FREDERICK W. PADDOCK
IRRIGATION DIVISION ENGINEER
P. O. BOX 15

Annual Report, 1966 Water Year

November 13, 1966

Mr. A. Ralph Owens State Engineer, State of Colorado 232 State Services Building Denver, Colorado

Dear Sir,

Attached hereto is the Annual Report of Irrigation Division 4 for the 1966 Water Year, as required by Colorado law, C.R.S. 148-12-7, 1963.

Respectfully submitted,

Ralph V. Kelling, Jr.
Irrigation Division Engineer



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SUBJECT:

1966 Water Year November 13, 1966



Annual Report

Irrigation Division Number 4

Numerous interesting developments have occurred in Division # 4 during the 1966 Water Year. The snow-pack, although far less than average, was still sufficient to fill nearly all storage reservoirs. No peak run-off developed, and the resulting sustained yield held generally until late July, at which time " cash " farm crops were in effect " made ", in regard to their major water requirement.

The main result of a short water year appears to be in general better crops due to more effective water control and application by the individual irrigator. Due to this circumstance the Gunnison Valley hay crop was very good.

The San Juan drainage was virtually barren of snow-pack by late August, as were the headwaters of all other river systems in Division # 4. Stream run-off depleted wery rapidly as a result. Farm irrigators under the Uncompandere Valley Water Users Association however, and generally those throughout Division # 4, enjoyed a very good water year due to selective conversion of available water from hays to cash crops.

Orchard crops, more susceptible to damage from spring climatic variations, by contrast had only poor to fair production values in 1966. The Palisade- Grand Junction peach area produced only about a 35 % crop due to a late freeze. Bing cherry production in the Paonia

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area was almost nil, yet apple production here and in the Cedaredge area was very good.

Livestock, primarily sheep and cattle, did quite well on summer range, although range conditions were extremely dry in late fall due to very sparce rainfall.

The Association of Water Commissioners and Deputies from Irrigation Division # 4 held their Annual Meeting on May 20, 1966 in Montrose. A picnic was held in Delta City Park on August 14, 1966 in honor of Mr. F. W. Paddock, at which time he was presented a pair of binoculars from the Association.

Several personnel changes have occurred in the Division in 1966. Mr. F. W. Paddock was promoted to the Denver office effective September 1,1966, being replaced by Mr. R. V. Kelling, Jr. Mr. J. A. Sullivan, Water Commissioner in District # 60, retired effective October 31, 1966. The retirement of Mr. C. Drexel is anticipated in February, 1967.

Water District # 28

All reservoirs were filled at the beginning of the irrigation season with the exception of Needle Creek. Many Parshall flumes were installed throughout the Water District, under the supervision and often with the assistance of the Water Commissioner.

Gage rods were installed in Hot Springs, Needle Creek, and Mc Donough Reservoirs # 1 and 2. Rods were marked on three of these reservoirs by personnel from this office. The Vouga Reservoir operated under an exchange agreement this year, and apparently the parties involved have

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been pleased with the results. With the continuing addition of Parshall flumes and reservoir gage rods the Commissioner is able to obtain more and accurate records.

Water District # 40

The Cedaredge pipeline had a good construction year, with many feet of pipe laid and a number of Sparling meters in place at this time. However, problems are anticipated to continue in this district, possibly due to the aggressive attitude of a few of the local water users. Automatic recorders were installed in the Lone Cabin, Turner, and Minnesota ditches to resolve a bad situation there. The results are completely satisfactory and there have been no complaints since. The Beaver Dam Reservoir used 16 cubic yards of grout in an attempt to solve some of their leakage problem. Repairs have been made on numerous other reservoirs, among them the Carl Smith and Kiser reservoirs. The Overland Reservoir Company has completed surveying and drilling in a study of a new dam site location. Numerous inspections have been made, and consequent orders issued for headgates and measuring devices to replace inadequate canal and ditch structures. Several inspection trips to reservoirs on Forest land have been made with Forest Service personnel, in ther anticipation that through this office they will obtain improved land conditions over which we have no jurisdiction.

Water District # 41

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Water District # 41

The City of Montrose continued to have problems with its domestic water supply. Cerro Summit Reservoir was drained and almost 45, 000 cubic yards of silt excavated. Their pipeline developed leaks which continue to be repaired. A winter water supply is anticipated from springs in Cedar Gulch, and water is also available from Tri- County wells drilled this year south of town in the Uncompahgre Valley alluvium. The Gunnison tunnel has been closed for repairs, which requires another additional source of supply for city water for emergencies. The project was down to 60-70 % of demand but apparently no serious effects resulted.

Water Districts 42 and 63

quiet and satisfactory in both districts, each having a fairly good water year. The Kannah Creek drainage was particularly quiet. Numerous reservoirs on Grand Mesa were maintained, and several required restricted storage until repairs are completed. The Fruita reservoirs require gage rods, and leakage and subsidence are apparent on Reservoir # 2. The city has retained an engineering firm to correct these deficiencies. An important problem developed as a result of the Grand Mesa ski area project. Water for this recreation facility has apparently not yet been properly acquired, and water users with early rights, anticipating future development of this area for recreation, summer homes, etc., are justifiably concerned. Controls and regulations are therefore

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hoped to be established early to protest senior rights on an already over-appropriated stream. Several problems developed, hearings were held, and apparently the parties involved have been satisfied.

Water Districts 59 and 62

Reservoir the Uncompangre Valley Water Users Association has enjoyed one of the most even runs of water they have ever had. Project construction continues on Morrow Point. Blue Mesa storage reached about 345,000 acre feet, backing up the river to the Iola bridge. The Bostwick Park Project has been authorized and bids let for initial construction. The City of Gunnison had a waste water problem early in the summer, however the addition of a waste ditch on the west side of town may alleviate some of this condition. Montrose leased some first priority water on the Cimmaron River to supplement the city winter water supply.

Water District # 60

Mr. J. A. Sullivan was ill from January to midAugust, 1966, and consequently water records for this period are nonexistant. Apparently the water year was good here also, although in
late August the natural flow dropped rapidly, and Naturita and the
Colorado Cooperative Ditch Company registered a complaint about this
shortage. However it appears their problem was primarily that of water
quality. All reservoirs filled and crops were very good, which again
attests to better water management in years of short supply. The Lily-

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lands Reservoir apparently has a serious erosion problem on the dam face due to heavy wave action and no rip-rap in place. This structure shall be critically examined in the spring and recommendations for re-habilitation made.

Water District # 61

A study was made, including maps and a geologic report, of the West Paradox Valley area and the problem existing there between decreed surface rights and irrigation wells. On April 22, 1966 a hearing was held in Paradox relative to this problem. The A. S. C. S. office in Norwood has undertaken a study for the enlargement of the Buckeye Reservoir, at this time the cost is reported to be about \$250,000. A private enterprise enlargement may be anticipated. One problem developed with a ditch of early priority, the ditch in question and West Paradox Creek being one and the same for some distance. Our decision appears to injure no one and no complaints have so far materialized.

Water District # 68

The water year in District # 68 was exceptionally good, brought about in part by an early spring and no " peak " runoff. Thus the natural flow held up very well throughout the major part of the irrigation season, although snow-pack was considerably below normal. No serious problems occurred. One should be mentioned as it is anticipated this type of thing will occur more often in the future.

MONTROSE

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A reservoir cavern was "mined" and drilled to tap a live stream, to be used as storage to supply summer homes and cabins which are expected to be built. No injury has yet occurred to the owners of senior water rights. Irrigated crops did very well, in part due to a long growing season and more careful water management on the part of the water user. We anticipate that Mr. Noble will take over the duties of Mr. Sullivan in 1967.

In conclusion, it has been a pleasure to work with the field personnel of Irrigation Division # 4. Without their cooperation and conscientious administration this report would not be possible.

Ralph V. Kelling, Jr.
Irrigation Division Engineer

1966

Annual Tabulation of Water Commissioner Reports for Irrigation Division No. 4 S TATE of COLORADO

Reservoir Report

Total for Division 4	68	Б	ත භ	6-	60	5 9	42	4	\$ 0	2.8	Water District Number
1247	24	4	28	0	73	19	467	6	603	23	No. of Reservoir Decrees in District
232	۳	6	6	1	N	cn	70	4	136	P	No. of Reservoirs Administered
233,463	842	750	4,113	2,459	11,570	106,200	22,778	376	82,515	1860	Amount of Storage on June 15, in Acre Feet
211,395	47	750	10,113	1,223	5,320	88,110	21,416	229	82,527	1660	Irrigation Storage delivered during the season in Acre Feet
3,035	2,190		480					365			11
916,959					20,516	803	895,640				Domestic and Manufacturing Municipal Storage in Acre Power Storage Feet, delivered Acre Feet, Deliv-
116,906	420			760	6,250	68,200	28,699	147	12,230	200	Amount of Holdover storage November 1, in Acre Feet

Annual Tabulation of Water Commissioner Reports Irrigation Division No. 4
State of Colorado
Ditch Report

501,077	906,590	30,416			2,778,771	1360	େଙ୍କ 6129	Division 4
25,647					99,737	140	452	68
1,161		1,224			10,064	26	114	63
23,015		468			411,373	20	460	62
3,347					6,366	12	59	61
10,240			, `		60,000	21	483	60
35,596					223,386	96	661	59
126,576	895,640	28,462			723,733	246	1014	42
93,064	,	365			700,689	72	222	41
153,339	10,950	365	. *		400,613	484	2095	40
29,092					142,810	243	569	2 8
No. of Acres Irrigated in the Water District	Power & Manufacturing Water Run in A cre Feet	Domestic and Municipal Water Run Acre Feet	No: Days Water was Run	Daily Amount of Water run in Second	Irrigation Water Delivered in Acre Feet	No. of Ditches Administered	No. of Ditch Decrees In the Water District	Waţer District Number

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