

ANNUAL REPORT

Water Year November 1, 1964, to October 31, 1965

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Supervising Water Resource Engineer

The recording of plans for construction and repair of dams continued throughout the year as time permitted. This listing of data for all dams on file was nearing completion by the end of the 1965 Water Year.

On June 14, 1965, Mr. Bill Hamilton was employed on a contract basis to look over plans and specifications and to make inspection trips to dams. With Mr. Hamilton's help, greater progress on the recording of dams was made possible. He also made 12 field trips during which he inspected 21 dams.

General heavy rains between June 15th and 17th produced serious flooding over most of Colorado east of the Continental Divide. Nearly all existing reservoirs were filled to capacity and 12 of the dams were damaged. A list of these 12 dams is attached.

During this year, 43 sets of plans and specifications were reviewed and approved. These plans were divided, as follows:

Construction of New Dams	28
Reconstruction of Existing Dams	4
Repairs of Existing Dams	5
Enlargement of Existing Dams	5
Changes in Filed Plans	<u>1</u>
	43

The reservoirs created by the foregoing dams are, as follows:

<u>Use</u>	<u>Number Of Reservoirs</u>	<u>Total Storage In Acre Feet</u>	<u>Total Areas of Reservoir At High Water Line In Acre Feet</u>
Irrigation	20	50,183	2,574
Recreation	9	5,681	555
Flood Control	4	1,797	117
Municipal	6	13,195	566
Industrial	<u>4</u>	<u>12,708</u>	<u>2,561</u>
TOTALS	43	83,564	6,373

A complete history of the plans and specifications by Irrigation Divisions and Water Districts is attached.

Field travel was reduced to a minimum this year partly due to my illness but mainly due to demands of office work.

Several conferences were held with private engineers and representatives of municipalities regarding dam construction and design. The second stage of construction for Stanley Lake Dam was nearly completed by the end of October and is expected to be completed including new riprap by early December. No new work was attempted at Great Western except the installation of a "bypass" line from the pumps to the 16-inch filter feed line. This installation included a discharge valve from the 16-inch line which will allow the reservoir to be drained back into the Church Ditch through the new 16-inch line to be installed as part of the rehabilitation of Great Western Dam.

Not all of the rehabilitation work had been planned for flood damaged dams by the end of the water year. Some dams, Victor and Two Buttes, were repaired by the U.S.B.R.

Neither Upper Blue or Homestake dams were completed this season.

RESERVOIR DAMS INSPECTED DURING 1965 WATER YEAR

<u>Date of Trip</u> <u>1964</u>	<u>Name of Dam</u>	<u>Reason for Trip</u>
November 2	Love Lake	Completion - Complaint that water held back
November 2	Big Meadow	Progress of work - outlet is stripped little fill placed
November 2	Orlando	Met McMath at dam and went over work with him in an attempt to locate possible source of leakage through dam
November 6	Joder	Completion
November 10	Stanley Lake	Slide mass to right of outlet about 16,000 yards slipped when trench excavated
November 13	Cucharas	Work Progress
November 18	Lower Urad	Completion and Acceptance
December 3	Stanley Lake	Installation of new outlet gates. Progress on first stage of fill
December 9	Harris Park No. 2	Acceptance of Completion
December 9	Stanley Lake	Completion of gate installation
December 15	Cabin Creek Project	Location for Parshall flume at lower dam and work progress
December 18	Stanley Lake	Completed outlet gates. New earth slide on down stream face of dam. Construction season closed
<u>1965</u>		
January 8	Flagler	For completion
January 8	Limon Dam	Completion
January 14	Stanley Lake	Condition of work for close out
January 14	Great Western	Routine inspection of progress of repairs

RESERVOIR DAMS FOR 1965 WATER YEAR - Cont'd.

<u>Date of Trip</u> <u>1965</u>	<u>Name of Dam</u>	<u>Reason for Trip</u>
June 30	Agate	Washout of embankment
June 30	Two Buttes	Slough of par apet wall
July 1	Clay Creek	Washout of embankment
July 13	Upper Blue	Inspection of construction
July 14	Homestake	Inspection of construction
July 21	Englewood	Acceptance of construction
August 5	Lower Urad	Acceptance of construction
August 5	Upper Urad	Inspection of construction
August 5	Cabin Creek	Inspection of construction
August 12	Silver Lake	Inspection of construction
August 31	Upper Urad	Inspection of construction
August 31	Cabin Creek	Inspection of construction
September 14	Trout Haven	Slough of embankment
September 14	Burgess	Inspection of construction
September 25	Homestake	Inspection of construction
October 12	Totten	Inspection of construction
October 12	Montezuma Plywood	Acceptance of construction
October 12	Lost Canyon	Acceptance of construction
October 12	Narraguinnep	Seep in left abutment
October 13	Haviland	Slough of embankment
October 27	Skaguay	Slough of embankment

STORAGE DAMS DAMAGED BY FLOODS OF JUNE 1965

<u>Name of Dam</u>	<u>Estimate of Damage</u>	<u>Cause of Damage</u>
Agate	\$ 60,000	Inadequate spillway
Big Sandy S-1	4,000	Inadequate spillway
Clay Creek	58,500	Inadequate spillway
Cripple Creek No. 3	28,100	Inadequate spillway
Flagler	35,000	Inadequate spillway
Franktown-Parker M-1	5,400	Inadequate spillway
Franktown-Parker W-1	24,000	Inadequate spillway
Kiowa Q-51	2,500	Inadequate spillway
Muddy Creek (Setchfield)	200,000	Inadequate spillway
Ramah	45,000	Inadequate spillway
Skaguay	34,000	Inadequate spillway
Two Buttes	<u>58,000</u>	Inadequate spillway
TOTAL	\$554,500	

PLANS AND SPECIFICATIONS REVIEWED AND ACCEPTED DURING
THE 1964-1965 WATER YEAR

<u>File Number</u>	<u>Name of Reservoir Dam</u>	<u>Name of Owner</u>	<u>Reservoir Capacity Ac. Ft.</u>	<u>Reservoir Area Acres</u>	<u>Use</u>	<u>Extent of Work</u>
<u>Irrigation Division No. 1</u>						
<u>Water District No. 1</u>						
C-1148	Seven Reverse Y No. 1	N. A. Magnuson	112.8	31.9	Irrigation	Construction
C-1161	Stark Irrigation	C. H. Stark	20.8	3.5	Irrigation	Enlargement
<u>Water District No. 2</u>						
C-857C	Great Western	Town of Broomfield	6,917	249	Municipal	Rehabilitation
<u>Water District No. 3</u>						
C-1151	Greeley Lake	The City of Greeley	200	20	Municipal	Construction
C-385A	Milton Seaman	The City of Greeley	5,008	180	Municipal	Enlargement and Spillway Repair
C-1079A	Fairway	Gordon Walker and Loren Dilsilver	3	1	Recreation	Spillway Recon- struction
C-1160	Wasson	North Poudre Irrigation Co.	789.1	90.8	Irrigation	Repair
C-1162	Boxelder No. 1	North Poudre Irrigation Co.	39	15	Irrigation	Outlet Replacement
<u>Water District No. 4</u>						
C-1143	Cattail	Marianna Farms Inc.	82.9	20	Irrigation	Relocation
<u>Water District No. 5</u>						
C-1135	Knoth	R. W. Brand	204	32	Irrigation	Enlargement
<u>Water District No. 7</u>						
C-1137	Fall River	Agricultural Ditch & Res. Co.	550	22	Irrigation	Construction
C-1147	Upper Urad	American Metal Climax	700	260	Mining	Construction
C-1147A	Lower Tailing Dam	American Metal Climax	---	---	Mining	Construction

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(Continued)

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<u>Water District No. 8</u>						
C-1130	Tony White No. 1	Tony L. White	25	4.4	Recreation	Enlargement of Stockwater Pond
C-1154	Beers Sisters Lake	Margaret L. Chambers and J. B. Chambers	41.4	7.6	Irrigation	Construction
C-1158	Harvard	City & County of Denver	45	3	Flood Control	Construction
<u>Water District No. 23</u>						
C-1153	Burgess No. 1	James B. Burgess	268.3	28.4	Irrigation	Construction
C-1159	Magnuson No. 1	Magnuson Properties Inc.	58	6	Domestic	Construction
<u>Water District No. 64</u>						
C-1131	Jumbo	Colo. Game, Fish & Parks Commission	2,511	200	Recreation	Construction
C-1139	Younglund No. 1	Walter A. Younglund	39.4	5.6	Irrigation	Construction
<u>Irrigation Division No. 2</u>						
<u>Water District No. 13</u>						
C-1146	Balman	U. S. Forest Service	50.9	36	Recreation	Rehabilitation
<u>Water District No. 14</u>						
C-1132	Peabody Fish Pond	James C. Peabody Jr.	10	2.2	Recreation	Construction
<u>Water District No. 15</u>						
C-1149	Eagle Scout Lake	Rockey Mountain Council B.S.A.	16.5	1.8	Recreation	Construction

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<u>Water District No. 17</u>						
C-1150	Jack Williams	Jack Williams	94.4	16.5	Detention & Stock Water	Construction
C-1155	Dawn	Clyde S. Dawn	60.5	16.9	Irrigation	Construction
<u>Water District No. 49</u>						
C-1129	Ralph Kleweno Detention	Ralph Kleweno	42.6	9.2	Flood Control & Stock Water	Construction
<u>Water District No. 67</u>						
C-1134	Clay Creek	Colo. Game, Fish & Parks Commission	2,898	285.9	Recreation	Construction
C-85A	Two Buttes	Two Buttes Mutual Water Association	40,918	1,798	Irrigation	Repair Flood Damage
<u>Irrigation Division No. 4</u>						
<u>Water District No. 40</u>						
C-1152	Delta No. 3	City of Delta	100	6	Municipal	Construction
C-915A	Kiser	Lewis Armstrong and Clifford Blount	162	10	Irrigation	Repair
C-437A	Carl Smith	Leroux Creek Water Users Association	1,157.5	89	Irrigation	Revision
C-1157	Deep Slough	Surface Cr. Ditch & Resvr. Company	470	50	Irrigation	Repair
<u>Water District No. 42</u>						
C-1140	Indian Wash Det. 1 W-1	Upper Grand Valley Soil Conservation District	1,615.2	88.1	Flood Control	Construction

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	<u>Water District No. 59</u>					
C-983B	Ferris Creek	Thomas R. Ellingwood & Mike B. Clark	1,161.8	60	Irrigation	Enlargement No.1 & Revision No.2
	<u>Water District No. 62</u>					
C-1145	Beaver Lake	U. S. Forest Service	51.4	6.6	Recreation	Construction
	<u>Water District No. 36</u>					
C-1144	Goose Pasture	Blue River Estates Inc.	912	105	Domestic	Construction
	<u>Water District No. 50</u>					
C-1136	Hartman No. 1 & No. 2	G. Marshall Hartman	39.6	6.1	Irrigation	Construction
	<u>Water District No. 53</u>					
C-1156	Sweetwater (Hydro Proj.)	Rocky Mountain Power Co.	12,000	2,300	Industrial	Construction
	<u>Irrigation Division No. 6</u>					
	<u>Water District No. 44</u>					
C-1138	Freeman	Colo. Game, Fish & Parks Commission	115	16.7	Recreation	Construction
	<u>Irrigation Division No. 7</u>					
	<u>Water District No. 29</u>					
C-1142	Spencer	The Bigbee Bros. Cattle Co.	441	32.8	Irrigation	Construction

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<u>Water District No. 32</u>						
C-1128	Totten	Montezuma Valley Irrigation Company	3,495	234.5	Irrigation	Construction
C-1133	Montezuma Plywood	Montezuma Plywood Co.	8.2	1.2	Domestic & Industrial	Construction
<u>Water District No. 34</u>						
C-1141	Lost Canyon Lake	Charles M. Rogers	129.6	19.8	Irrigation	Construction

FLOOD DAMAGE TO FLOOD CONTROL DAMS

<u>File Number</u>	<u>Name of Dam</u>	<u>Water District</u>	<u>Location</u>			<u>Date of Damage</u>	<u>Extent of Damage</u>	<u>Estimated Repair Cost</u>
			<u>Sec.</u>	<u>Twp.</u>	<u>Rge.</u>			
<u>Franktown Parker Water Shed</u>								
C-1014	Willow No. 1	8	16	8S	66W	6/16/65	Topped by 3 ft. downstream face & spillway eroded	\$24,000
C-1023	Mitchel	8	4	8S	66W	6/16/65	Topped by 4" to 6" downstream face & spillway eroded	5,400
<u>Big Sandy Water Shed</u>								
C-992	S-1	67	26	11S	63W	6/16/65	Topped at ends. Damage slight - spillway eroded	4,000
C-1022	Ramah Detention & Recreation	67	15	11S	61W	6/16/65	Dam O.K. Spillway erosion at junction with stream Max. flood 60,700 cfs - spill 12,500 cfs.	45,000
<u>Kiowa Water Shed</u>								
C-767	Q-51	1	23	10S	64W	6/16/65	Spillway erosion	2,500

The emergency spillways on 25 of the dams discharged but only 7 sustained any appreciable damage. Of these 7 only one is damaged sufficiently to warrant repairs.