition requesting absolute water rights on a certain amount of water; changing the conditional to absolute, and a biennial finding for an enlargement of the system. All of these rights carried multiple use requests. I did not feel that the absolute water should carry all the intended uses, although a large percentage of these uses had been proven up on, but only using a small portion of the water.

We feel that a large portion of the public has accepted the new water law. Since the last election, even our most vehement opponents have pulled in their necks and feel that the water laws are satisfactory if a few minor amendments are made.

To improve public relations, we have appeared on the radio a few times, and also wrote several articles for the newspapers. We also held public meetings both at Mancos for a group of about one hundred and twenty people; and at Cortez where approximately one hundred people attended. We feel that these public relation acts did a lot to establish better understanding with the water users.

Since the tabulation, there has been a steady stream of individuals coming into this office checking on their water rights and we have also assisted them in filing for new rights and making the necessary changes to legalize their old conditional rights. Most people are still confused relative to the tabulation, but we feel that although they are confused, they are no longer afraid that their water rights will be taken away from them.

B. REFEREE'S FINDINGS AND RULINGS AND DECREES

	<u>INVESTIGATED BY DIV. ENGINEER</u>	<u>REFEREE RULING</u>	<u>COURT DECREE</u>
1. Underground Water Rights	4	4	0
2. Change of Water Right	40	25	14
3. Plan for Augmentation	0	0	0
4. Water Right	84	72	36
5. Diligence:- Conditional Made Absolute	113	109	89
Biennial Findings	110	110	101
6. Water Storage Right	<u>9</u>	<u>9</u>	<u>7</u>
TOTALS	366	329	247

There are five cases set for hearing as a result of protests filed by objectors to the applications filed. We do not have one single case where an owner requested an alternate point of diversion from a surface right to a well. We have some augmentation, or alternate points of diversion, pumping water from a stream into a ditch. We also have a large number of wells that are in the process of being adjudicated at the present time.

VIII. ORGANIZATIONS

A. WATER CONSERVATION AND CONSERVANCY DISTRICTS

<u>NAME</u>	<u>ADDRESS</u>	<u>ATTORNEY</u>	<u>OFFICER</u>
La Plata Water Conservation	115 W. 11th. Durango	F. S. Maynes	J. R. Kroeger
Dolores Water Conservancy	115 W. 11th.	F. S. Maynes	I. W. Patterson
Florida Water Conservancy	1157 Main Durango	L. W. McDaniel	Chester Beaton
Mancos Water Conservancy	115 W. 11th.	F. S. Maynes	Lloyd Doerfer
Pine River Irrigation	842 Main Durango	Al Emigh	Frank Wommer, Jr.
San Miguel Water Conservancy	115 W. 11th. Durango	F. S. Maynes	Dan Noble
S.W. Water Conservation	115 W. 11th. Durango	F. S. Maynes	D. L. Williams

B. DITCH COMPANIES

Montezuma Valley Irrigation District
 Hearld G. Keown, Secretary
 Cortez, Colorado

Summit Ditch Company
 Edmond Mc Rae, Secretary
 Dolores, Colorado

Bauer Lakes Water Company
 Mrs. Dwight Wallace, Secretary
 Mancos, Colorado

Park Ditch Company
 Roland Bartel, President
 Pagosa Springs, Colorado

IX. WATER COMMISSIONERS' SUMMARY

	<u>NUMBER</u>	<u>A.F.</u>	<u>DIRECT A.F./A.</u>	<u>DUTY OF WATER STORAGE A.F./A.</u>
WATER DISTRICT 29				
Direct Flow Diversions		102,399	4.21	
Reservoir Storage		3,729		0.87
Acres Irrigation	Direct 24,292			
	Storage 4,230			
Number of Ditches	219			
Number of Reservoirs Served	9			
Average Demand A.F./A.	4.37			
<hr/>				
WATER DISTRICT 30				
Direct Flow Diversions		156,951	3.78	
Reservoir Storage		18,784		0.87
Acres Irrigation	Direct 41,541			
	Storage 21,673			
Number of Ditches	176			
Number of Reservoirs Served	2			
Average Demand A.F./A.	4.23			
<hr/>				
WATER DISTRICT 31				
Direct Flow Diversions		168,907	3.37	
Reservoir Storage		55,426		1.68
Acres Irrigation	Direct 50,128			
	Storage 32,944			
Number of Ditches	70			
Number of Reservoirs Served	2			
Average Demand A.F./A.	4.03			

IX. WATER COMMISSIONERS' SUMMARY (Continued)

	<u>NUMBER</u>	<u>A.F.</u>	<u>DUTY OF WATER DIRECT A.F./A.</u>	<u>STORAGE A.F./A.</u>
WATER DISTRICT 32				
Direct Flow Diversions		28,878	5.64	
Reservoir Storage *				
Acres Irrigation Direct	5,121			
Number of Ditches	50			
Number of Reservoirs Served	1			
Average Demand A.F./A.	5.64			
*Reported in District 34				
<hr/>				
WATER DISTRICT 33				
Direct Flow Diversions		23,042	1.77	
Reservoir Storage		1,092		1.92
Acres Irrigation Direct	13,024			
Storage	566			
Number of Ditches	45			
Number of Reservoirs Served	1			
Average Demand A.F./A.	1.85			
<hr/>				
WATER DISTRICT 34				
Direct Flow Diversions		134,859	2.83	
Reservoir Storage		45,089		1.09
Acres Irrigation Direct	47,660			
Storage	49,371			
Number of Ditches	61			
Number of Reservoirs Served	10			
Average Demand A.F./A.	3.64			
<hr/>				
WATER DISTRICT 46				
Direct Flow Diversions		7,047	3.74	
Reservoir Storage		none		
Acres Irrigation Direct	1,884			
Number of Ditches	21			
Number of Reservoirs Served	none			
Average Demand A.F./A.	3.74			
<hr/>				
WATER DISTRICT 69				
Direct Flow Diversions		6,496	4.68	
Reservoir Storage		160	2.05	
Acres Irrigation Direct	1,387			
Storage				
Number of Ditches	22			
Number of Reservoirs Served	4			
Average Demand A.F./A.	4.80			

TRANSMOUNTAIN DIVERSIONS

FROM WATER DISTRICT 29

TO WATER DISTRICT 20

Name of Diversion:

Diversion in Acre Feet:

Squaw Pass Ditch	108
Piedra Pass Ditch	55
Treasure Pass Ditch	328

FROM WATER DISTRICT 30

TO WATER DISTRICT 68

Name of Diversion:

Diversion in Acre Feet:

Carbon Lake Ditch	277
Red Mountain Ditch	117

FROM WATER DISTRICT 31

TO WATER DISTRICT 20

Name of Diversion:

Diversion in Acre Feet:

Pine River-Weminuche Pass Ditch (Fuchs Ditch)	423
Weminuche Pass Ditch (Raber & Lohr Ditch)	1,060

There are no transmountain diversions in the remaining Districts.

Very good progress continues on the installation of headgates and Parshall Flumes in District 29, in order that we may have better control and accountability of water in connection with the San Juan-Chama Diversion Project. A total of 108 Parshall Flumes, and at least 13 headgates were installed.

We have continued to request installation of flumes on other ditches throughout the Division. We feel that we now have flumes on nearly one hundred percent of the ditches that are needed to keep accurate records on water diversions in the Division.

X. RECOMMENDATIONS AND SUGGESTIONS

We feel that this annual report is well thought out and we have very few suggestions to make relative to adding to or deleting from its contents.

This year has been a very busy one in the Division office. It has been very difficult to keep on top of the ever-changing picture. We feel that we are well over the "hump" as far as administrative problems are concerned. We

have worked very closely with attorneys, water users, legislators, and the judicial, trying to make "81" work.

We were very dubious about working closely with the judiciary in carrying out investigative work with the referee. After working on this for nearly a year, we now feel that this is the way to do it. We feel that the water commissioners and the Division Engineers are more knowledgeable about locations and uses of water, than anyone else in this Division. If we had to work against a referee, in some instances there would be utter confusion.

We feel that the following are problems that should be clarified in legislation: (1) abandonment of water, (2) adjudicating water on a volumetric basis, (3) as authority has been placed on the Division Office, more permanent help be assigned to the Division in the way of water commissioners.

We feel that it will only be a matter of time until the accountability and ownership of all water will be under the office of the Division Engineer. In the meantime, we should take steps toward that end.

APPENDIX A

TEMPERATURE

NOVEMBER, 1969 TO OCTOBER, 1970 (INCLUSIVE)

STATION	1969 NOV.	1969 DEC.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEPT.	OCT.	AVERAGE
Durango Difference	36.3 +0.2	31.4 +3.5	27.3 +2.0	36.2 +6.5	35.0 -1.7	40.6 -4.5	53.5 +1.0	59.6 -1.0	68.7 +1.7	68.5 +2.5	56.0 -3.0	43.6 -4.9	46.4 +0.2
Ft. Lewis Difference	32.5 -0.7	27.4 +1.5	24.3 +1.3	32.5 +6.6	29.5 -2.2	35.1 -6.1	50.3 +1.3	57.3 +0.1	65.2 +1.6	65.2 +3.3	52.2 -3.5	39.2 -6.4	42.6 -0.2
Silverton Difference	25.7 -0.9	22.2 +2.9	16.9 +0.2	23.9 +4.9	21.9 -1.9	27.3 -5.9	45.1 +3.2	50.0 +0.3	55.3 +0.2	55.4 +1.3	41.5 -6.7	35.4 -3.6	35.1 -0.5
Pagosa Springs Difference	32.6 -	27.8 -	22.5 -	32.0 -	30.5 -	36.0 -	48.9 -	55.6 -	64.2 -	64.4 -	48.0 -	40.6 -	41.9 -
Cortez Difference	37.2 -0-	32.9 +3.4	30.2 +2.7	37.3 +5.4	35.8 -2.7	40.5 -6.9	56.5 +0.6	64.8 +0.1	72.9 +1.6	71.9 +2.3	59.1 -3.1	45.9 -5.1	48.8 -0.1

APPENDIX B

PRECIPITATION
 NOVEMBER 1969, TO OCTOBER, 1970 (INCLUSIVE)

STATION	1969 NOV.	1969 DEC.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEPT.	OCT.	AVERAGE
Durango Difference	0.96 -0.02	0.45 -1.18	0.26 -1.35	0.14 -1.16	2.52 +1.03	0.41 -0.88	0.03 -1.10	1.65 +0.80	2.23 +0.42	2.19 -0.17	4.53 +2.80	0.96 -0.02	16.33 -1.71
Ft. Lewis Difference	0.97 -0.02	0.71 -0.89	0.30 -1.34	0.26 -1.45	2.40 +0.86	0.82 -0.66	-0- -1.19	1.56 +0.66	2.08 +0.33	2.03 -0.11	4.83 +3.03	1.16 -0.87	17.12 -1.67
Silverton Difference	1.31 +0.15	0.61 -0.89	0.76 -0.70	0.22 -1.45	2.39 +0.31	1.53 -0.23	0.10 -1.29	2.15 +0.74	3.81 +1.34	4.34 +1.52	7.45 +5.19	1.97 -0.29	26.64 -4.38
Pagosa Springs	1.02	0.53	0.25	0.19	2.86	-0-	0.13	1.64	2.04	2.60	5.68	1.76	18.70
Cortez Difference	0.86 -	0.50 -0.62	0.28 -0.78	0.08 -1.02	1.96 +0.87	0.58 -0.51	0.07 -0.79	0.38 -0.16	0.99 -0.22	1.73 +0.22	1.98 +0.57	0.75 -0.71	10.16 -3.04