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BEAR RIVER HYDROMETRIC DATA

TRI-STATE INVESTIGATIONS

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by

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BUREAU OF RECLAMATION

And the States of

IDAHO, UTAH AND WYOMING

And Other Agencies

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\*Individual plates were made for many more canals in the 1949-52 series of reports. In this report records of those same canals appear with their appropriate groups by sections.

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## INTRODUCTION

### Location and Area

Bear River is the largest stream entering Great Salt Lake. It drains an area of more than 6,000 square miles of mountain and valley lands in the northeastern part of the Great Salt Lake Basin. Rising on the north slopes of the Uinta Mountains in Utah, about 60 miles east of Salt Lake City, Bear River flows northward into the southwest corner of Wyoming, turns west and reenters Utah, returns to Wyoming, flows north entering Idaho in the southeast corner, then northwest to a point near Soda Springs, where it turns abruptly southward and traveling in a general southwest direction reenters Utah and finally empties into Great Salt Lake. In this circuitous course of more than 300 miles through the states of Idaho, Utah, and Wyoming, Bear River crosses state lines five times.

### History of the Investigation

In July 1943, the Geological Survey, in cooperation with the Bureau of Reclamation, and the states of Idaho, Utah and Wyoming, began an intensive program of collecting stream, reservoir and canal records in the Bear River Basin. The object of this program is to obtain adequate information on the water supply within the basin and amounts of water diverted for irrigation and other uses, as base data for a compact among the three states in the division of the waters of the river system and to assist the Bureau of Reclamation in determining irrigation and power potentialities in Bear River Basin.

The execution of this program requires the collection of continuous records of stream flow at specific base and Bureau of Reclamation development

gaging stations and the collection of irrigation season records of canals. In 1944 and 1945 records were collected on all canals diverting from the Main Stem of Bear River and its tributaries. In 1946 and 1947 records were collected only on canals diverting from the Main Stem and Smiths Fork, a principal tributary. In 1948 records were collected only on the canals crossing the state line above Evanston, on canals diverting from the Main Stem of the river below the Bear River near Randolph, Utah gaging station, and on canals diverting from Smiths Fork. Patterns of stream flow and diversions were sufficiently defined at the end of 1948 water year to conclude the collection of most diversion records. Only those diversions that were related to either supply or special interstate problems were continued through 1952. Compact studies became more intensified in 1948. It was subsequently concluded that records of diversion from the Main Stem of Bear River and supply records on the westside tributaries in the Woodruff-Randolph area were required for determination of gain and related studies in this reach of the river. Standard gaging stations were installed on canals and creeks in September 1949 to meet this requirement.

Interested agencies were desirous that the publication of the annual Hydrometric Data report be continued. Many records of canal diversions and Main Stem stations collected by the Watermaster of District No. 5, Idaho, and Utah Power & Light Co., are thereby available in one binding at an early date for use in compact negotiations and other water use studies. Attention is called to the fact that the 1949 to 1952 reports contain stream flow records only and are therefore in much less detail than those for 1944-48, 1953, and 1954.

It had been felt for several years that diversion records above Bear Lake during a dry season would be particularly desirable from the following considerations:

1. Under proposed compact allocations the distribution of available supplies during a dry season, with time and magnitude of diversions, define extent of benefit from interstate regulation. The data would be available to more effectively analyze the effects on State Sections being regulated.
2. Natural river gain and/or return flow from water applied in the various sections would more nearly approximate conditions to be expected in a year of extreme regulation under an interstate compact. Proportionate net loss to the system of water diverted would be different than in average years. Its determination makes possible a more accurate analysis of anticipated results of such regulation under a compact.

Snow surveys, streamflow forecasts and subsequent weather patterns indicated that the 1953 water supply would provide answers to most of these questions. To this end records of Main Stem diversions above Border including Smiths Fork, were collected with the expectation of lower supplies than for any year for which records of diversion were previously obtained. Subsequent weather patterns changed the supply picture to about an average of the 1944-48 period.

Drought conditions continued at the approach of the 1954 irrigation season. Snow surveys and streamflow forecasts indicated that supplies would be much lower than 1953, also lower than any year for which records of diversion have been obtained. Therefore records of Main Stem diversions above Border and Smiths Fork were collected. These records furnished valuable information for subsequent studies which were required to complete final compact negotiations.

#### Acknowledgment

Special acknowledgment is given to the Utah Power & Light Company for

records furnished by them and to Russell D. Stoker, Watermaster, District No. 5, Idaho, for furnishing stream and canal records along the Main Stem in Idaho.

#### Annual Trends of Water Supply

Graphs of annual runoff at gaging stations on the Bear River near Evanston, Wyoming, Bear River near Harer, Idaho, and Bear River near Collinston, Utah, are shown on Plates 1, 2 and 3. The latter being more than a 60-year record and the former two more than 30 years. They were chosen as indices of supply because of their length. Each station is affected by upstream diversions. The greatest effect is at the Collinston station, particularly since the lower river has been controlled at Bear Lake. No flow occurs at the Evanston station at times during years of low supply because of upstream diversions.

Most of the present irrigation development in the basin took place prior to 1924. These were years of abnormally high runoff as shown by the Collinston record. This lead to an over appropriation of the waters of the river and is the principal cause of the problems now confronting the water users. The Compact Commission agreed that the 25 years following 1924 (1924-48) would be a representative period for use in Compact studies of supplies and supplemental storage requirements.

Tables on pages 5 and 6 show monthly and annual runoff for the Evanston and Harer gaging stations with computed averages for the 31-year period Oct. 1, 1923 to Sept. 30, 1954.

Monthly and Annual Runoff, in Acre-Feet, of Bear River near Evanston, Wyoming

Water Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1923-24	10,100	-	-	-	-	-	45,400	61,100	22,800	885	44	0	163,000*
1924-25	1,150	-	-	-	-	-	-	-	32,500	11,300	2,640	5,650	131,000*
1925-26	6,580	4,360	-	-	-	16,200	24,600	60,900	30,300	3,220	1,860	434	160,000*
1926-27	1,270	-	-	-	-	-	24,000	51,300	52,500	6,460	1,800	4,560	155,000*
1927-28	6,950	-	-	-	-	-	19,000	101,000	34,900	3,160	414	215	202,000*
1928-29	922	-	-	-	-	15,800	23,200	58,900	64,900	12,100	4,620	7,400	195,000*
1929-30	5,240	4,610	-	-	-	-	26,500	33,900	37,600	1,330	9,100	3,280	140,000*
1930-31	3,970	2,580	2,770	3,070	4,170	19,100	9,580	18,200	12,000	375	264	250	76,300
1931-32	590	1,860	2,150	2,300	2,300	9,720	22,600	57,400	56,400	8,790	603	1,020	166,000
1932-33	1,730	2,790	1,710	1,540	1,940	7,810	13,000	26,700	53,400	1,240	198	5	112,000
1933-34	298	627	2,150	1,540	3,610	5,620	10,730	11,560	238	0	399	13	36,780
1934-35	188	383	984	2,150	3,330	5,030	10,850	21,890	58,300	3,080	321	269	107,400
1935-36	205	547	1,380	1,730	2,070	3,230	34,230	80,870	32,110	9,520	6,000	2,400	174,300
1936-37	2,420	4,220	2,810	1,970	1,470	5,120	37,610	63,450	21,430	10,180	388	483	151,600
1937-38	1,630	1,720	1,850	2,180	2,770	8,890	31,300	53,960	48,090	5,140	940	1,510	160,000
1938-39	3,000	3,410	3,160	3,370	2,950	17,120	19,840	34,690	15,530	2,120	95	414	105,700
1939-40	1,220	1,010	1,180	1,180	2,540	5,970	10,340	42,200	7,810	86	0	789	74,320
1940-41	3,050	2,860	2,000	1,750	2,150	7,590	8,850	42,130	50,880	6,720	2,810	1,460	132,200
1941-42	4,810	4,740	4,320	3,470	3,610	7,310	35,400	44,010	46,220	2,470	57	31	156,400
1942-43	569	1,200	2,180	2,470	3,170	7,820	35,200	44,160	42,070	7,610	1,390	166	148,000
1943-44	2,150	3,160	2,330	2,460	2,480	4,540	27,390	60,730	60,380	12,710	97	82	178,500
1944-45	1,090	2,080	1,630	2,540	2,730	9,080	22,130	41,080	40,380	12,830	8,510	2,230	146,300
1945-46	3,170	4,700	4,670	4,330	3,390	10,160	40,440	44,440	26,270	720	207	116	142,600
1946-47	2,390	5,260	4,840	3,750	3,820	20,830	14,450	63,310	55,760	13,030	2,890	1,510	191,800
1947-48	2,940	4,980	5,250	4,500	4,170	7,060	39,570	63,110	29,160	587	74	15	161,400
1948-49	673	1,450	3,560	3,530	3,050	4,360	30,000	50,250	49,170	8,340	478	342	155,200
1949-50	2,870	3,480	3,360	3,160	3,600	6,750	43,400	69,320	85,970	17,270	2,470	2,050	243,700
1950-51	3,320	6,090	6,500	4,090	4,600	7,690	37,920	53,680	51,610	12,360	6,900	1,960	196,700
1951-52	7,710	5,740	5,710	5,940	5,770	6,160	52,890	108,900	82,140	15,380	6,380	2,520	305,200
1952-53	2,230	2,530	3,740	4,300	3,800	9,760	15,570	23,430	66,930	5,200	1,810	160	139,500
1953-54	289	3,040	3,690	3,690	3,610	7,130	15,520	30,240	8,610	479	19	0	76,320
Average	2,730	2,560	2,380	2,290	2,490	7,610	25,210	48,930	41,190	6,280	2,060	1,330	151,100

\* Aggregate winter estimates made to get annual totals.

Monthly and Annual Runoff, in Acre-feet, of Bear River at Harer, Idaho

Water Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1923-24	42,700	33,100	20,200	17,100	20,300	26,700	130,000	101,000	41,000	13,800	10,100	9,760	466,000
1924-25	13,300	13,000	11,100	12,900	12,800	40,700	48,600	64,600	53,700	37,500	14,300	17,300	340,000
1925-26	21,400	17,800	14,500	11,400	12,600	38,800	44,700	47,200	29,500	16,500	9,900	7,500	272,000
1926-27	11,500	10,800	10,700	10,300	10,600	21,800	51,700	82,400	73,800	34,200	14,500	15,900	348,000
1927-28	19,700	21,100	17,100	16,400	14,000	44,100	47,000	128,000	70,800	23,600	12,900	10,700	425,000
1928-29	12,200	13,600	10,600	10,900	9,830	20,000	61,900	94,100	69,300	32,800	18,100	1,800	395,000
1929-30	22,600	18,900	17,200	9,840	11,900	31,900	51,500	44,600	43,800	19,900	22,300	17,400	312,000
1930-31	19,300	14,100	11,600	11,000	10,700	15,900	17,800	11,800	6,190	5,080	5,720	4,420	134,000
1931-32	6,580	7,020	6,460	6,820	6,960	11,600	32,800	81,800	86,900	41,400	15,000	14,200	318,000
1932-33	14,000	11,440	7,690	9,960	8,500	14,600	22,500	34,300	60,100	18,900	9,650	8,690	220,000
1933-34	10,440	9,720	8,300	8,990	10,390	11,120	5,910	2,810	2,860	2,390	2,220	2,800	77,950
1934-35	4,600	6,590	6,180	5,620	6,250	9,250	15,970	22,980	52,260	15,330	7,070	4,900	157,000
1935-36	7,910	9,930	8,420	6,540	6,390	11,450	60,190	164,100	74,760	25,490	19,530	12,170	406,900
1936-37	14,430	14,520	10,770	9,620	9,010	18,720	76,450	94,390	39,360	27,330	11,990	7,790	334,400
1937-38	10,970	12,810	12,390	11,240	10,750	26,950	65,600	104,900	70,020	27,670	11,940	15,430	380,700
1938-39	17,410	15,970	14,550	12,750	10,450	50,590	51,270	50,620	21,500	11,030	7,330	6,820	270,300
1939-40	11,660	10,560	10,230	9,770	9,890	11,440	9,790	7,900	8,990	5,850	3,620	3,710	103,000
1940-41	8,750	8,270	8,040	7,770	7,930	20,470	16,220	25,880	54,080	22,490	12,600	10,070	202,600
1941-42	12,780	16,510	14,040	10,810	10,070	16,700	81,570	42,540	41,060	13,390	7,500	5,780	272,800
1942-43	8,660	9,810	7,830	7,460	8,410	32,290	90,210	92,500	68,290	34,550	17,800	12,110	389,900
1943-44	13,750	13,890	10,740	10,060	11,100	14,900	78,770	69,770	80,430	30,460	11,350	7,800	353,000
1944-45	11,230	11,150	8,180	8,990	9,530	21,000	25,900	42,030	66,090	36,810	22,490	17,620	281,000
1945-46	14,510	17,880	14,890	14,940	11,480	46,950	111,100	109,000	45,530	19,110	13,540	13,170	432,100
1946-47	14,670	14,500	16,260	11,150	14,190	55,780	45,710	97,280	103,600	40,780	21,400	16,200	451,500
1947-48	16,620	18,250	16,100	13,660	12,520	19,500	68,690	110,200	67,800	21,160	11,220	9,010	384,700
1948-49	12,740	12,450	10,430	10,130	9,630	20,770	49,830	68,540	69,380	28,990	12,670	7,930	313,500
1949-50	16,360	16,700	13,910	14,280	15,060	42,190	93,070	154,300	176,900	59,350	23,300	16,450	641,900
1950-51	20,980	22,240	20,480	15,530	21,010	34,680	112,000	124,600	101,000	38,080	25,240	17,820	553,700
1951-52	22,470	19,560	16,750	17,470	17,370	19,160	76,030	225,300	109,000	42,040	19,500	15,230	599,500
1952-53	16,110	15,680	14,830	17,340	16,790	24,820	31,860	26,800	74,930	26,770	15,350	8,040	289,500
1953-54	9,520	12,910	11,890	12,130	13,120	22,110	28,290	32,260	17,610	12,260	7,950	5,730	185,800
Average	14,830	14,540	12,330	11,380	11,600	25,710	54,920	76,080	61,310	25,320	13,510	11,100	332,600

The following tables show monthly average flows in c.f.s., and precipitation in inches at the Evanston and Harer stations for the 1954 irrigation season and water year, as compared to like periods in the 1924 to 1954 (water year) period of record.

#### BEAR RIVER NEAR EVANSTON, WYOMING

Period	Discharge in c.f.s. (Monthly and Period Averages)					Precipitation *		
	Water Years 1924 to 1954			1954 Percent of Average	1924-54 Average Inches	1954 Inches	1954 Percent of Average	
	Maximum	Minimum	Average					
	Average Disch.	Average Disch.						
April	889	149	424	261	62	1.05	.37	35
May	1,770	188	796	492	62	1.21	.93	77
June	1,445	4	692	145	21	1.04	.85	82
July	281	0	102	7.8	8	0.86	1.10	128
Aug.	148	0	34	.3	1	1.04	.68	65
Sept.	124	0	22	0	0	0.77	.26	34
Apr.-Sept.	739	63	344	151	44	5.98	4.19	70
Water-Year	420	51	209	105	50	11.47	8.21	72

\* Precipitation at Evanston, Wyoming

#### BEAR RIVER AT HARER, IDAHO

Discharge in c.f.s. (Monthly and Period Averages)					1954 Percent of Average	Precipitation **		
Water Years 1924 to 1954				1954 Average Disch.		1924-54 Average Inches	1954 Inches	1954 Percent of Average
Maximum	Minimum	Average	1954					
Average Disch.	Average Disch.							
Period	Average Disch.	Average Disch.	Average Disch.	Average Disch.				
April	2,190	99	923	475	51	1.09	.27	25
May	3,665	46	1,237	525	42	1.23	.74	60
June	2,973	48	1,030	296	29	1.12	1.14	102
July	965	39	412	199	48	0.83	.66	80
Aug.	410	36	220	129	59	0.93	.56	60
Sept.	367	47	187	96	51	0.86	.64	74
Apr.-Sept.	1,442	52	667	287	43	6.03	4.01	67
Water-Year	887	108	459	257	56	12.13	9.27	76

\*\* Mean of precipitation at Evanston, and Border, Wyoming

### Presentation of Data

This presentation includes only data on streams, reservoirs and canals for the water year ending Sept. 30, 1954. The Hydrometric Data reports, 1944 to 1954 and Water Supply Paper 980 contain all data collected during the period of the investigation. Descriptions giving location of gaging stations and other pertinent facts appear in 1946-49 reports only. Location of gaging stations on canals is not given except in a few cases. A complete index of all gaging stations operated in Bear River Basin as of Sept. 30, 1948 appears in the 1948 report. Footnotes to period of record show publication or source where the detailed information may be found. Points of diversion of all canals are shown on the basin map folded in the back of Hydrometric Data reports prior to 1946. The location of gaging stations on all streams are also plotted on the map. The map has not been reproduced for inclusion in reports since 1946.

In general, all principal stream flow stations are equipped with water-stage recorders. A few of the canals are likewise equipped, although the majority of them have only staff gages. The canal gages are located near the points of diversion except in a few cases where some local condition precluded its location there. Staff gages were read three or four times weekly and the records for intervening days of missing gage heights were interpolated or computed on the basis of the observer's notes and records of flow in the feeder stream.

In this report and that for 1953 some sections of the basin vary slightly from previous reports to more nearly conform to Bear River Compact Sections. The table on page 9 shows a summary of monthly diversions in acre-feet grouped by Sections. Graphical presentation of Supply, Diversions and Gain has been shown by Compact Sections above Stewart Dam. Remaining Idaho diversions below Stewart Dam are included in the tabulation of daily discharge. Utah canals diverting at Cutler Dam were included to summarize completely all main stem diversions.

Monthly Diversions in Acre-feet  
Bear River and Smiths Fork Canals

	Month					Total (June-Sept.)
	May	June	July	Aug.	Sept.	
UPPER DIVISION						
Upper Utah (Hovarka Canal)		531	194	70	0	795
Upper Wyoming						
To Hilliard Flat		4,741	4,562	1,399	1,115	11,817
State line to Myers Narrows		6,053	3,148	1,463	1,098	11,762
Myers Narrows to State line near Woodruff		22,614	3,809	288	307	27,018
Total		33,408	11,519	3,150	2,520	50,597
Lower Utah (Woodruff- Randolph)		10,001	3,594	1,936	1,544	17,075
Lower Wyoming (B. O. Dam to Pixley Dam)		4,033	894	264	375	5,566
CENTRAL DIVISION						
Wyoming (Pixley Dam to Border)		9,529	8,108	1,197	2,121	20,955
Bear River Canals		24,158	17,390	12,293	9,199	63,040
Smiths Fork Canals		33,687	25,498	13,490	11,320	83,995
Total						
Idaho (Border to Stewart Dam)		19,665	12,766	7,732	6,724	46,887
LOWER DIVISION						
Idaho						
Stewart Dam to Alexander		1,190	615	298	357	2,460
Alexander to Oneida	20,354	22,681	24,440	14,703	10,227	72,051*
Oneida to Preston		10,038	11,575	10,191	6,923	38,727
Preston to Idaho-Utah		2,590	4,469	4,612	3,160	14,831
State line (Cub River Pumps)						
Total		36,499	41,099	29,804	20,667	128,069
Utah**						(May-Sept.)
West Side Canal	38,270	34,550	39,030	39,240	25,910	177,000
Hammond (East Side) Canal	9,050	8,810	9,680	9,560	6,200	43,300
Total	47,320	43,360	48,710	48,800	32,110	220,300

\*Excludes May

\*\*26 small pumps in Cache Valley diverting about 5,500 acre-feet annually must be added to obtain total diversion.

ABOVE STATE LINE NEAR WOODRUFF

(Upper Wyoming Section of Upper Division)

In former reports two sections were used. One from State line above Evanston to Myers narrows and the other from Myers narrows to Woodruff narrows. Myers narrows is a natural division from the standpoint of potential storage possibilities. (See Bear River Compact Commission reports 18, 19 and 27).

Plates 54, 55 show the record of canals above Myers narrows as for 1953. Plates 56-59, "...Canals from Myers Narrows to State Line near Woodruff," include Francis Lee and Bear River canals in accordance with Compact Sections. Francis Lee and Bear River canals in previous reports were grouped with Utah canals and the plates were titled "from Myers narrows to Woodruff narrows." Plates 56-59 show two totals, one for the group of canals listed and another for all of Wyoming diversions above State line near Woodruff. The latter being the total Upper Wyoming Section diversions in the Upper Division as defined by the Compact. Plate 60 is a hydrograph of Supplies, Diversions and Gain in this Section. No time interval was used in plotting hydrographs for this report. A single hydrograph for this Section conforms to Compact requirements. The large number of diversions required two plates and Myers narrows is the most logical division point. Comparable figures to those of previous years are thereby readily available for diversions above Myers narrows on plates 54 and 55, if desired. Also plotted on plate 60 are 10-day average diversions for the 4-year period (1944-47). The gain hydrograph represents natural gain or loss plus return flow from water applied. Mill Creek, as shown in Supply and Gain computations, is measured above diversions. Therefore, actual Supply to Bear River will be slightly less and actual Gain slightly more than shown.

It is evident from Plate 60 that Gain follows very closely the

diversion pattern in this Section. Except for a single 5-day period, June 15-20, 1954, diversions were considerably below the 4-year (1944-47) average. Gain for the period June 1 to September 30 is equal to 48% of the diversions. This is somewhat low compared to downstream sections and reflects the loss to the system of the water diverted to Hilliard Flat.

STATE LINE NEAR WOODRUFF TO PIXLEY DAM

(Lower Utah Section of Upper Division)

This section comprises that part of the basin in Utah between the State line near Woodruff and State line near Randolph gaging station, excepting land in Utah under the Francis Lee and Bear River Canals, and including land in Wyoming under the B. Q. Westside Canal. About 360 acres are irrigated in Wyoming at the head of the section under the Francis Lee and Bear River Canals and about 1,900 acres are irrigated in Wyoming at the lower end of the section under the B. Q. Westside Canal.

The principal tributaries from which water is diverted for irrigation are: Saleratus Creek, Woodruff Creek, Big Creek, Randolph Creek and Otter Creek. Regular gaging stations are operated on all of these tributaries except Saleratus Creek from which surface inflow to Bear River is negligible. Records of diversions from these tributaries were obtained only during 1944 and 1945 and appear in the Hydrometric Data reports for those years. Supplies are usually either entirely diverted or intercepted by Bear River Canals during the irrigation season, except at times for short periods of snow-melt run-off.

Plates 61, 62 show daily discharge in cubic feet per second of canals diverting from Bear River during the period June 1 to Sept. 30. Plate 63 is a hydrograph showing Supply, Diversions and Gain in this section. Five-day average diversions for the 4-year period, 1944-47, are plotted for comparison with present diversions. The Supply for this section is the flow

passing Bear River near Woodruff gaging station minus Francis Lee and Bear River Canals. The Outflow used in computing Gain is the flow passing the Randolph gaging station.

Two facts are readily evident from this hydrograph, first is the abnormally low supply and second is that the seasonal ratio of gain to total diversion of 105% is relatively high. This ratio reflects the magnitude of natural gain in the section from sources other than return flow from irrigation. The ratio is nearly constant and well defined except for the combination of storm and regulation increase the last week of June. Return flow from irrigation is directly proportional to diversions and 1954 indicates clearly that the water returning to the river from this source is in the minimum range. Total diversions during June and July (principal growing season) were only 24 and 33 percent respectively of the 4-year (1944-47) average diversion.

#### STATE LINE NEAR WOODRUFF TO PIXLEY DAM (CONT.)

##### (Lower Wyoming Section of Upper Division)

This section comprises that land from the Utah-Wyoming line north of Randolph to and including the diversion at Pixley Dam. At present there are two groups of canals in the section; B. Q. Dam canals and Pixley Dam Canal. Land irrigated by diversions at Pixley Dam extends downstream to Sublette Creek.

The principal tributary from which water is diverted for irrigation is Twin Creek. A gaging station is operated on Twin Creek at Sage, Wyoming above approximately 60% of land irrigated from Twin Creek. (See Plate 34). During the irrigation season the entire flow of Twin Creek is generally diverted for irrigation.

Plate 61 and 62 show daily discharge in cubic feet per second of canals diverting from Bear River during the period June 1 to Sept. 30. In addition to the Pixley Canal diverting at Pixley Dam, there is a diversion on the east side made by means of flooding which serves a strip of land about half a mile wide and 3 miles long between Bear River and the railroad. It is impractical to obtain any measurement of flow on this diversion. Dykes prevent surface return to the river.

Plate 64 is a hydrograph showing Supply, Diversions and Gain. The Supply in this Section is the flow passing Bear River near Randolph gaging station for all practical purposes. Outflow from the Section used in computing Gain is the flow passing Bear River below Pixley gaging station. Return flows from the diversions at Pixley Dam are, therefore, excluded from the computed Gain.

The deficient growing season supply is very pronounced in this section; whereas, the supply is near normal after July 5. The 5-year (1944-48) average diversion graph clearly indicates that the canals are usually cut off voluntarily near July 5, to dry the land for cutting hay. June 1 to September 30 diversions in 1954 were only 31% of 1953, and 42% of 5-year (1944-48) average. A natural gain of about 15 cfs has been determined for this section. This base flow natural gain stage occurred about June 25, and only slight improvement was indicated prior to that date because of inadequate supply.

#### PIXLEY DAM TO BORDER

(Wyoming Section of Central Division)

This comprises the irrigated areas along the Main Stem of Bear River from Pixley Dam to Border, Wyoming (State line), also those areas along Smiths Fork and its tributaries.

Plates 65-68 show daily discharge in cubic feet per second of canals diverting from Bear River and Smiths Fork. Measured supply to Smiths Fork basin is shown. Plate 69 shows the daily net inflow in cubic feet per second of Smiths Fork to Bear River. The arrangement on these plates differs from previous reports. Bear River diversions are listed with those for Smiths Fork so that all diversions in the Section are on the same plate. To do this it was necessary to list the daily inflow of Smiths Fork to Bear River on a separate plate. Daily inflow to Bear River is of value in analysis of return flow from water applied in Smiths Fork drainage.

The measured supply as tabulated does not include the small westside tributaries of Smiths Fork, but does include the principal eastside tributary supply, and supplies arising from springs in the lower part of Pine Creek drainage. The net flow of Smiths Fork to Bear River, or outflow, was measured by deducting Bear River above Sublette Creek from the sum of Bear River below Smiths Fork, Garrett Canal (Bear River), and Garrett Spring to Bear River.

Plate 70 shows hydrographs of Supply, Diversions and Gain for the entire section from Pixley Dam to Border including Smiths Fork. Cook Canal was included as a Wyoming diversion in this Section. In 1953 it was treated as an Idaho diversion, also as a supply to the Idaho Section below Border. Return flow from Wyoming land under the Cook Canal would reach Bear River in Idaho below the Border gaging station. It is noted that the total gain follows closely the pattern of diversions and is equal to 67% of the diversions for the period June 1 to Sept. 30. As in 1953 the diversions were somewhat in excess of the 5-year (1944-48) average, amounting to 122% of the latter for the period June 1 to Sept. 30.

BORDER TO STEWART DAM

(Idaho Section of Central Division)

This section comprises land irrigated from Bear River between Border, Wyoming (State line) and Stewart Dam in Idaho, including land under the canals diverting at Stewart Dam and lands served by canals fluming across Rainbow inlet canal.

Thomas Fork is the principal tributary from which water is diverted for irrigation. Thomas Fork usually contributes from 25 to 50 cfs daily to Bear River, following snow-melt run-off.

Plates 71-75 show daily discharge in cubic feet per second of all canals diverting from Bear River in Idaho (to Idaho-Utah State line near Preston) as collected and furnished by Mr. Russell D. Stoker, Watermaster, District No. 5, Idaho. These records of diversion have been furnished annually throughout the investigation by the Watermaster, District No. 5.

Plate 76 is a hydrograph showing Supply, Diversion and Gain for the section between Border to Stewart Dam. For comparative purposes the 5-year (1944-48) average diversions are also plotted (10-day means). During the important part of the irrigation season diversions were only about 63% of the 5-year (1944-48) average. Gains in this section are not too significant as they do not include return flow from West Fork Canal diverting at Stewart Dam, nor return flow from upstream diversions fluming across Rainbow inlet canal.

Canals from Stewart Dam to State line near Preston are in the Lower Division, for which there are no studies nor graphs.

# MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements were made in Bear River Basin during the water year October 1953 to September 1954 as follows:

## MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER

Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
June 18	Birch Creek	Woodruff Creek	NE $\frac{1}{4}$ sec. 24, T. 9 N., R. 5 E., 1 mile upstream from Birch Creek Dam, 1 $\frac{1}{2}$ miles upstream from Allen Creek, and 8 $\frac{1}{2}$ miles southwest of Woodruff, Utah.	3.8
May 7	Kennedy Ditch	Big Creek	NE $\frac{1}{4}$ sec. 11, T. 10 N., R. 6 E., 3 $\frac{1}{2}$ miles southwest of Randolph, Utah	8.4
May 27	. . .do. . . . .	.do. . . . .	.do. . . . .	8.8
July 6	. . .do. . . . .	.do. . . . .	.do. . . . .	4.9
May 7	Big Ditch	Big Creek	NW $\frac{1}{4}$ sec. 1, T. 10 N., R. 6 E., 3 miles southwest of Randolph, Utah.	12.7
May 27	. . .do. . . . .	.do. . . . .	.do. . . . .	12.6
July 6	. . .do. . . . .	.do. . . . .	.do. . . . .	9.5
May 7	Spring Hollow	Randolph Creek	E $\frac{1}{2}$ sec. 28, T. 11 N., R. 6 E., 4 miles west of Randolph Utah.	4.1
May 7	Randolph Creek	Bear River	SW $\frac{1}{4}$ sec. 24, T. 11 N., R. 6 E., 600 ft below Randolph Dam (Randolph Creek) and 2 $\frac{1}{4}$ miles northwest of Ran- dolph, Utah	7.4
May 27	. . .do. . . . .	.do. . . . .	.do. . . . .	5.4
July 6	. . .do. . . . .	.do. . . . .	.do. . . . .	5.3
May 7	Middle Creek	Randolph Creek	SW $\frac{1}{4}$ sec. 24, T. 11 N., R. 6 E., 700 ft below Randolph Dam (Randolph Creek) and 2 $\frac{1}{4}$ miles northwest of Randolph, Utah	4.6
Oct. 28	South Fork Otter Creek	Otter Creek	SW $\frac{1}{4}$ sec. 10, T. 11 N., R. 6 E., 1-3/4 miles upstream from Middle Fork Otter Creek and 4 $\frac{1}{2}$ miles north- west of Randolph, Utah.	4.3
Nov. 17	. . .do. . . . .	.do. . . . .	.do. . . . .	4.6
Dec. 18	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
Feb. 15	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
Mar. 25	. . .do. . . . .	.do. . . . .	.do. . . . .	4.3
Apr. 14	. . .do. . . . .	.do. . . . .	.do. . . . .	4.7
Apr. 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
May 6	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
May 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.3

MISCELLANEOUS DISCHARGE MEASUREMENTS (Cont'd)

MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER

Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
June 17	South Fork Otter Creek	Otter Creek	SW $\frac{1}{4}$ sec. 10, T. 11 N., R. 6 E., 1-3/4 miles upstream from Middle Fork Otter Creek and 4 $\frac{1}{2}$ miles north- west of Randolph, Utah.	4.2
July 13	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
July 28	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
Aug. 26	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
Sept. 27	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
Oct. 28	Middle Fork Otter Creek	Otter Creek	SW $\frac{1}{4}$ sec. 3 T. 11 N., R. 6 E., 1 $\frac{1}{2}$ miles upstream from South Fork Otter Creek and 5 miles northwest of Randolph, Utah	4.6
Nov. 17	. . .do. . . . .	.do. . . . .	.do. . . . .	4.4
Dec. 18	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
Feb. 15	. . .do. . . . .	.do. . . . .	.do. . . . .	4.6
Mar. 25	. . .do. . . . .	.do. . . . .	.do. . . . .	4.5
Apr. 14	. . .do. . . . .	.do. . . . .	.do. . . . .	3.4
Apr. 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.7
May 6	. . .do. . . . .	.do. . . . .	.do. . . . .	4.5
May 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.7
June 17	. . .do. . . . .	.do. . . . .	.do. . . . .	4.4
July 13	. . .do. . . . .	.do. . . . .	.do. . . . .	4.4
July 28	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
Aug. 26	. . .do. . . . .	.do. . . . .	.do. . . . .	3.9
Sept. 27	. . .do. . . . .	.do. . . . .	.do. . . . .	4.3
Oct. 28	North Fork Otter Creek	Otter Creek	NE $\frac{1}{4}$ sec. 3, T. 11 N., R. 6 E., 2 miles upstream from mouth and 5 $\frac{1}{4}$ miles northwest of Randolph, Utah.	4.2
Nov. 17	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
Dec. 18	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
Feb. 15	. . .do. . . . .	.do. . . . .	.do. . . . .	3.6
Mar. 25	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
Apr. 14	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
Apr. 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
May 6	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
May 21	. . .do. . . . .	.do. . . . .	.do. . . . .	4.4
June 17	. . .do. . . . .	.do. . . . .	.do. . . . .	4.0
July 13	. . .do. . . . .	.do. . . . .	.do. . . . .	3.8
July 28	. . .do. . . . .	.do. . . . .	.do. . . . .	4.1
Aug. 26	. . .do. . . . .	.do. . . . .	.do. . . . .	4.2
Sept. 27	. . .do. . . . .	.do. . . . .	.do. . . . .	3.5
July 15	Twin Creek	Bear River	SE $\frac{1}{4}$ sec. 4, T. 21 N., R. 118 W., three-quarters of a mile upstream from Rock Creek at Nuggett, Wyo.	0

MISCELLANEOUS DISCHARGE MEASUREMENTS (Cont'd)

MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER				
Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
June 10	Sucker Springs	Bear River	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 22 N., R. 120 W., 3/4 mile downstream from head and 15.5 miles south of Cokeville, Wyo.	1.0*
June 16	. . .do. . . . .	.do. . . . .	.do. . . . .	2.0*
June 23	. . .do. . . . .	.do. . . . .	.do. . . . .	1.1
July 7	. . .do. . . . .	.do. . . . .	.do. . . . .	1.0*
July 15	. . .do. . . . .	.do. . . . .	.do. . . . .	1.0*
Aug. 10	. . .do. . . . .	.do. . . . .	.do. . . . .	0
Aug. 24	. . .do. . . . .	.do. . . . .	.do. . . . .	0
July 13	Sublette Creek	Bear River	NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 24 N., R. 119 W., at mouth and 3 miles south of Cokeville, Wyo.	2.0*
July 13	Second Spring above Collett Creek Branch Smiths Fork	Bear River	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 24 N., R. 119 W., 1 mile south of Cokeville, Wyo.	10.0
July 13	First Spring above Collett Creek Branch Smiths Fork	Bear River . . . . .	.do. . . . .	8.8
July 13	Collett Creek Branch Smiths Fork	Bear River	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 24 N., R. 119 W., at mouth, 200 ft downstream from R.E. bridge and $\frac{1}{2}$ mile south of Coke- ville, Wyo.	23.3
July 13	Bear River	Great Salt Lake	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 24 N., R. 119 W., at road bridge 3/4 mile southwest of Cokeville, Wyo.	109
July 13	South Branch Smiths Fork	Bear River	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 24 N., R. 119 W., at mouth, 1 $\frac{1}{2}$ miles northwest of Cokeville, Wyo.	4.3
July 13	Smiths Fork	Bear River	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 24 N., R. 119 W., at mouth, 1 $\frac{1}{2}$ miles northwest of Cokeville, Wyo.	16.1
July 13	South Fork Ryan Creek (Branch Smiths Fork)	Bear River	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 N., R. 119 W., at mouth, 1-3/4 miles northwest of Cokeville, Wyo.	7.6
July 13	Ryan Creek (Branch Smiths Fork)	Bear River	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 N., R. 119 W., $\frac{1}{2}$ mile upstream from mouth, 1-3/4 miles northwest of Cokeville, Wyo.	7.7

\*Field estimate

## MISCELLANEOUS DISCHARGE MEASUREMENTS (Cont'd)

## MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER

Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
July 12	Dry Creek	Thomas Fork	SE $\frac{1}{4}$ sec. 3 T. 12 S., R. 46 E., at road bridge 3 miles north of Geneva, Idaho.	2.0*
July 12	Spring Hollow	Thomas Fork	NE $\frac{1}{4}$ sec. 10, T. 12 S., R. 46 E., at road bridge 3 miles north of Geneva, Idaho.	0
July 12	Geneva Canal	Thomas Fork	SW $\frac{1}{4}$ sec. 11, T. 12 S., R. 46 E., 2 $\frac{1}{2}$ miles north of Geneva, Idaho.	0
July 12	Taylor Canal. . . .do. . . . .		NW $\frac{1}{4}$ sec. 14, T. 12 S., R. 46 E., 2 miles north of Geneva, Idaho.	0
July 12	Boehme Canal. . . .do. . . . .		NW $\frac{1}{4}$ sec. 14, T. 12 S., R. 46 E., 2 miles north of Geneva, Idaho.	0
July 12	Blechert Canal. . .do. . . . .		SW $\frac{1}{4}$ sec. 26, T. 12 S., R. 46 E., at road bridge 600 ft downstream from head and 1 mile southeast of Geneva, Idaho.	5.6
July 12	Preuss Creek. . . .do. . . . .		SE $\frac{1}{4}$ sec. 9, T. 12 S., R. 46 E., at road bridge below diversions 2 $\frac{1}{2}$ miles north- west of Geneva, Idaho.	1.0*
July 12	Northside Ditch Preuss Creek		NW $\frac{1}{4}$ sec. 10, T. 12 S., R. 46 E., at road bridge 1000 ft downstream from head and 2 $\frac{1}{2}$ miles northwest of Geneva, Idaho.	0.6*
July 12	Southside Ditch . .do. . . . .		SE $\frac{1}{4}$ sec. 9, T. 12 S., R. 46 E., 800 ft downstream from head and 2 $\frac{1}{2}$ miles north- west of Geneva, Idaho.	1.7
July 12	Circle Canal	Thomas Fork	SE $\frac{1}{4}$ sec. 10, T. 13 S., R. 46 E., at first road bridge downstream from head, 2 $\frac{1}{2}$ miles northeast of Raymond, Idaho.	1.8
July 12	Gardner Canal . . .do. . . . .		SW $\frac{1}{4}$ sec. 16, T. 13 S., R. 46 E., 1600 ft downstream from head, 1-3/4 miles northwest of Raymond, Idaho.	0
July 12	Hart Canal. . . .do. . . . .		SW $\frac{1}{4}$ sec. 27, T. 13 S., R. 46 E., at road bridge 1 mile southwest of Raymond, Idaho.	3.1

\*Field estimate

## MISCELLANEOUS DISCHARGE MEASUREMENTS (Cont'd)

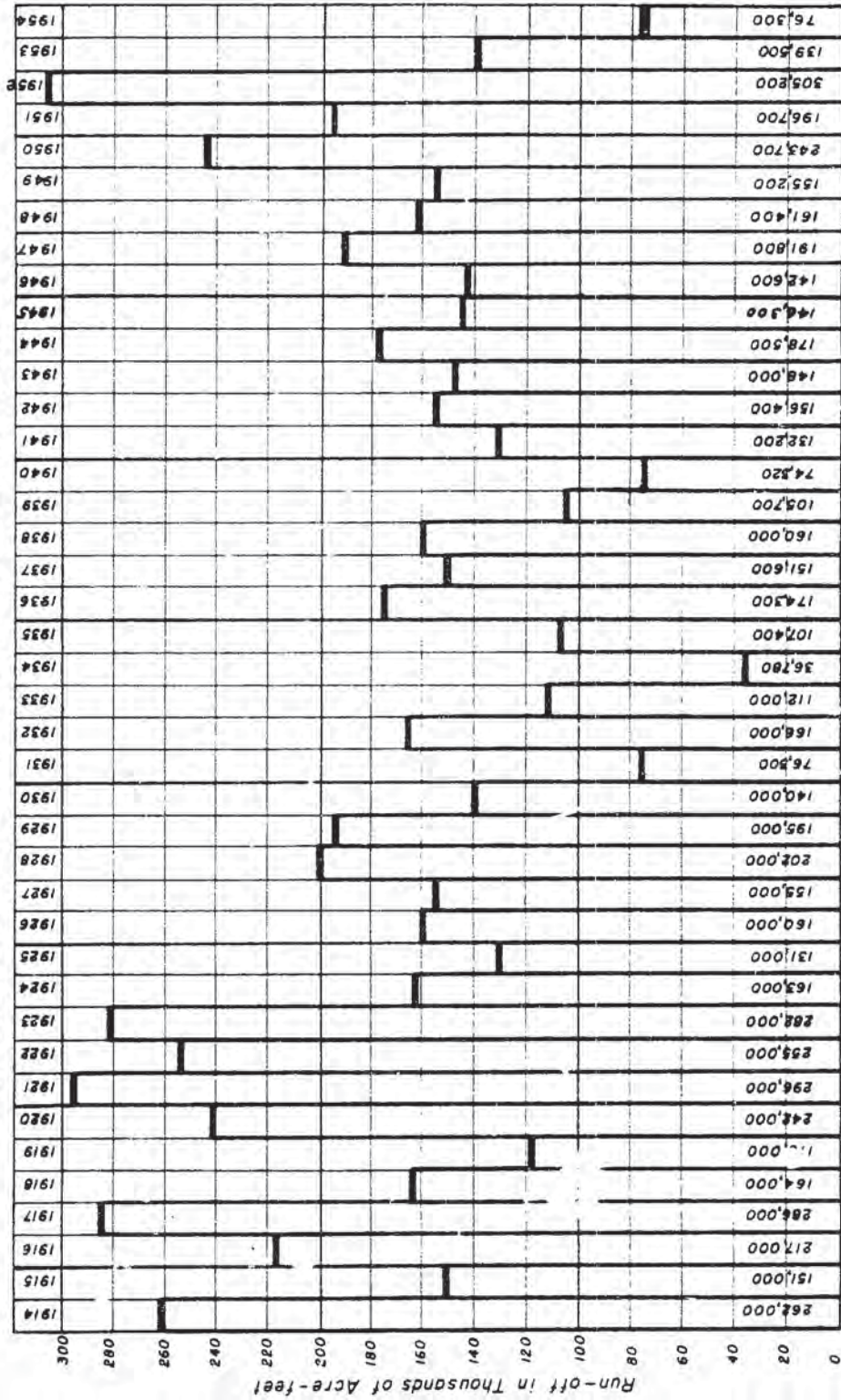
## MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER

Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
July 12	Bagley Canal	Thomas Fork	SW $\frac{1}{4}$ sec. 28, T. 13 S., R. 46 E., at road bridge 1-3/4 miles southwest of Raymond, Idaho.	7.0
July 12	Francis Canal	Raymond Creek	SW $\frac{1}{4}$ sec. 1, T. 26 N., R. 120 W., in Wyo. at 3-way dividing weir, 1 $\frac{1}{4}$ miles southeast of Raymond, Idaho.	0.8
July 12	Etcheverry Canal . . .do. . . . .		SW $\frac{1}{4}$ sec. 1, T. 26 N., R. 120 W., in Wyo. at 3-way dividing weir, 1 $\frac{1}{4}$ miles southeast of Raymond, Idaho.	24.2
July 12	Jensen Bro's. . . .do. . . . . Canal		SW $\frac{1}{4}$ sec. 1, T. 26 N., R. 120 W., in Wyo. at 3-way dividing weir, 1 $\frac{1}{4}$ miles southeast of Raymond, Idaho.	1.8
July 12	Dalton Canal	Thomas Fork	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 14 S., R. 46 E., in Idaho, 50 ft downstream from head and 1 $\frac{1}{2}$ miles northwest of Border, Wyo.	5.1
July 12	Thomas Fork	Bear River	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 14 S., R. 46 E., in Idaho, immediately downstream from Dalton Canal and 1 $\frac{1}{2}$ miles northwest of Border, Wyo.	21.5
July 13	Dingle Irrigation Canal . . . .do. . . . .		SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 14 S., R. 45 E., $\frac{1}{4}$ mile downstream from head and 2 $\frac{1}{4}$ miles southeast of Dingle, Idaho.	31.9
July 13	Ream-Crockett. . . .do. . . . . Canal		NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 14 S., R. 45 E., $\frac{1}{2}$ mile downstream from head and 2 $\frac{1}{4}$ miles southeast of Dingle, Idaho.	45.2
July 13	Black Otter & Peg Leg Canal . . .do. . . . .		NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 14 S., R. 45 E., $\frac{1}{2}$ mile downstream from head and 2 miles east of Dingle, Idaho.	46.7
July 13	Montpelier-. . . .do. . . . . Preston Canal		SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 14 S., R. 45 E., 1 mile downstream from head and 1 $\frac{1}{2}$ miles northeast of Dingle, Idaho.	48.3
July 13	Kent-Lorocco . . . .do. . . . . Canal		NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 14 S., R. 44 E., $\frac{1}{2}$ mile downstream from head and 1 $\frac{1}{2}$ miles northwest of Dingle, Idaho.	16.6

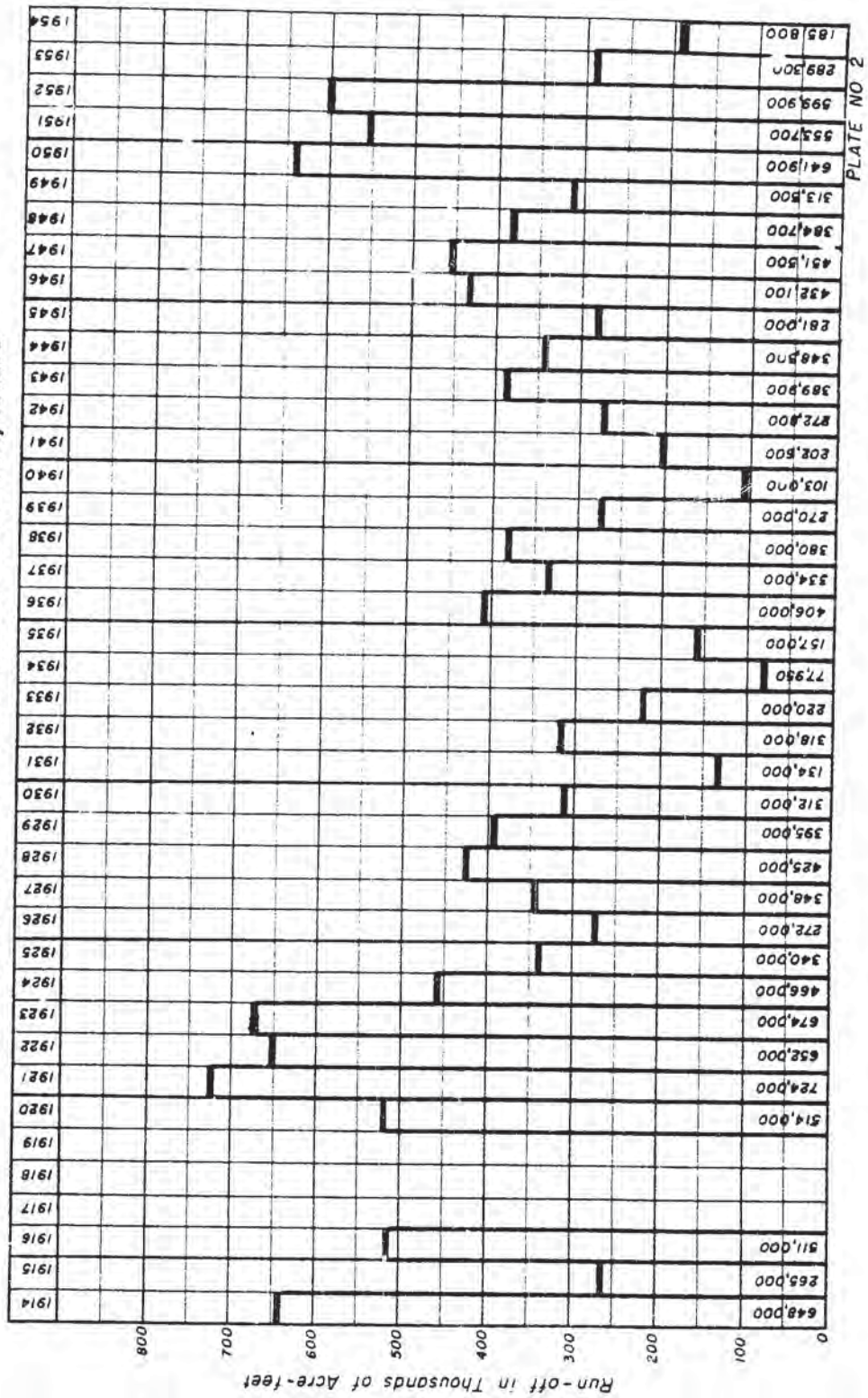
## MISCELLANEOUS DISCHARGE MEASUREMENTS (Cont'd)

MAIN STEM, TRIBUTARIES AND CANALS IN DOWNSTREAM ORDER				
Date	Stream	Tributary to or Diverting from	Locality	Discharge (cfs)
July 23	North Extension of Last Chance Canal	Last Chance Canal	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 9 S., R. 101 41 E., 300 ft downstream from head and 1-3/4 miles northeast of Grace, Idaho	101
July 28	. . .do. . . . .	.do. . . . .	.do. . . . .	84.5
Sept. 30	Logan River	Little Bear River	SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 12 N., R. 101 1 E., 350 ft downstream from State dam and 2 $\frac{1}{2}$ miles east of Logan, Utah.	101
Sept. 30	Logan River. . . . .	.do. . . . .	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 12 N., R. 108 1 E., at cableway, 2000 ft upstream from State dam and 2 $\frac{1}{2}$ miles east of Logan, Utah	108
Aug. 25	Logan, Hyde Park & Smith- field Canal	Logan River	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 12 N., R. 1 E., 1 $\frac{1}{2}$ miles down- stream from head and 2 $\frac{1}{2}$ miles east of Logan, Utah.	24.2
June 30	Hyrum City Power Plant tailrace	Blacksmith Fork	SE $\frac{1}{4}$ sec. 2, T. 10 N., R. 2 E., 100 ft downstream from Power Plant, 1 mile up- stream from Left Fork of Blacksmith Fork and 8 $\frac{1}{2}$ miles east of Hyrum, Utah.	68.8

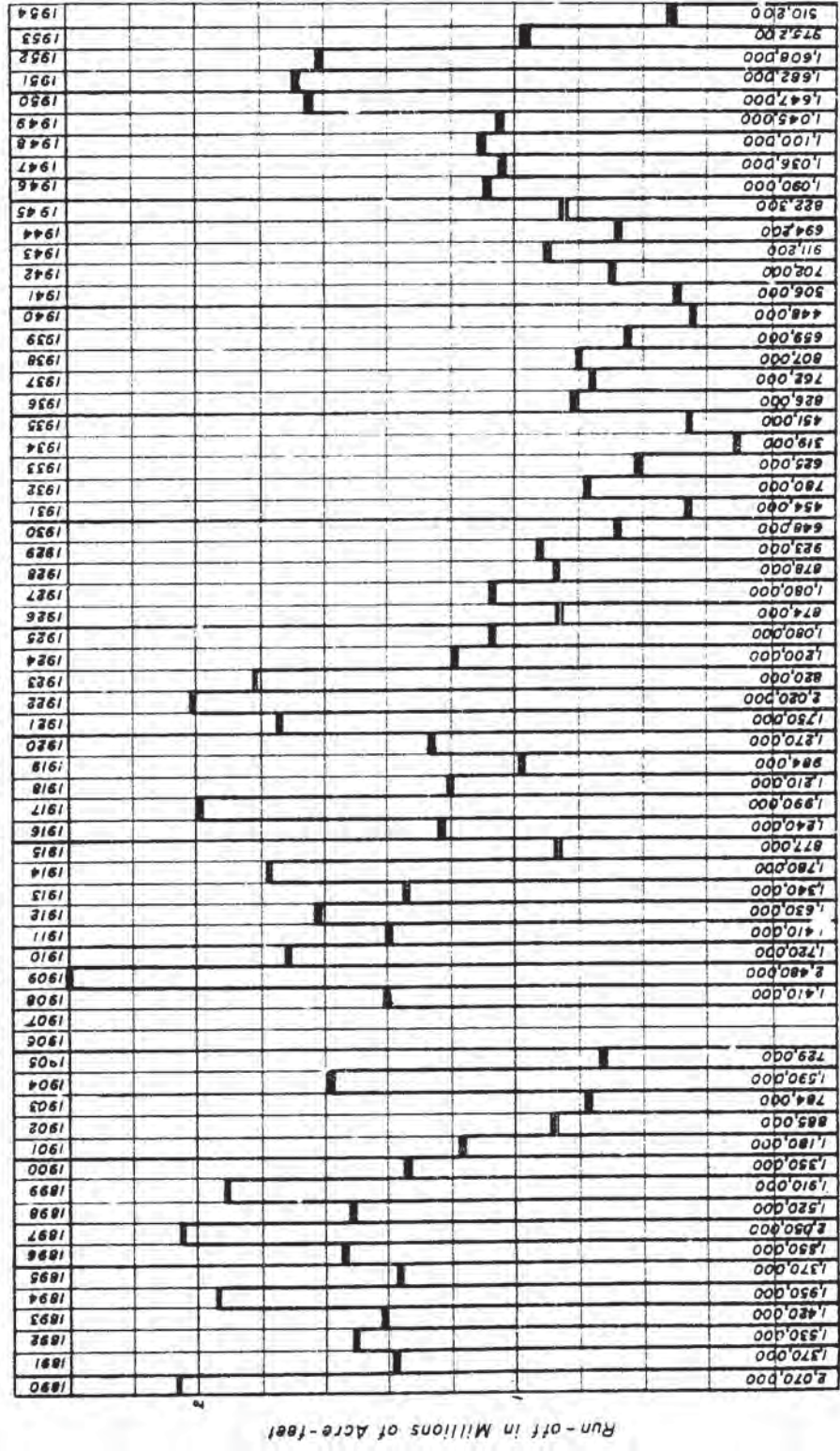
# ANNUAL RUN-OFF OF BEAR RIVER NEAR EVANSTON, WYO.



# ANNUAL RUN-OFF OF BEAR RIVER AT HARER, IDAHO



# ANNUAL RUN-OFF OF BEAR RIVER NEAR COLLINSTON, UTAH (Not Adjusted for Bear Lake Storage and Release)



**Bear River near Utah-Wyoming State Line**

For more information, see page 154

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Avg.	Sept.
1	27	46	40				42	178	282	174	46	26
2	28	48				40	38	155	248	152	42	30
3	28	48					40	155	253	138	42	73
4	30	49			40		44	207	303	141	49	48
5	30	49					53	303	325	167	64	40
6	31	51	38				53	388	272	135	48	36
7	31	44					48	476	234	115	43	34
8	30	44					44	572	207	115	40	37
9	31	43					48	668	203	118	37	40
10	32	44					44	735	186	101	37	37
11	30	46			40		48	720	190	92	38	34
12	30	44					53	766	203	98	49	37
13	32	46	40				58	766	254	135	44	40
14	31	44					80	782	277	121	44	38
15	32	43		38			78	735	238	106	43	34
16	33	37	45				87	675	282	87	37	32
17	31	43					112	682	253	98	34	31
18	30	32	38		40		141	774	253	106	33	30
19	30	30	36				155	814	287	109	32	28
20	32	28					155	856	292	87	33	28
21	36	32				42	159	881	292	82	37	28
22	31	38				45	178	1,000	298	70	36	30
23	37	42				48	203	630	292	62	32	40
24	44	43				36	234	551	287	57	31	46
25	43	44				38	287	565	292	55	30	44
26	38	42	38			38	298	517	292	62	28	46
27	46	42				37	314	406	394	87	27	42
28	48	40				36	314	353	287	62	27	36
29	51	42				37	238	325	234	55	26	33
30	48	42				37	216	325	212	51	26	33
31	46				46			262		48	26	
<b>Total</b>	<b>1,077</b>	<b>1,266</b>	<b>1,208</b>	<b>1,178</b>	<b>1,120</b>	<b>1,258</b>	<b>3,862</b>	<b>17,222</b>	<b>7,902</b>	<b>3,086</b>	<b>1,161</b>	<b>1,111</b>

34.7	42.2	39.0	38	40.6	129	556	263	99.5	37.5	37.0
<b>9,140</b>	<b>2,510</b>	<b>2,400</b>	<b>2,340</b>	<b>2,500</b>	<b>7,660</b>	<b>34,160</b>	<b>15,670</b>	<b>6,120</b>	<b>2,300</b>	<b>2,200</b>

Plate No. 4

114

MISSA

82,220

Daily Discharge, in cubic feet, of

Bear River above Sulphur Creek near Evanston, Wyoming

for the year ending September 30, 1914

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	32	55				70	233	223	136	7.6	6.0
2	8.8	33	55				72	195	213	52	7.6	7.2
3	9.6	36					80	186	177	26	7.2	12
4	9.6	40					103	210	165	19	7.6	16
5	10	43					150	315	177	19	11	8.8
6	10	50					162	410	165	19	12	7.2
7	9.6	45					112	514	150	14	9.6	6.8
8	10	42	48			55	117	603	133	12	8.0	5.6
9	10	50					150	658	117	10	7.6	6.4
10	10	55					139	808	117	9.6	7.2	6.4
11	10	57					144	723	100	8.8	7.6	6.4
12	10	59					162	827	94	14	8.0	6.0
13	10	55					174	762	100	18	16	6.4
14	10	54					207	782	139	19	19	6.8
15	12	52		50	55		159	736	159	16	16	7.2
16	13	48					144	585	183	15	15	7.2
17	14	48	55				162	537	192	13	13	7.2
18	13	45					198	639	150	16	12	7.2
19	14	37					189	664	150	24	13	7.2
20	15	32					192	756	153	22	10	7.6
21	19	35					183	820	144	20	12	8.8
22	20	50				60	204	1,170	128	21	14	8.0
23	21						233	811	177	19	10	10
24	27						243	621	192	17	7.6	15
25	29						315	664	213	15	6.8	19
26	27	60	50				356	627	240	15	6.4	17
27	27						352	514	370	16	6.0	17
28	33						390	430	315	18	6.0	16
29	34					61	290	333	240	15	5.6	14
30	34					61	258	226	213	14	5.6	19
31	34					76		223		11	5.6	

for the year ending September 30, 1954

## Bear River near Evanston, Wyoming

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	16	73				103	264	199	99	1.6	0
2	1.1	14	64				112	239	209	42	1.0	0
3	1.1	20	60				147	209	169	13	.9	0
4	1.0	30				65	204	204	136	7.1	.9	0
5	1.1	32					292	256	116	5.9	.9	0
6	1.1	41					411	333	112	5.6	.8	0
7	1.1	45			65	90	264	394	127	5.6	.7	0
8	1.4	38	55			112	258	471	118	4.8	.6	0
9	1.4	38				120	298	533	101	3.6	.5	0
10	1.1	46				192	286	647	93	3.1	.3	0
11	1.0	54				256	272	628	86	2.8	.2	0
12	1.0	61				187	278	655	71	2.8	.2	0
13	1.1	63				169	289	643	66	2.6	.3	0
14	1.8	56				158	333	624	64	2.1	.2	0
15	2.1	55		60		142	292	592	136	1.8	.2	0
16	2.4	54	65			142	232	478	162	1.6	.1	0
17	3.1	54				147	222	407	248	1.1	0	0
18	3.4	56				118	239	456	174	1.4	0	0
19	3.4	42				114	239	492	127	1.8	0	0
20	5.2	37				114	232	552	101	1.6	0	0
21	4.4	49				112	214	610	86	2.8	0	0
22	5.2	58	60		65	114	216	1,010	68	3.1	0	0
23	4.8	71				108	234	937	73	3.1	0	0
24	6.3	70				105	239	659	84	3.1	0	0
25	8.0	73				101	283	667	142	2.8	0	0
26	8.6	75				99	330	610	142	3.4	0	0
27	11	78	60			99	339	522	301	4.4	0	0
28	12	70				99	364	435	354	3.1	0	0
29	17	70				105	330	342	250	2.4	0	0
30	15	66				108	275	185	176	2.4	0	0
31	17					93		192		1.8	0	0
Year	145.6	1,532	1,862	1,860	1,820	3,594	7,827	15,246	4,341	241.7	9.4	0

Mean	4.70	51.1	60.1	60	65	116	261	492	145	7.80	.30	0
Aug-	289	3,040	3,690	3,690	3,610	7,130	15,520	30,240	8,610	479	19	0
Sept.												

YEAR 105  
MEAN 16,320

Plate No. 6

Daily discharge, in second-feet, of **Bear River near Woodruff, Utah**, for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	15	32			50	80	244	154	98	1.3	
2	.1	15	31			50	80	219	168	39	1.2	
3	.1	15	30			50	90	193	148	25	1.2	
4	.1	14	30			50	140	174	106	19	1.3	
5	.1	13	45			45	171	171	82	16	1.5	
6	.1	15	61			40	268	193	71	15	1.3	
7	.2	16				60	252	248	66	12	1.2	
8	.3	21				80	183	291	61	9.7	1.2	
9	.4	19				90	196	350	60	7.6	1.2	
10	.6	16	60			140	223	408	61	6.1	1.1	
11	.7	17				180	196	492	53	5.0	.9	
12	.7	22				110	196	463	46	5.2	.9	
13	.6	23				80	252	480	40	5.0	.9	
14		25	65		70	80	264	430	37	3.8	.9	
15	1.3	25		65		110	287	430	36	4.1	.7	
16	1.3	23				140	223	377	36	3.3	.6	
17	1.5	23	70			110	193	312	50	3.1	.6	
18	1.7	23				95	190	312	100	3.3	.4	
19	2.2	20				65	206	354	77	4.7	.4	
20	3.3	16				55	202	377	58	6.1	.3	
21	4.1	18				65	193	458	43	4.1	.2	
22	3.1	19				70	177	679	35	3.1	.1	
23	4.4	28				75	186	1,010	29	2.9	0	
24	3.8	34				75	202	718	24	2.4	0	
25	3.3	33				75	212	660	30	2.2	0	
26	3.8	35	65			75	271	615	115	17	0	
27	7.6	34				75	295	540	183	1.7	0	
28	10	40			60	75	295	441	308	1.3	0	
29	12	34				75	324	350	256	1.4	0	
30	13	37				80	264	209	177	1.3	0	
31	15					80		166		1.3	0	
<b>Total</b>	<b>96.7</b>	<b>688</b>	<b>1,849</b>	<b>2,015</b>	<b>1,930</b>	<b>2,500</b>	<b>6,311</b>	<b>12,364</b>	<b>2,710</b>	<b>329.7</b>	<b>19.4</b>	<b>0</b>

Mean	3.12	22.9	59.6	65	69.6	80.6	210	399	90.3	10.6	.63	0
Arithmetic	192	1,360	3,670	4,000	3,870	4,960	12,520	24,520	5,380	654	38	0
<b>Total</b>												

Plate No. 7  
84.5  
61,160  
ACQU-FERT

Daily discharge, in second-feet, of \_\_\_\_\_

**Bear River near Randolph, Utah**

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	34	45	75	90	90	155	47	79	16	7.8	6.4
2	12	35	43				160	41	73	13	7.8	6.7
3	12	36	40				167	36	61	12	7.8	7.0
4	12	37	40				173	32	53	12	8.6	6.7
5	13	40	40	75	90	95	192	30	45	13	10	6.4
6	13	41	50				210	29	42	13	9.8	6.4
7	13	42	218				29	38	12	9.8	6.4	
8	13	41	250				28	37	11	9.8	6.4	
9	16	40	75	80	110	210	236	28	39	10	9.0	6.4
10	18	41					218	28	44	9.8	8.6	6.4
11	18	41					219	29	40	9.8	8.6	6.4
12	19	42					209	28	40	9.8	8.2	6.7
13	19	42	80	80	110	210	164	32	37	9.4	9.4	7.4
14	20	41					129	33	34	9.4	7.8	7.0
15	20	33					158	35	36	9.0	7.0	6.7
16	22	31					169	36	33	9.0	7.0	6.7
17	23	31	80	80	110	210	169	38	30	9.0	6.7	6.7
18	24	29					162	43	37	9.0	7.0	6.7
19	24	27					149	40	38	9.4	7.0	6.4
20	25	25					116	35	26	10	7.4	6.4
21	26	28	75	90	110	210	89	34	23	9.0	7.8	6.4
22	29	35					76	37	21	8.2	8.2	6.4
23	28	44					70	44	20	8.2	7.8	7.4
24	30	42					78	84	19	8.2	7.0	7.0
25	31	51	75	90	110	210	70	139	19	8.2	6.7	7.0
26	33	47					55	118	20	8.6	6.7	6.7
27	33	45					49	115	20	8.6	6.7	6.7
28	34	45					47	110	20	8.6	6.7	6.4
29	34	45	75	90	110	210	46	110	19	8.2	6.7	6.4
30	34	45					164	99	18	8.2	6.4	6.4
31	34	45					167	94	18	7.8	6.4	6.7
32	34	45					164	94	18	7.8	6.4	6.7

694 1,156 2,168 2,465 2,860 5,193 4,251 1,661 1,061 307.4 242.2 159.4

Mean	22.4	38.5	69.9	79.5	102	168	142	53.6	35.4	99.2	7.81	6.65
Acres-Feet	1,380	2,290	4,300	4,890	5,670	10,300	8,430	3,290	2,100	610	480	396

YEAR

MEAN

ACRES-FEET

Plate No. 8

**Daily discharge, in second-feet, of Bear River below Pirley Dam near Cokeville, Wyoming, for the year ending September 30, 1954**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	47	60				200	16	7.4	5.8	6.7	9.4
2	28	47	58				188	16	7.0	5.8	7.0	9.0
3	30	48	55				191	17	6.7	5.8	7.0	8.6
4	29	49	55				200	16	6.7	6.1	7.4	9.0
5	29	51	55				217	16	6.7	5.8	7.4	8.6
6	28	56	60				236	16	6.1	6.1	7.8	8.6
7	28	55					247	14	6.4	6.1	9.0	8.6
8	28	55					258	14	6.4	6.1	9.0	8.6
9	28	55					276	14	6.1	5.8		9.0
10	31	55					260	12	6.1	5.8	13	9.4
11	32	56					249	12	6.1	5.8	25	9.4
12	33	56					24	11	6.1	6.1	20	9.4
13	32	57					227	11	6.1	6.1	18	9.8
14	33	66					169	11	6.4	6.1	17	9.8
15	34	58					134	10	6.4	6.7	16	9.8
16	36	51					87	9.4	6.4	12	14	10
17	36	48					76	12	6.7	14	14	9.8
18	37	48					78	7.8	6.7	11	12	9.8
19	38	41					87	7.8	6.7	13	12	9.8
20	39	38					108	7.4	6.4	12	9.4	9.8
21	39	40					103	6.7	6.7	11	7.8	9.8
22	42	45					78	6.7	6.7	11	7.8	9.4
23	40	51					75	5.5	6.1	11	7.8	9.0
24	42	56					74	5.8	5.2	10	7.4	8.6
25	45	58					71	5.5	5.8	9.8	7.8	8.6
26	45	59					71	6.1	6.1	9.4	7.8	8.6
27	46	60					38	6.4	6.4	7.8	7.8	8.2
28	47	60					28	6.4	7.8	6.7	7.8	8.2
29	47	60					28	7.0	6.7	6.7	9.6	49
30	47	60					12	7.4	6.4	6.7	10	38
31	47							7.8		6.7	9.8	

1,124 1,586 2,378 2,620 3,085 5,859 4,315 320.8 193.5 251.8 335.3 343.6

Mean	36.3	52.9	76.7	84.5	110	189	144	10.3	6.45	8.12	10.8	11.5
Acres-Feet	4,230	3,150	4,720	5,200	6,120	11,620	8,560	636	384	499	665	682

YEAR MEAN AREA-Feet Plate No. 9  
614 44,470

Daily discharge, in second-feet, of

Bear River above Sublette Creek near Cokeville, Wyoming

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	52	65				215	35	18	22	17	18
2	31	52					210	38	18	16	17	19
3	33	52					216	39	18	14	17	19
4	33	55				105	220	39	20	14	18	20
5	32	60			95		235	38	23	13	19	19
6	32	62					250	37	26	16	17	19
7	32	62					262	35	30	14	18	19
8	32	62		80		105	264	34	33	18	19	18
9	31	62				110	288	34	34	23	19	17
10	33	62	80			200	274	33	34	24	27	17
11	34	62					260	34	34	27	30	17
12	35	62				250	255	32	34	29	28	17
13	37	62					245	31	34	28	26	18
14	38	73					209	31	33	27	24	18
15	40	65	85		120		144	33	33	25	22	18
16	40	58					124	33	33	27	21	18
17	40	53					96	35	33	30	20	18
18	41	55	85			250	90	32	31	30	20	17
19	42	53		85			94	29	30	32	19	17
20	44	45					110	29	30	30	19	17
21	45	47					116	27	28	27	17	17
22	45	50					94	24	26	26	16	17
23	47	52			110		85	22	25	26	16	17
24	50	55					83	21	21	26	15	19
25	51	55	80				83	18	19	27	14	19
26	51	58		90		240	83	18	22	23	13	19
27	51	65				230	76	18	24	24	13	19
28	52	65				220	34	18	30	21	13	19
29	52	65		95		210	52	18	27	21	16	19
30	52	65				200	34	18	24	21	21	62
31	52					230	34	18	24	21	21	
32	52					220		18		19	20	

1,259 1,746 2,400 2,615 2,975 6,255 4,801 901 825 720 591 587

Mean discharge in cfs	40.6	58.2	77.4	84.4	106	202	160	29.1	27.5	23.2	19.1	19.6
Total discharge in cfs	2,500	3,460	4,760	5,190	5,980	12,410	9,520	1,790	1,640	1,430	1,170	1,160

U. S. GOVERNMENT PRINTING OFFICE: 1954

Year 1954

Mean

70.3

Plate No. 10

Average discharge

50.930

Daily discharge, in second-feet, of Bear River below Smit's Fork near Cokeville, Wyoming, for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								377	284	246	104	85
2								345	263	232	104	88
3								333	242	219	104	88
4								337	229	216	104	88
5								377	232	209	106	90
6								435	246	197	104	92
7								475	266	186	102	88
8								508	256	180	102	85
9								530	249	177	104	79
10								565	263	174	100	77
11								625	263	180	108	75
12								625	260	183	108	79
13								601	249	177	102	80
14								583	238	169	97	79
15								559	229	169	90	74
16								571	225	166	87	74
17								571	225	158	85	75
18								607	222	166	85	77
19								565	219	180	83	77
20								535	213	180	83	77
21								535	216	171	85	77
22								607	229	166	83	75
23								595	235	152	83	79
24								513	252	150	82	79
25								450	280	140	77	77
26								435	270	130	74	72
27								412	294	128	74	71
28								385	325	121	71	71
29								361	291	112	72	71
30							408	341	270	110	80	99
31								321		106	83	
								15,079	7,535	5,250	2,826	2,398

Mean Acre- Feet												
								486	251	169	91.2	79.9
								29,910	14,950	10,410	5,610	4,760

U. S. GEOLOGICAL SURVEY WATER RESOURCES DIVISION

YEAR  
1954MEAN  
ACRE FEET216  
65,640

Plate No. 11

Daily discharge, in second-feet, of

**Bear River at Border, Wyoming**

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	112	165	199	170	220	290	342	419	259	234	97	92
2	110	165	184			270	339	370	236	212	100	95
3	110	163	160			280	344	339	210	189	103	91
4	108	163	140			280	342	342	199	180	107	75
5	111	170	140	190	210	240	367	370	201	173	123	74
6	111	191	240			422	433	206	175	123	74	
7	105	191	240			430	476	226	182	123	70	
8	101	186	220			426	504	236	177	123	67	
9	100	184	190	190	225	250	451	526	226	161	122	66
10	107	182				280	458	542	236	155	116	65
11	114	184				310	430	593	239	155	129	67
12	116	184				350	422	608	228	160	124	70
13	116	184	175	185	225	310	436	589	224	156	116	68
14	111	186				290	405	556	220	150	105	70
15	110	191				330	358	497	218	145	108	70
16	112	182				400	326	494	228	134	101	70
17	116	179	195	190	225	420	298	472	228	128	103	71
18	117	175				420	307	490	220	124	103	71
19	116	170				420	324	447	214	131	100	74
20	118	160				396	326	422	210	136	91	76
21	122	150	200	185	240	399	339	412	199	134	93	80
22	120	150				386	344	447	180	128	92	82
23	120	190				386	344	465	177	123	92	84
24	139	190				379	376	416	184	117	92	84
25	163	182	165	175	280	370	416	370	206	114	91	83
26	166	188				361	444	352	210	112	92	82
27	170	197				355	469	329	236	120	92	80
28	170	204				342	454	324	284	114	93	81
29	168	202	165	175	280	334	479	314	275	108	90	80
30	168	199				334	458	298	254	100	91	80
31	165					336		288		97	93	
3	892	5,407	5,613	5,650	6,365	10,197	11,676	13,511	6,669	4,524	3,228	2,292

MEAN	126	180	181	182	227	329	389	436	222	146	104	76.4
AGGREGATE	7,720	10,720	11,130	11,210	12,620	20,230	23,160	26,800	13,230	8,970	6,400	4,550
PERCENT												

U. S. GOVERNMENT PRINTING OFFICE: 1954

YEAR 217

MEAN

AGGREGATE

PERCENT

Plate No. 12

for the year ending September 30, 1954

## Bear River at Harer, Idaho

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	202	210	190	230	270	401	557	394	309	145	106
2	133	202	195	190	230	250	397	511	355	281	145	110
3	133	207	160	190	230	240	405	1,60	309	261	147	117
4	137	197	165	190	230	219	394	435	272	244	145	114
5	137	199	180	190	220	220	420	435	269	238	147	104
6	141	218	200	195	220	220	476	472	281	236	161	97
7	143	226	200	200	220	220	511	529	296	238	154	96
8	139	223	195	200	220	220	524	566	309	233	154	92
9	137	229	195	200	220	250	529	571	299	228	150	89
10	135	226	190	200	220	280	562	594	305	217	150	87
11	141	226	180	190	220	320	543	620	305	204	147	87
12	147	229	185	195	220	350	529	659	299	202	156	94
13	147	229	195	200	220	310	524	663	290	202	150	92
14	147	226	205	200	220	290	529	663	287	196	135	87
15	143	235	215	200	230	340	484	602	266	192	125	87
16	143	229	210	205	235	410	428	571	305	182	125	85
17	143	226	200	210	235	440	405	533	338	172	117	84
18	150	221	200	210	235	450	379	515	321	167	117	82
19	152	215	215	210	235	470	409	502	302	167	115	87
20	152	205	220	209	235	490	412	480	290	167	112	89
21	150	167	220	200	250	490	424	511	275	167	108	90
22	152	190	215	200	250	480	431	571	249	165	108	94
23	152	225	205	200	250	481	420	576	230	165	106	97
24	158	220	190	195	250	468	455	580	236	161	108	102
25	177	220	170	195	250	480	480	502	249	161	104	102
26	194	215	165	190	280	450	520	468	272	158	106	104
27	197	220	170	190	280	435	562	443	272	179	110	102
28	197	225	180	190	280	424	562	420	321	189	123	102
29	199	230	185	190	280	401	566	428	351	182	123	104
30	199	225	190	190	280	390	580	420	331	165	108	104
31	197		190	200		387		405		154	106	
	4,800	6,507	5,995	6,114	6,615	11,145	11,261	16,242	8,878	6,182	4,007	2,837

Mean Annual Flow	155	217	193	197	236	360	475	525	296	199	139	96.2
Sum	9,550	12,010	11,890	12,130	13,120	22,110	28,290	32,260	17,610	12,260	7,950	5,730

Max. Disch. 680 cfs May 14, 1954

Year

XXXX

Mean  
Annual  
Flow257  
185,800

Plate No. 13

for the year ending September 30, 1954

**Bear River below Stewart Dam near Montpelier, Idaho**

Daily discharge, in second-feet, of

No.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	16	16	16	16	23	8	19	12	14	6
2	12	15	15	16	16	15	23	9	19	12	14	6
3	12	15	15	16	17	18	22	9	18	12	16	6
4	13	14	15	16	17	20	22	8	13	12	15	7
5	14	14	15	16	16	22	22	8	7	12	14	7
6	14	14	15	16	17	22	22	8	6	11	16	7
7	14	14	15	16	17	22	14	8	7	14	17	7
8	13	14	15	16	17	22	9	8	7	11	18	7
9	13	14	15	16	17	22	9	8	7	11	18	6
10	14	14	15	16	17	23	9	10	7	11	17	6
11	14	14	15	16	16	23	9	16	7	11	16	7
12	14	14	15	16	16	24	9	16	8	12	16	7
13	15	14	15	16	16	25	9	16	7	11	15	7
14	15	13	15	16	17	25	8	15	8	11	16	6
15	14	14	15	16	17	26	8	16	8	11	15	6
16	15	14	15	16	17	26	8	17	8	12	16	6
17	15	14	15	16	16	25	8	16	8	13	16	6
18	14	15	15	16	18	24	8	16	8	13	16	6
19	14	15	16	16	19	22	7	18	9	13	14	6
20	14	15	16	16	18	21	8	18	9	13	14	6
21	15	15	16	16	19	22	9	18	9	13	12	5
22	14	14	16	16	16	21	9	18	9	13	11	5
23	14	14	16	16	14	21	10	19	9	13	7	6
24	14	14	16	16	14	20	9	18	8	13	4	6
25	14	14	16	16	13	20	8	17	8	13	4	6
26	14	14	16	16	19	19	8	17	8	13	4	7
27	14	15	16	16	14	17	8	17	9	13	4	7
28	14	15	16	16	15	27	8	17	9	13	4	7
29	14	16	16	16	16	27	8	18	11	14	5	8
30	15	16	16	16	16	25	8	18	12	15	6	8
31	15	16	16	16	16	23	19	19	12	15	6	8
	432	432	479	496	461	696	342	445	281	386	380	193

MEAN	13.9	14.4	15.5	16.0	16.5	22.5	11.4	14.4	9.4	12.5	12.3	6.4
AGGREGATE	857	857	950	984	914	1,380	678	883	557	766	754	383

Max. Disch. 31 cfs Nov. 17

YEAR TO DATE  
MEAN  
13.8  
AGGREGATE  
9,960

Plate No. 14

Daily discharge, in second-feet, of

## Bear River at Pescadero, Idaho

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	63	109	75	90	95	150	97	701	1,130	839	867
2	70	66	107	75	90	95	141	96	879	1,150	839	879
3	64	66	100	75	90	95	145	96	896	1,150	856	890
4	62	67	95	75	90	92	183	99	752	1,150	850	896
5	61	67	95	75	90	90	231	105	675	1,150	811	902
6	61	69	95	75	90	95	250	102	811	1,160	706	896
7	64	72	95	75	90	105	258	133	879	1,250	731	908
8	67	74	90	75	85	133	252	110	884	1,300	752	908
9	69	73	90	75	85	160	247	133	647	1,370	757	902
10	67	86	90	75	85	229	237	121	546	1,330	839	902
11	64	83	90	75	85	215	214	433	436	1,300	856	806
12	63	79	90	75	90	195	189	593	244	1,250	914	576
13	66	78	90	75	100	160	168	610	160	1,210	920	477
14	67	74	90	80	100	175	172	670	162	1,250	806	436
15	70	75	90	80	95	180	170	717	522	1,270	789	288
16	73	75	90	80	90	200	170	822	642	1,230	789	319
17	57	75	90	80	90	210	178	822	652	1,200	873	365
18	60	70	90	80	90	200	174	884	571	1,230	908	340
19	62	70	90	79	95	200	181	1,090	550	1,210	908	305
20	61	90	90	75	95	200	211	1,110	546	1,240	908	288
21	61	95	85	80	95	170	187	1,150	542	1,310	974	258
22	61	95	80	80	95	175	162	1,160	731	1,110	1,000	247
23	61	97	75	80	100	185	152	950	833	1,040	1,000	244
24	60	101	75	80	100	189	150	940	739	968	914	134
25	61	101	75	80	100	189	126	1,150	872	938	862	74
26	61	101	75	80	100	175	119	1,090	950	938	856	66
27	61	109	75	80	100	170	116	874	1,050	926	844	66
28	60	117	75	85	95	170	102	661	1,060	839	844	66
29	61	112	75	85	95	165	97	624	1,050	704	850	64
30	60	111	75	90	90	160	95	550	1,060	642	862	62
31	62	75	75	90	90	145	512	512	806	806	867	
2,016 2,511 2,706 2,439 2,600 5,017 5,227 18,623 21,143 34,881 26,524 14,431												

Max.	65.0	83.7	87.3	78.7	92.9	162	174	601	705	1,125	856	481
Min.	4,000	4,980	5,370	4,840	5,160	9,950	10,370	36,940	41,940	69,190	52,610	28,620

Max. discharge, 1,400 cfs July 8

Year

1954

Month

March

378

Amount

274,000

Plate No. 15

## Bear River at Soda Springs, Idaho

for the year ending September 30, 1954

Daily discharge, in cfs, and ft., ft.

Days	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	140	190	135	165	160	259	246	743	1,120	856	890
2	165	140	190	135	165	160	239	249	890	1,160	862	911
3	120	140	160	130	160	155	256	232	1,000	1,170	883	925
4	100	138	165	130	160	150	215	222	897	1,170	883	925
5	100	143	158	130	155	150	426	229	762	1,170	869	932
6	115	151	165	135	155	150	508	239	828	1,170	795	925
7	125	149	160	140	155	160	473	246	940	1,220	749	925
8	140	147	155	140	150	176	454	281	990	1,370	788	925
9	150	147	160	140	150	256	435	281	883	1,400	728	925
10	150	147	165	140	150	368	390	277	724	1,360	828	925
11	150	160	160	135	150	315	377	315	622	1,310	869	876
12	150	160	155	140	160	300	356	695	459	1,270	904	705
13	155	158	155	140	180	260	335	730	292	1,220	940	533
14	155	156	160	145	180	300	323	756	246	1,240	883	468
15	155	151	160	145	170	310	324	808	351	1,280	808	408
16	155	151	165	145	160	340	377	890	705	1,260	815	296
17	155	156	170	145	155	356	311	890	730	1,210	849	381
18	155	156	170	145	155	323	323	904	699	1,200	911	377
19	150	121	165	145	160	340	315	1,020	622	1,250	918	347
20	150	158	165	140	160	300	327	1,140	616	1,250	918	319
21	150	185	155	145	160	280	335	1,240	593	1,230	961	307
22	150	190	140	150	165	292	311	1,240	693	1,160	1,010	277
23	150	190	130	150	170	288	292	1,080	869	1,080	1,020	292
24	150	187	125	150	175	296	288	1,030	897	1,010	961	263
25	150	185	125	145	170	284	288	1,190	911	961	883	151
26	150	192	125	150	170	270	266	1,210	968	961	876	114
27	145	198	130	150	170	277	281	956	1,050	961	869	109
28	145	200	130	160	160	263	270	737	1,110	904	862	107
29	140	192	135	160	—	263	270	705	1,100	842	876	106
30	140	190	135	165	—	256	256	705	1,080	718	883	109
31	140	140	135	165	—	226	—	633	743	—	843	—
Total	4,555	4,828	4,758	4,170	4,535	8,024	9,912	21,685	23,300	35,400	27,200	15,753

Mean	147	163	153	144	162	259	330	700	777	1,142	977	535
Annual	9,030	9,680	9,440	8,870	9,000	15,920	19,660	43,010	46,210	70,710	53,950	31,250

Year 1954

Mean 451

Actual 326,000

Plate No. 16

## contents acre

Date/Time, if known, of

## Soda Reservoir near Alexander, Idaho

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,030	11,690	11,710	11,590	11,600	11,580	10,600	11,080	11,640	9,870	11,600	9,970
2	11,060	11,660	11,600	11,520	11,600	11,560	10,980	11,190	11,770	9,800	11,500	9,840
3	11,000	11,640	11,590	11,660	11,640	11,580	11,460	10,870	11,600	9,800	11,480	9,650
4	10,870	11,660	11,540	11,600	11,610	11,600	11,750	10,310	11,450	10,010	11,620	9,480
5	10,740	11,640	11,600	11,610	11,610	11,590	11,750	10,170	11,470	10,090	11,540	9,620
6	10,720	11,670	11,580	11,660	11,590	11,620	11,690	10,330	11,610	9,940	11,590	9,810
7	10,730	11,630	11,610	11,640	11,640	11,600	11,370	10,170	11,660	9,940	11,590	9,620
8	10,760	11,640	11,540	11,660	11,600	11,680	11,170	10,040	11,520	10,040	11,460	9,800
9	10,830	11,620	11,540	11,600	11,600	11,730	10,970	10,430	11,660	10,210	11,340	10,100
10	10,890	11,640	11,590	11,650	11,590	11,640	10,770	10,070	11,640	10,470	11,050	10,700
11	10,990	11,640	11,470	11,610	11,640	11,490	10,800	9,350	11,640	11,280	10,970	11,620
12	11,060	11,690	11,550	11,600	11,640	11,610	10,700	9,020	11,550	10,960	11,030	11,740
13	11,180	11,580	11,730	11,660	11,600	11,080	10,720	8,900	11,270	10,860	11,060	11,210
14	11,330	11,620	11,620	11,650	11,590	10,870	10,420	8,800	10,300	10,700	11,380	11,130
15	11,450	11,630	11,560	11,670	11,590	10,700	10,090	8,740	9,400	10,700	11,560	11,080
16	11,600	11,600	11,660	11,560	11,600	10,730	10,090	8,860	9,690	10,620	11,260	10,840
17	11,710	11,700	11,630	11,620	11,590	10,660	10,460	8,510	10,050	10,510	11,020	10,810
18	11,750	11,580	11,640	11,610	11,590	10,600	10,280	7,960	10,240	10,410	10,950	10,810
19	11,730	11,640	11,610	11,590	11,520	10,200	10,470	7,890	10,360	10,480	10,770	10,730
20	11,730	11,670	11,560	11,590	11,600	10,420	10,470	7,680	10,410	10,920	10,640	10,530
21	11,690	11,680	11,640	11,620	11,600	10,500	10,530	8,030	10,070	11,140	10,770	10,390
22	11,610	11,590	11,560	11,580	11,600	10,170	10,580	8,910	9,750	11,430	10,730	10,290
23	11,640	11,520	11,510	11,620	11,580	10,310	10,780	9,150	9,580	11,550	10,870	10,330
24	11,650	11,660	11,430	11,610	11,500	10,330	11,130	9,230	9,650	11,550	10,780	10,230
25	11,680	11,630	11,430	11,600	11,630	10,240	11,150	9,390	9,550	11,510	10,620	9,730
26	11,630	11,630	11,430	11,560	11,590	10,060	11,270	8,740	9,960	11,600	10,520	9,560
27	11,740	11,630	11,550	11,610	11,530	10,140	11,270	10,390	10,810	11,550	10,560	9,240
28	11,700	11,550	11,600	11,630	11,560	10,130	11,280	10,910	10,830	11,430	10,630	9,030
29	11,680	11,640	11,590	11,690	11,640	10,030	11,240	11,460	10,600	11,400	10,700	8,800
30	11,630	11,610	11,690	11,500	11,500	10,050	11,030	11,650	10,300	11,370	10,460	8,570
31	11,690	11,630	11,460	11,630	11,600	10,220	11,670	11,670	10,170	11,660	10,170	8,570

Change in contents from last of month to last of month (acre feet)

Mo.	820	-30	-200	7160	-60	-1,340	7810	7640	-1,470	71,460	-1,490	-1,600
AVAR.	713.3	-0.5	-3.3	72.6	-1.1	-21.8	713.6	710.4	-24.7	723.8	-24.2	-26.9

Computed from elevations at 12100 midnight  
furnished by Utah Power & Light Co.YEAR  
OR  
PERIOD  
MAX.  
ACRE-Feet  
-3.2  
-2,300

Plate No. 17

for the year ending September 30, 1954.

NEAR	194	245	244	228	249	394	428	753	836	1,138	922	577
Acres-11,940		14,570	15,030	14,000	3,800	24,230	25,480	46,270	49,740	69,980	56,700	34,360

Plate No. 18

**Bear River below Grace Dam near Grace, Idaho**

for the year ending September 30, 19

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	2	3	2	1	2	2	3	11	9	3	3
2	6	4	3	2	1	2	2	4	9	8	3	3
3	5	4	3	2	1	2	6	4	11	8	3	3
4	9	2	3	2	1	2	4	4	9	8	3	3
5	11	3	3	2	1	2	7	13	14	4	4	3
6	5	4	3	2	1	3	5	4	14	4	5	7
7	3	2	3	2	1	3	3	14	14	4	3	5
8	4	2	3	2	1	3	3	26	15	3	3	4
9	3	3	3	2	1	7	3	39	15	3	3	3
10	2	3	3	2	1	5	2	33	19	3	3	3
11	3	3	3	2	1	3	2	58	24	4	3	3
12	3	6	3	2	1	3	2	46	26	3	5	3
13	5	3	3	2	1	4	2	51	18	3	4	3
14	7	9	3	1	1	3	2	46	17	3	3	3
15	3	11	3	1	1	5	3	53	20	4	3	3
16	4	6	3	1	2	13	3	53	21	3	4	3
17	8	5	3	1	2	8	2	49	15	5	3	3
18	4	10	3	1	2	14	18	43	14	3	3	3
19	6	9	3	1	2	4	4	48	15	5	3	3
20	4	5	3	1	2	9	3	46	13	4	3	3
21	4	8	3	1	2	4	5	43	15	3	4	3
22	2	2	3	1	2	4	11	30	15	4	3	6
23	2	3	3	1	2	3	8	28	14	4	3	3
24	2	2	3	1	2	2	12	10	14	4	3	3
25	3	4	3	1	2	3	7	8	17	5	3	3
26	9	3	3	1	2	6	12	17	16	7	4	3
27	2	3	3	1	2	7	5	15	14	7	3	3
28	6	3	3	1	2	7	8	13	13	5	2	3
29	6	3	3	1	2	2	7	11	12	4	2	3
30	2	3	3	1	2	5	5	12	12	4	2	3
31	2	3	3	1	2	5	5	11	12	4	3	3
	146	130	93	44	41	140	157	835	456	145	101	100

Mean	4.7	4.3	3.0	1.4	1.5	4.5	5.2	26.9	15.2	4.7	3.3	3.3
Actual	290	258	184	87	81	278	311	1,660	904	288	200	198
Test												

## contents acre

Daily discharge, in acre-feet, of

## Onelda Reservoir at Oneida, Idaho

for the year ending September 30, 1924.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,430	10,530	10,730	9,740	9,040	9,270	10,380	9,550	10,380	9,790	10,280	9,550
2	10,630	10,230	10,380	9,130	9,410	9,320	9,550	10,030	10,480	9,550	10,130	9,930
3	10,580	10,480	10,230	9,270	9,840	9,220	9,180	9,600	10,180	9,640	9,740	9,000
4	11,130	10,680	10,580	9,090	9,550	9,740	9,320	9,130	10,480	9,270	9,320	8,720
5	10,780	10,230	10,330	9,360	9,690	9,360	9,740	9,410	9,980	9,220	9,640	9,220
6	10,880	10,630	9,780	9,690	9,790	9,740	10,030	9,130	10,330	9,360	9,740	8,410
7	11,080	10,530	10,430	9,940	9,740	9,640	9,550	8,590	10,580	7,890	10,080	8,150
8	10,830	10,680	10,230	9,550	8,550	9,340	9,000	9,000	10,680	9,000	9,740	8,950
9	10,980	10,580	10,230	9,270	9,270	9,500	8,420	9,790	10,480	9,740	9,740	9,740
10	11,030	10,480	9,320	8,860	9,690	9,220	10,680	9,320	10,430	10,120	9,550	10,930
11	10,730	10,930	9,270	9,320	9,640	8,590	11,180	8,860	10,480	10,130	9,260	10,730
12	10,730	10,580	9,880	9,130	9,640	8,900	10,130	8,460	10,150	8,640	9,550	10,130
13	11,130	10,480	9,980	9,270	9,880	8,900	9,740	8,550	10,580	9,410	9,450	9,640
14	10,780	10,480	10,280	9,550	9,880	8,640	9,360	9,550	10,330	9,740	9,270	10,430
15	10,930	10,830	9,640	9,450	9,930	9,090	9,550	9,410	9,600	9,740	8,500	10,430
16	10,480	10,530	9,270	9,270	9,640	9,640	9,450	9,500	10,030	9,410	8,820	9,980
17	10,680	10,730	9,320	9,410	9,600	8,460	9,600	9,000	10,180	9,040	9,090	9,840
18	11,130	10,330	9,930	9,450	9,450	9,270	10,230	7,510	10,030	9,270	9,740	10,380
19	11,080	10,330	9,410	9,790	9,320	9,410	9,180	7,300	10,930	9,690	9,840	10,380
20	10,680	10,580	9,130	10,080	9,500	9,740	9,410	6,070	10,830	9,130	9,740	9,290
21	10,830	10,480	9,550	9,640	9,640	9,880	8,820	6,700	9,600	9,500	8,820	9,640
22	10,480	10,680	9,270	8,860	9,410	9,740	9,550	8,150	9,090	9,500	8,820	9,450
23	10,730	10,630	8,770	8,860	9,740	9,640	9,740	9,090	9,000	9,220	8,900	9,840
24	10,580	10,480	8,820	8,900	9,840	9,180	10,530	9,930	9,040	9,880	9,180	10,530
25	10,530	10,530	8,900	9,090	9,690	9,790	9,880	9,640	8,900	9,320	9,450	10,630
26	10,730	10,730	9,090	9,410	9,450	9,550	9,880	10,080	9,790	9,180	10,030	9,740
27	10,530	10,380	9,450	8,900	9,790	9,980	9,550	10,480	10,680	8,330	10,030	10,180
28	10,680	9,600	9,360	9,360	9,790	9,690	9,270	10,830	9,740	9,040	9,360	10,130
29	10,080	10,280	9,450	9,640	9,640	8,860	9,690	10,930	9,640	9,500	9,040	10,780
30	10,380	10,530	9,500	9,040	—	9,930	9,690	10,730	9,410	10,780	8,900	10,980
31	10,130	—	8,820	9,040	—	10,430	—	10,930	—	10,730	9,690	—

Change in contents from last of month to last of month (acre-feet)

150	400	-1,710	220	-740	790	-1,520	71,320	-1,040	71,790
Equivalent mean discharge in second-foot									
-2.4	46.7	-27.8	43.6	40.8	42.8	-25.5	471.5	-16.9	471.7

Computed from elevations at 1:00 midnight.  
Provided by Utah Power & Light Co.Year  
1924  
Month  
Sept.  
Acres  
471.7

Plate No. 20

Discharge, in cubic feet, of Bear River below U. P. & L. Co.'s tailrace at Oneida, Idaho for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	363	189	356	30	527	624	490	704	874	968	777	1,190
2	298	492	576	593	189	460	737	359	704	1,190	931	860
3	349	321	494	334	212	463	584	712	953	1,060	966	1,530
4	100	355	250	363	521	156	290	920	830	1,270	1,010	1,210
5	520	578	503	258	328	617	501	586	1,030	1,060	635	821
6	338	251	498	244	363	280	750	685	548	1,060	814	1,340
7	256	454	230	283	440	446	1,200	748	673	1,750	528	1,110
8	426	366	504	593	918	425	1,240	349	795	820	880	640
9	253	455	418	499	94	873	847	161	930	849	817	541
10	300	421	843	579	168	923	149	611	762	907	967	306
11	486	199	466	191	403	1,150	613	886	678	1,090	1,030	668
12	322	578	221	500	386	527	1,260	1,010	622	1,620	681	850
13	162	482	336	335	427	637	913	780	187	770	937	935
14	474	468	258	199	642	923	932	333	552	993	956	428
15	252	222	795	482	561	552	780	692	1,000	1,090	1,110	615
16	556	508	639	492	568	449	934	599	494	1,280	717	698
17	204	366	382	370	469	1,140	641	905	225	1,230	859	528
18	142	623	161	375	536	361	372	1,530	534	993	716	302
19	428	427	706	264	480	630	1,080	983	235	922	1,030	458
20	581	249	612	253	354	739	653	1,440	485	1,150	1,060	787
21	352	437	257	551	320	588	817	606	1,010	638	1,440	630
22	646	353	577	752	602	637	322	172	848	945	939	613
23	337	555	629	453	303	712	540	213	762	980	944	381
24	478	644	405	410	427	813	139	358	754	559	1,000	212
25	441	371	369	339	566	351	727	887	741	1,120	923	440
26	261	403	308	252	590	820	661	620	341	894	828	933
27	565	571	220	630	317	425	850	490	257	1,200	995	288
28	318	818	382	194	529	814	840	334	1,040	587	1,180	335
29	659	99	367	237	—	1,080	507	296	1,100	597	1,040	231
30	316	327	346	718	—	143	632	361	1,140	199	1,020	327
31	570	—	748	400	—	328	—	509	—	636	769	—
Total	11,763	12,582	13,856	12,173	12,240	19,081	21,001	19,839	21,104	30,346	28,699	20,207

Max.	379	419	447	393	437	616	700	640	703	979	926	674
Arith.	20,330	24,960	27,480	24,140	24,280	37,850	41,650	39,350	41,860	60,190	56,920	40,080
Est.												

Max. daily disch., 1,750 cfs July 7

YEAR  
1954

MONTH  
JULY

611

ARITHMETIC  
442,100

Plate No. 21

for the year ending September 30, 1954

## Bear River near Preston, Idaho

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	262	349	131	518	662	462	722	599	728	609	905
2	171	544	547	482	234	381	672	226	447	987	827	630
3	262	169	524	476	239	603	557	693	801	855	784	1,240
4	73	371	344	399	537	146	437	861	587	979	877	1,150
5	368	557	448	297	321	615	487	460	839	912	478	1,665
6	238	284	528	315	404	231	658	660	380	707	702	1,180
7	163	377	347	288	370	390	1,100	589	460	1,590	259	941
8	389	414	481	570	945	446	1,280	341	644	587	760	508
9	133	446	430	486	205	868	763	50	827	561	675	350
10	325	389	773	648	225	897	336	428	590	758	773	185
11	383	215	611	234	332	1,020	491	528	473	616	909	520
12	206	525	267	465	422	648	1,270	910	421	1,520	684	719
13	156	432	326	404	365	525	882	632	192	726	731	783
14	426	427	278	193	809	989	913	245	396	590	751	333
15	180	240	748	569	555	512	765	516	724	1,050	915	507
16	397	432	635	513	626	557	974	391	377	1,050	545	608
17	266	394	461	378	539	557	513	705	102	945	687	457
18	222	548	192	379	508	372	435	1,190	169	912	579	219
19	346	408	673	310	429	446	1,090	807	300	712	687	375
20	434	276	560	257	417	500	634	1,180	190	1,010	901	638
21	324	286	362	535	413	818	780	629	932	421	1,190	473
22	514	402	577	697	589	801	440	104	635	727	824	561
23	260	521	656	520	265	724	511	107	589	801	777	307
24	430	643	454	505	403	750	102	183	489	349	833	116
25	476	391	422	393	656	349	672	636	478	978	747	363
26	287	439	326	270	532	813	553	421	219	700	688	706
27	472	490	213	558	428	405	703	354	106	993	764	252
28	290	652	456	255	477	719	904	96	814	416	1,050	243
29	544	413	266	308		1,050	489	138	893	498	805	149
30	317	319	477	647		212	519	198	952	110	935	217
31	587		738	532		359		338		453	638	
<b>9,887</b>	<b>12,266</b>	<b>14,469</b>	<b>13,014</b>	<b>12,773</b>	<b>18,928</b>	<b>20,391</b>	<b>15,345</b>	<b>15,625</b>	<b>24,241</b>	<b>23,384</b>	<b>16,300</b>	

<b>Mean</b>	<b>319</b>	<b>409</b>	<b>467</b>	<b>420</b>	<b>456</b>	<b>611</b>	<b>680</b>	<b>495</b>	<b>521</b>	<b>782</b>	<b>754</b>	<b>543</b>
<b>Annual</b>	<b>19,610</b>	<b>24,330</b>	<b>28,700</b>	<b>25,810</b>	<b>25,330</b>	<b>37,540</b>	<b>40,440</b>	<b>30,440</b>	<b>30,990</b>	<b>48,080</b>	<b>46,380</b>	<b>32,330</b>

Daily discharge, in second-feet, of Bear River near Collinston, Utahfor the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	1,340	1,140	164	782	1,400	1,180	1,440	32	33	36	36
2	80	641	715	1,450	1,140	981	1,310	980	32	33	36	45
3	270	1,020	1,100	961	1,030	924	903	1,280	32	34	36	41
4	32	968	1,100	620	898	747	579	200	32	34	36	33
5	160	909	1,130	646	925	1,840	359	619	213	56	34	33
6	550	454	472	1,340	862	946	1,250	1,320	352	31	36	33
7	280	1,400	863	1,020	996	953	1,690	202	728	39	34	158
8	940	517	1,220	1,190	1,200	1,060	1,560	272	699	31	36	33
9	515	832	623	804	1,080	1,410	1,960	31	283	32	38	33
10	350	990	1,310	1,050	774	844	2,210	32	504	32	42	33
11	58	905	1,020	795	840	1,950	1,900	307	866	24	42	33
12	252	976	1,070	960	900	1,480	1,640	150	750	34	36	34
13	346	740	1,140	1,100	969	1,990	1,220	72	488	34	32	136
14	305	1,020	699	1,340	1,830	1,790	1,640	62	108	44	32	32
15	432	987	1,280	1,170	2,000	1,620	1,940	30	70	38	32	973
16	806	1,020	811	586	1,670	1,540	2,210	30	168	26	33	32
17	536	825	503	1,270	1,910	1,450	1,550	55	448	34	33	33
18	702	937	1,370	944	1,430	1,540	1,870	60	293	39	32	36
19	650	1,350	1,150	1,020	1,670	1,510	2,010	53	31	36	32	34
20	431	1,990	1,070	863	1,190	1,410	2,140	31	31	38	32	34
21	619	1,130	482	1,210	1,440	1,200	2,160	576	32	38	33	34
22	818	30	1,790	943	864	1,120	1,200	694	44	34	36	36
23	1,080	55	1,220	962	1,140	1,550	1,660	940	30	34	33	657
24	850	890	1,050	1,120	1,490	1,730	1,550	36	31	34	34	1,400
25	1,080	1,650	659	1,250	1,370	1,410	1,550	43	31	52	33	577
26	1,030	876	605	1,020	1,010	1,540	1,750	32	32	36	33	79
27	1,050	912	367	1,140	965	1,220	1,500	122	32	194	33	803
28	765	1,500	1,070	1,100	1,230	1,730	1,540	100	33	31	33	1,110
29	879	733	738	1,030	1,440	1,440	929	214	33	102	34	1,110
30	1,070	1,120	834	1,820	1,010	1,010	1,180	34	33	102	36	348
31	545		1,110	890		1,150		33		33	38	
<b>Total</b>	<b>17,751</b>	<b>28,717</b>	<b>29,711</b>	<b>31,778</b>	<b>33,605</b>	<b>42,385</b>	<b>46,040</b>	<b>10,248</b>	<b>6,501</b>	<b>1,412</b>	<b>1,076</b>	<b>8,009</b>

Mean Annual Flow	573	957	958	1,025	1,200	1,367	1,535	331	217	45.5	34.7	267
<b>Total</b>	<b>35,210</b>	<b>56,360</b>	<b>58,930</b>	<b>63,030</b>	<b>66,650</b>	<b>84,070</b>	<b>91,320</b>	<b>20,330</b>	<b>12,890</b>	<b>2,800</b>	<b>2,130</b>	<b>15,890</b>

Plate No. 23

 YEAR  
 1954  
 MEAN  
 705  
 ANNUAL  
 FLOW  
 510,200

Daily discharge, in second-feet, of

**Bear River near Corinne, Utah**

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	701	888	1,290	1,250	1,060	1,560	1,390	1,410	180	127	134	103
2	326	1,370	1,320	500	910	1,450	1,490	1,600	162	120	120	109
3	215	842	922	1,400	1,140	1,070	1,090	1,360	153	113	113	119
4	218	1,130	1,260	1,070	1,130	1,090	806	1,460	166	115	115	128
5	204	1,260	1,300	790	980	1,100	536	626	150	115	113	133
6	206	1,170	1,280	800	1,010	1,610	1,270	732	202	107	114	133
7	467	698	869	1,440	950	1,140	1,770	1,480	468	112	107	134
8	445	1,350	1,090	1,180	1,120	1,220	1,790	625	852	112	107	176
9	1,000	838	1,250	1,300	1,300	1,210	1,890	450	921	118	112	151
10	752	1,030	787	1,000	1,220	1,510	2,060	150	630	107	114	131
11	539	1,100	1,440	1,170	885	1,180	2,230	110	633	103	110	132
12	331	1,080	1,200	970	918	1,840	2,070	317	1,040	104	113	133
13	328	1,240	1,200	1,150	1,040	1,630	1,700	235	995	104	126	133
14	496	937	1,280	1,340	1,250	2,110	1,620	219	727	106	121	138
15	483	1,230	915	1,510	1,860	1,810	1,990	154	405	105	118	160
16	623	1,110	1,330	1,380	2,000	1,820	2,350	126	247	107	115	813
17	865	1,300	1,000	925	1,830	1,590	2,320	110	282	109	108	438
18	805	1,090	801	1,320	1,790	1,660	1,840	110	514	119	106	165
19	809	1,090	1,320	1,140	1,650	1,690	1,970	122	428	126	107	133
20	810	1,530	1,270	1,240	1,630	1,540	2,330	132	211	125	107	120
21	624	1,970	1,260	1,060	1,490	1,430	2,280	133	142	119	106	114
22	750	1,420	832	1,350	1,560	1,380	2,130	505	127	122	115	115
23	918	407	1,730	1,130	972	1,490	1,740	860	119	121	120	199
24	1,210	206	1,370	1,150	1,230	1,670	1,650	1,120	119	116	121	731
25	1,090	811	1,300	1,300	1,700	1,790	1,720	363	115	112	113	1,290
26	1,160	1,640	810	1,420	1,480	1,660	1,870	173	119	120	114	703
27	1,210	1,180	750	1,190	1,220	1,590	1,780	143	134	130	109	320
28	1,130	1,160	520	1,300	1,220	1,500	1,760	142	145	236	108	668
29	984	1,580	1,220	1,260	1,220	1,740	1,720	180	140	175	110	1,210
30	1,010	1,190	960	1,180		1,590	1,350	246	131	143	110	1,310
31	1,320		1,060	1,700		1,090		254		154	107	
<hr/>												
	22,029	33,847	34,836	36,915	36,545	46,760	52,512	15,647	10,657	3,802	3,513	10,342

Mean Annual Runoff	711	1,128	1,124	1,191	1,305	1,508	1,750	505	355	123	113	345
Accumulated Runoff	43,690	67,130	69,100	73,220	72,490	92,750	104,200	31,040	21,140	7,540	6,970	20,510

U. S. GOVERNMENT PRINTING OFFICE: 1953

YEAR  
1954  
August

NORTH

842

609,800

Plate No. 24

for the year ending September 30, 1954

## Mill Creek at Utah-Wyoming State Line

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	9.2	9.2			8.0	9.2	44	50	6.2	4.7	2.7
2	5.3	9.2	8.8				8.0	36	44	6.2	4.7	3.3
3	5.3	10	8.5				10	38	44	5.9	4.4	20
4	5.3	10					13	62	38	6.2	3.9	8.4
5	5.3	10				8.8	17	95	36	10	5.0	4.4
6	5.6	10				8.8	17	108	31	8.0	4.2	3.6
7	5.6	9.2				8.4	13	128	30	7.1	3.6	3.1
8	5.6	8.4	8.0			7.7	12	132	28	6.5	3.4	3.3
9	5.6	11				7.7	14	148	27	6.8	3.3	3.1
10	5.6	10				8.8	13	148	24	5.6	3.4	3.1
11	5.6	10				8.8	14	148	23	5.9	3.6	3.1
12	5.6	10				7	17	144	22	6.5	4.8	3.3
13	5.6	10		8.0		8.8	18	132	22	7.7	4.4	3.9
14	5.9	9.6			9.0	8.8	27	130	29	10	3.7	4.2
15	6.8	9.6				8.8	25	120	31	8.0	3.6	4.2
16	7.1	7.4	9.0			8.5	28	115	37	5.9	3.6	4.0
17	6.5	8.8				8.5	42	118	35	5.9	3.6	3.9
18	6.2	8.8				9.2	59	132	27	8.0	3.7	3.9
19	6.2	8.8				10	56	135	22	9.2	3.9	3.9
20	6.8	8.0				9.6	47	134	19	7.4	4.5	3.9
21	8.0	9.6				9.6	46	130	18	7.1	4.4	4.0
22	7.4	10				9.6	54	156	16	5.9	4.7	4.0
23	8.0	10				8.4	62	100	14	4.5	4.2	6.2
24	8.4	11				9.2	71	77	13	4.4	3.7	8.0
25	8.4	9.6	8.0			9.6	87	76	14	4.2	3.4	8.0
26	7.4	9.6				10	83	71	17	4.5	3.3	5.9
27	9.2	8.8				8.8	83	54	24	22	3.3	5.0
28	9.6	8.4				8.4	83	42	18	7.1	3.3	4.8
29	10	7.7		8.0		8.8	56	38	13	5.0	3.4	4.5
30	9.6	8.0				8.8	52	45	10	5.0	3.6	4.2
31	9.2					8.0		42		4.8	2.8	
	212.0	277.8	257.5	248	252	270.1	1,136.2	3,078	776	217.5	120.1	147.9

MEAN	6.84	9.26	8.31	8.0	9.0	8.71	37.9	99.3	25.9	7.02	3.87	4.93
AGUE-	420	551	511	492	500	536	2,250	6,110	1,540	431	238	293
YEAR												
MEAN												
AGUE-PIER												
13,870												

U. S. GOVERNMENT PRINTING OFFICE: 1954

Plate No. 25

for the year ending September 30, 1954

## Sulphur Creek near Evanston, Wyoming

Daily discharge, in second-feet, of

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	4.9	10	8.0			23	20	75	2.7	1.2	.9
2	1.0	4.9	11				27	20	61	2.8	1.1	1.2
3	1.3	4.9	8.3				49	13	47	2.8	1.2	1.4
4	1.5	5.3	7.6				75	10	31	2.5	1.4	1.4
5	1.6	7.1	8.1			8.0	136	8.3	23	3.2	2.5	1.2
6	1.9	10	7.6				129	7.6	36	3.6	1.5	1.0
7	1.9	7.6					76	8.3	62	3.8	1.2	.9
8	1.9	7.4					84	11	52	3.3	1.1	1.0
9	3.3	7.9			10		118	9.0	40	2.4	1.1	.9
10	3.3	9.6	8.0				100	8.1	41	2.1	1.1	.8
11	2.7	9.6					82	13	30	2.0	1.1	.8
12	2.6	9.6					87	12	23	2.0	2.0	.8
13	3.3	8.7					88	13	22	2.1	1.5	1.0
14	3.5	8.1				15	89	9.3	55	2.5	1.4	.9
15	4.0	7.9					58	8.1	60	2.8	1.2	.8
16	4.2	7.4					42	10	92	2.5	1.1	.8
17	4.2	8.1					38	15	74	2.5	1.1	.7
18	3.8	6.0	9.0	8.0			36	29	52	3.8	1.1	.6
19	3.8	8.1					34	19	38	7.1	1.1	.6
20	4.9	5.9					26	12	29	9.3	1.1	.6
21	6.4	8.7				14	18	22	19	9.0	1.4	.6
22	5.3	7.9				16	12	166	14	6.2	1.4	.7
23	5.1	6.7				17	11	113	12	4.6	1.3	.9
24	5.5	7.1			10	16	11	50	7.6	2.7	1.2	1.0
25	6.2	8.3				17	10	23	5.9	2.2	1.2	1.0
26	6.2	9.3	8.0			17	10	16	4.6	2.4	1.1	.8
27	6.4	10				18	5.3	11	9.6	2.4	1.0	.8
28	7.6	10				18	4.9	9.3	6.2	2.1	1.0	.8
29	6.4	10				21	7.1	9.0	4.2	1.6	1.0	.8
30	5.7	10				20	10	15	3.5	1.6	1.0	.8
31	5.1					25		33		1.3	.9	
	121.8	237.0	258.6	248	280	444	1,496.3	723.0	1,029.6	101.9	38.6	26.5

MEAN	3.93	7.90	8.34	8.0	10	14.3	49.9	23.3	34.3	3.29	1.25	.88
ACRE-FOOT	242	470	513	492	555	881	2,970	1,130	2,040	202	77	53
PER												

U. S. GOVERNMENT PRINTING OFFICE: 1950

13.7

MEAN

VOLUME

ACRE-FOOT

9,920

Plate No. 26

Daily discharge, in second-feet, of Yellow Creek near Evanston, Wyoming for the year ending September 30, 1954.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							3.3	12	3.8	.1		
2						.8	4.8	11	4.0	.1		
3							8.8	9.5	3.3	0		
4							9.9	9.1	2.8	0		
5							14	9.5	2.3	0		
6						.8	18	15	1.9	0		
7					0		14	17	1.6	0		
8							14	17	1.6	0		
9							14	16	1.6	0		
10							14	16	1.9	0		
11							14	16	1.3	0		
12							16	14	1.3	0		
13							17	12	1.4	0		
14							21	9.9	1.3	0		
15						3.5	20	8.8	1.4	0		
16							14	7.6	1.0	0		
17							12	6.5	1.4	0		
18							12	5.0	1.0	0		
19							12	4.6	1.2	0		
20							12	3.6	.8	0		
21					1.0		10	3.0	.5	0		
22							9.5	4.3	.4	0		
23						3.8	9.1	6.9	.4	0		
24						4.0	10	8.8	.4	0		
25						3.8	12	6.2	.3	0		
26						3.6	13	4.0	.3	0		
27						3.0	13	3.3	.4	0		
28						3.0	14	3.0	.3	0		
29						3.8	15	2.8	.2	0		
30						4.6	12	2.8	.1	0		
31						6.2		3.9		0		

0 0 0 0 0 0 13.0 91.2 382.4 268.8 40.2 0.2 0 0 0

Mean	0	0	0	0	0	0	12.7	8.67	1.34	.01	0	0
Acres	0	0	0	0	0	26	758	533	80	0.4	0	0
Feet						181						

Year 1954 Month 9 Total 2.18  
Acres-Feet 1,580

Daily discharge, in second-feet, of Chapman Canal at State Lins near Evansville, Wyoming, for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	11	38		0	20	32	18	54	38		
2	0	9.1	38		0	25	32	18	65	15		
3	0	7.4	38		0	25	40	17	53	3.4		
4	0	12	38		0	25	46	16	45	0		
5	0	13	25		0	30	62	40	42	0		
6	0	13	0		0	22	80	72	54	0		
7	0	18	0		0	30	74	77	61	0		
8	0	15	0		0	30	71	79	62	0		
9	0	14	0		0	36	74	75	40	0		
10	0	17	0		0	51	75	79	33	0		
11	0	21	0		0	61	72	79	30	0		
12	0	25	0		0	50	55	78	21	0		
13	0	27	0		0	51	24	86	15	0		
14	0	26	0		0	53	24	85	9.7	0		
15	0	23	0		0	35	23	85	25	0		
16	.4	23	0		0	5.8	22	82	36	0		
17	.3	27	0		0	23	22	71	68	0		
18	.5	28	0		0	27	22	57	55	0		
19	.7	26	0		0	60	23	61	44	0		
20	1.9	23	0		0	70	23	62	36	0		
21	3.4	30	0		0	60	22	65	27	0		
22	2.1	35	0		0	53	22	77	22	0		
23	2.1	40	0		0	41	22	75	22	0		
24	2.2	40	0		0	40	22	41	20	0		
25	3.4	40	0		0	36	21	20	.2	0		
26	4.7	40	0		0	35	22	22	0	0		
27	5.8	39	0		0	35	22	20	.1	0		
28	6.3	34	0		10	34	22	19	.3	0		
29	8.5	36	0			34	20	48	.8	0		
30	8.4	39	0			35	18	58	2.1	0		
31	7.7		0			32		58		0		
Mean	71.4	751.5	177	0	10	1,164.8	1,109	1,740	943.2	56.4	0	0

Mean	1.98	25.0	5.71	0	.4	38.2	37.0	56.1	31.4	1.82	0	0
Actual	122	1,490	351	0	20	2,350	2,200	3,450	1,870	112	0	0

Date of discharge, in second-feet, of Woodruff Creek near Woodruff, Utah for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	11	9.0			12	50	33	13	8.2	7.2
2	10	11	5.9	8.5			12	42	30	13	8.2	7.5
3	10	12	6.0	8.5		10	18	38	29	12	8.2	8.2
4	10	12	7.0	8.5			24	42	28	12	8.5	7.9
5	9.5	11	6.0	8.5	8.5		29	57	27	13	14	7.5
6	9.5	15	7.0	8.5			32	83	26	12	10	6.6
7	9.5	10	8.0	9.5		13	25	105	25	12	9.0	6.6
8	9.5	8.5	7.0	9.0		16	23	116	22	11	9.0	6.9
9	9.5	10	9.0	8.5		27	24	130	22	11	8.5	6.9
10	9.5	14	10	8.0		35	24	138	24	10	8.2	6.6
11	9.5	14	8.0	8.0		25	24	111	21	10	8.2	6.3
12	10	14	10	8.2		20	28	121	21	10	8.5	6.6
13	9.5	14	10	7.9	11	18	35	119	20	10	9.0	7.2
14	10	12	11	8.2		16	42	116	20	10	9.0	7.2
15	10	13	12	8.5		16	42	106	20	10	8.2	7.2
16	10	12	12	8.5		18	41	92	21	9.5	7.9	6.6
17	10	12	12			19	48	88	20	9.0	7.9	6.9
18	10	12	12			17	54	80	18	19	7.9	7.2
19	10	8.5	12			15	55	72	17	16	7.9	8.2
20	10	7.0	12			16	55	68	17	12	7.9	8.5
21	10	7.9	11			15	52	66	16	12	8.2	8.5
22	11	9.0				13	50	62	16	11	9.0	8.5
23	11	12				14	54	51	15	11	8.2	9.5
24	11	12		9.5		14	62	47	15	11	7.9	10
25	11	9.5				14	70	45	15	12	7.2	10
26	10	9.5				12	74	43	15	12	7.2	9.0
27	11	10	9.5			13	75	38	17	12	7.5	9.5
28	11	8.2	9.5			13	83	37	18	10	7.5	10
29	11	7.5	10			12	66	35	15	9.0	7.5	10
30	11	7.5	9.5			12	56	35	14	8.5	7.5	10
31	11	9.0	9.0			9.5		33		8.5	7.5	
	315.0	326.1	291.4	278.3	295.0	472.5	1,289	2,266	617	351.5	259.7	238.8

MEAN	10.2	10.9	9.40	8.98	10.5	15.2	43.0	73.1	20.6	11.3	8.38	7.96
ACRE-FOOT	625	647	578	552	585	937	2,560	4,490	1,220	697	515	474

U. S. GOVERNMENT PRINTING OFFICE : 1954 O - 268411

YEAR  
FOR  
PERIOD

MEAN

19.2

ACRE-FOOT

13,880

Plate No. 29

Daily discharge, in second-feet, of Birch Creek near Woodruff, Utah for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.4	.2	.4			.4	.6	5.6	2.4	22	15	
2	.4	.2	.3			.4	.6	4.8	2.0	22	14	
3	.4	.2	.3			.3	.7	4.4	1.8	22	14	
4	.4	.2	.3			.4	.8	4.2	1.7	22	14	
5	.4	.3	.3			.4	1.2	4.2	1.6	22	14	
6	.4	.3	.5			.7	1.6	4.4	1.7	22	13	
7	.4	.3	.5			.7	1.2	4.6	1.7	20	13	
8	.4	.3	.4			.7	1.2	4.6	1.6	20	13	
9	.4	.3	.4			.8	1.3	4.6	1.4	20	13	
10	.3	.3	.4			1.3	1.3	4.6	1.7	20	13	
11	.3	.3	.4			.9	1.3	4.6	1.4	20	13	
12	.3	.3	.4			.5	1.6	4.4	1.2	21	12	
13	2.4	.3	.4			.6	1.8	4.6	1.1	20	12	
14	1.3	.3	.4			.6	2.4	4.4	1.1	20	12	
15	.3	.3	.4			.6	2.3	4.2	1.1	20	11	
16	.2	.3	.5			.6	2.3	4.2	1.1	19	11	
17	.2	.3	.4			.6	2.6	3.8	1.1	19	10	
18	.2	.4	.5			.6	3.5	3.6	.8	19	9.7	
19	.1	.3	.5			.7	4.0	3.5	.7	19	8.1	
20	.1	.4	.5			.6	4.4	3.3	.7	18	.5	
21	.1	.3	.4			.6	4.8	3.5	3.1	18	.4	
22	.1	.3	.5			.6	4.6	3.6	8.5	17	.3	
23	.1	.4	.5			.6	4.8	3.1	10	17	.2	
24	.1	.4	.4			.6	5.4	2.8	11	17	.1	
25	.1	.4	.3			.6	5.8	2.6	12	17	.1	
26	.1	.4	.2			.6	5.8	2.6	13	18	0	
27	.1	.4	.3			.6	5.8	2.4	13	17	0	
28	.1	.4	.4			.6	6.2	2.4	17	17	0	
29	.1	.4	.5			.6	6.2	2.1	19	16	0	
30	.1	.4	.5			.6	5.8	2.6	19	16	0	
31	.2	.4	.5			.6		2.1		15	0	
10.5	9.6	12.7	13.2	9.8	19.0	91.9	116.4	153.5	592	236.4	0	

MEAN DAILY DISCHARGE	21	19	25	26	19	35	61	3.06	2.75	5.12	19.1	7.63	0
MEAN DAILY DISCHARGE	21	19	25	26	19	38	182	231	304	1,170	469	0	0

U. S. GOVERNMENT PRINTING OFFICE: 1954

Y HAN MZA 3.46  
PERCENT  
AGREEMENT 2,500

Plate No. 30

Daily discharge, in *ac cond feet*, of **Big Creek near Randolph, Utah**, for the year ending September 30, 19- **54**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	12				9.2	20	19	13	10	8.1
2	15	14					9.8	18	19	13	10	8.6
3	15	14					11	17	18	13	10	9.2
4	15	14					12	18	18	13	10	8.6
5	15	14					12	18	18	13	11	8.6
6	15	15					13	19	18	13	10	8.1
7	15	14					11	20	18	12	10	7.8
8	15	15					11	20	18	12	9.5	7.8
9	15	14					11	21	18	12	9.5	7.8
10	15	14					11	22	19	12	9.2	7.8
11	15	14					11	22	18	12	9.2	7.8
12	15	14					12	22	17	12	9.5	8.6
13	15	14					12	22	17	12	9.5	9.8
14	14	14					13	22	17	12	8.9	8.1
15	15	14					13	22	17	12	8.6	8.1
16		14					12	21	17	11	8.6	8.1
17	14	14					13	21	16	11	8.6	7.8
18	14	14					15	21	16	15	8.6	7.8
19	14	12					16	21	16	14	8.6	7.8
20	14	9.0					16	21	15	12	8.3	7.8
21	14	10					15	21	15	12	9.2	7.8
22	15	10					15	22	15	11	9.2	7.8
23	15	11					16	21	14	11	8.9	8.6
24	15	12					17	20	14	11	8.6	9.2
25	14	12					18	20	14	11	8.6	8.6
26	14	12					19	21	14	12	8.6	8.6
27	14	12					20	20	15	13	8.3	8.3
28	14	12					21	20	15	11	8.3	7.8
29	14	12					21	20	14	11	8.3	7.8
30	14	12					20	20	13	11	8.3	7.8
31	14							19		11	8.1	
452	390	322.0	295.0	288.0	353.7	425	632	492	374	282.0	246.4	

MEAN	14.6	13.0	10.4	9.52	10.3	11.4	14.2	20.4	16.4	12.1	9.10	8.21
ACRE-Feet	897	774	639	585	571	702	843	1,250	976	742	559	489

U. S. GOVERNMENT PRINTING OFFICE 18-10866-1

YEAR  
of  
BASIN

MEAN  
ACRE-Feet

12.5  
9,030

Plate No. 31

Daily discharge, in second-feet, of

Randolph Creek near Randolph, Utah

for the year ending September 30, 1912

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	4.2	2.0	5.0	5.0	5.6	4.4	2.6	5.8	5.2	4.4	4.0
2	3.0	4.4	1.9	5.0	5.0	5.2	4.2	2.2	5.6	3.4	4.6	4.2
3	2.8	4.4	1.9	4.8	4.5	5.0	4.4	2.6	5.6	2.7	4.6	4.0
4	2.6	4.2	2.2	4.8	4.5	5.0	4.2	4.8	5.6	2.7	4.6	4.0
5	2.7	3.8	2.2	4.8	4.5	5.0	4.0	6.6	5.6	3.0	4.6	4.0
6	2.6	3.8	2.3	5.0	5.0	5.0	3.0	6.3	5.6	3.1	4.4	4.2
7	2.7	3.8	2.4	5.0	4.7	5.4	1.9	6.1	5.6	2.7	4.4	4.2
8	2.7	3.8	2.3	5.0	4.7	5.6	1.6	6.1	4.0	2.6	4.2	2.6
9	2.6	4.2	2.7	5.0	4.7	7.1	1.6	6.1	2.2	2.6	4.2	1.7
10	2.4	4.4	3.6	5.0	4.7	7.8	1.6	6.1	2.3	3.0	4.2	1.8
11	2.4	4.4	4.0	5.0	5.2	6.8	1.4	6.1	2.1	3.6	4.4	2.8
12	2.6	4.4	4.2	4.8	5.2	5.6	2.7	5.8	1.8	3.6	4.4	1.4
13	3.0	4.4	4.2	4.8	5.2	5.4	2.7	5.8	2.0	5.0	4.4	4.4
14	3.0	2.8	4.4	4.8	5.2	5.4	2.7	5.8	2.0	3.4	4.6	4.2
15	3.1	1.1	4.4	5.0	5.2	5.6	2.1	5.8	2.8	3.0	4.4	3.8
16	3.1	1.7	5.0	5.0	5.2	6.3	1.9	5.8	2.3	5.0	2.6	3.8
17	3.1	2.6	5.6	5.0	5.4	5.8	1.9	5.6	2.3	2.8	2.1	3.8
18	3.1	3.0	5.6	5.0	5.4	5.6	2.2	5.6	2.3	2.2	1.7	3.8
19	3.1	3.8	5.6	5.0	5.2	5.6	1.9	5.6	2.2	2.3	1.8	3.4
20	3.3	3.6	5.6	4.8	5.4	5.6	1.9	3.4	3.8	2.1	2.7	3.3
21	3.4	3.8	5.6	4.6	5.4	5.6	3.0	2.7	2.2	1.9	4.2	3.4
22	3.4	3.6	5.6	4.8	5.4	5.4	2.2	3.3	2.1	1.8	4.2	3.6
23	4.1	4.2	5.0	4.8	5.4	5.4	1.9	3.0	2.0	1.7	4.0	3.8
24	5.6	3.8	5.4	4.8	5.6	5.4	2.3	2.8	1.9	1.6	4.0	3.8
25	5.2	3.1	5.0	4.6	5.6	5.2	2.6	3.1	1.9	1.6	4.0	3.6
26	4.4	2.8	5.4	4.2	5.6	5.0	2.1	4.8	5.4	1.8	4.0	3.3
27	3.8	2.8	5.0	4.6	5.4	5.2	2.3	5.8	5.6	1.8	4.0	3.3
28	3.8	2.8	5.2	4.8	5.4	5.2	2.4	5.8	5.4	1.7	4.0	3.4
29	3.8	1.9	5.2	5.0	5.4	5.2	2.4	5.8	5.4	3.6	4.0	3.6
30	3.8	1.9	5.2	5.0	5.4	5.0	2.6	5.8	5.4	4.4	4.0	3.6
31	3.8		5.0	5.0	5.4	4.4		5.8	5.4	4.4	4.0	
101.4 103.5 129.7 150.8 143.7 171.4 76.1 153.5 108.8 90.3 121.7 107.9												

MEAN ANNUAL EXTR.	3.27	3.45	4.18	4.86	5.13	5.53	2.54	4.25	3.63	2.91	3.93	3.59
201	205	257	299	285	285	340	151	304	216	179	241	214

U. S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION

YEAR  
ON  
FUNDING

MEAN  
4.00

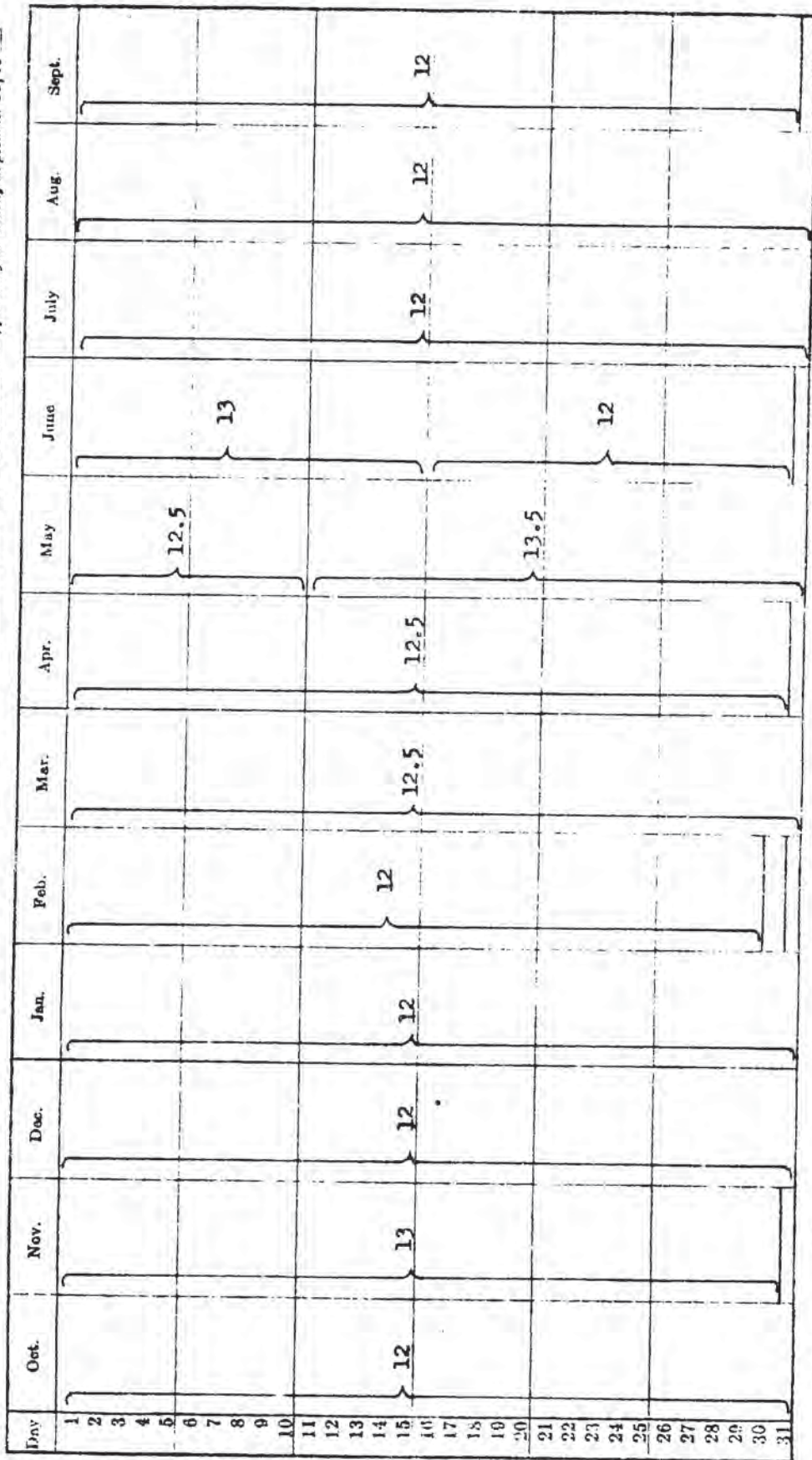
ACRE-Feet  
2,890

Plate No. 32

## Combined flow

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY WATER RESOURCES DIVISION

File No.

Daily discharge/ in second-feet, of North, Middle & South Fork Otter Creek near Randolph, Utah, for the year ending September 30, 19 54

372

390

372

372

336

387.5

375.0

408.5

375

372

372

360

MEAN	12	13	12	12	12.5	12.5	12.5	13.2	12.5	12	12	12
ACRE-												
FEET	738	774	738	738	769	744	810	744	744	738	738	714

U. S. GOVERNMENT PRINTING OFFICE: 1954 O-560011

YEAR	MEAN	12.3
OR		
PERIOD	ACRE-FEET	8,910

Plate No. 33

Daily discharge, in second-feet, of Twin Creek at Sage, Wyoming for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	3.3	6.5				9.0	9.9	1.1	2.7	2.5	3.3
2	3.3	3.5					9.4	10	11	2.7	2.4	2.4
3	3.3	3.5				7.0	16	9.0	9.9	2.5	2.4	2.2
4	3.8	4.9					28	7.6	8.6	2.2	2.5	2.7
5	3.5	4.1					39	8.0	7.2	2.5	3.5	3.0
6	2.4	5.2			6.0		55	8.6	6.2	3.0	2.7	1.8
7	1.2	5.5				7.0	32	6.6	7.2	3.0	2.7	1.7
8	2.0	5.8	5.5	5.0		7.0	26	3.5	8.3	3.0	3.0	1.8
9	2.5	4.9				9.0	35	4.4	7.6	3.0	3.5	1.7
10	2.2	4.4				11	27	4.7	8.0	3.3	3.8	1.7
11	3.8	4.9				11	22	4.9	7.6	3.3	4.1	1.8
12	4.4	4.4				11	24	5.2	7.2	4.1	4.1	2.2
13	4.1	5.8					31	8.6	5.5	4.1	3.8	2.7
14	3.5	7.2				11	24	8.6	6.6	4.7	4.1	3.8
15	4.4	6.2					29	8.3	6.6	5.2	3.3	3.0
16	6.2	4.7	6.0				20	8.0	6.6	5.2	2.5	3.0
17	5.8	6.2				11	24	7.6	7.6	5.2	2.5	3.0
18	8.3	7.6				11	32	9.0	8.0	5.2	2.4	3.0
19	7.6	5.8				11	26	9.0	6.0	6.2	1.7	2.7
20	7.2	3.5		5.5	7.5	9.9	20	7.2	8.0	6.2	1.7	3.0
21	9.4	4.7				8.3	16	6.9	6.9	5.2	2.4	3.0
22	8.3	4.1				9.4	14	7.2	6.2	4.4	1.8	3.3
23	9.0					13	9.9	7.2	5.5	5.5	1.7	3.5
24	6.9					10	9.4	6.6	4.9	4.4	1.7	3.8
25	7.2		5.0			11	11	5.2	4.9	4.9	1.5	3.5
26	5.8	8.0				8.6	9.9	5.8	4.7	4.9	1.7	3.5
27	5.2					9.0	0.0	12	4.9	4.9	2.0	3.3
28	4.9			6.0		9.9	9.9	11	4.9	4.7	2.5	3.3
29	4.7					11	9.9	12	4.1	3.8	3.3	3.3
30	3.8					12	9.9	12	3.3	2.7	3.5	3.0
31	3.3					9.9		13		3.0	3.5	

151.5 174.2 169.5 166.0 193.5 297.0 642.3 247.6 207.0 126.2 84.8 84.0

MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET	MEAN ACRE- FEET
4.89	5.81	5.47	5.35	6.91	9.58	21.4	7.99	6.90	4.07	2.74	2.80	2.80
300	346	336	328	384	589	1,270	491	411	250	168	187	187

U. S. GOVERNMENT PRINTING OFFICE 16-50000-1

YEAR  
TOTAL  
MEAN  
ACRE-  
FEET

6.97  
5,040  
Plate No. 34

Daily discharge, in second-feet, of

## Salt Lake Fork near Border, Wyoming

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	71	74		60		60	244	393	317	145	101
2	86	74	70				60	214	367	305	145	106
3	86	74	70				60	219	359	294	142	110
4	86	74	70			55	63	251	355	279	142	112
5	86	72	70				70	332	367	268	148	106
6	85	76	70		55		66	393	389	261	148	103
7	85	75	72			55	65	439	384	251	142	101
8	83	70	70			56	65	463	359	244	140	101
9	83	72	70			61	65	489	348	234	133	99
10	83	74	70			62	70	565	355	230	131	97
11	83	72	70			62	73	592	332	220	133	97
12	83	72	70			61	76	592	320	214	129	103
13	81	74	70			60	80	598	320	204	124	99
14	81	74	70	60		60	84	604	324	201	122	97
15	83	72	72				92	609	332	204	120	93
16	83	72	72				92	609	351	198	118	93
17	81	74	70				108	662	344	204	116	92
18	80	70	70				135	662	332	220	116	92
19	78	68	70				135	692	332	223	116	93
20	78	65	72		65		135	722	344	207	116	92
21	80	66	72				145	764	371	198	127	92
22	78	66	70				163	782	384	191	124	92
23	78	68	70			60	204	680	393	185	116	92
24	80	72	70				244	614	401	180	112	93
25	80	74	70				272	582	393	174	110	92
26	78	75	60				301	565	397	168	108	90
27	76	76	60				301	516	434	168	106	88
28	76	74	70				351	479	393	163	104	88
29	75	72	70	61			305	444	351	158	103	88
30	74	70	70	61			286	424	328	155	101	88
31	74			63				397		150	101	
	2,509	2,161	2,090	1,865	1,715	1,827	4,226	16,198	10,852	6,668	3,838	2,890

Month	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Mean	80.9	72.0	67.4	60.2	61.2	58.9	64.1	523	362	215	124	96.3
Acres-Foot	4,980	4,290	4,150	3,700	3,400	3,620	8,380	32,130	21,520	13,230	7,610	5,730

U. S. GOVERNMENT PRINTING OFFICE: 1954 O-5110

YEAR  
1954  
MEAN  
ACRES-FOOT

Plate No. 35

Daily discharge, in second-feet, of

Thomas Fork near Wyoming-Idaho State Line

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	15	13	12	12	14	128	69	30	15	8.4
2	11	15	13	13	12	12	14	115	64	29	14	8.4
3	12	16	12	13	12	11	15	111	61	28	14	8.4
4	12	16	12	13	12	12	20	118	56	27	14	8.1
5	12	17	12	13	12	12	26	145	54	28	13	8.6
6	12	20	14	12	12	12	31	168	57	27	14	8.6
7	12	17	14	12	12	12	26	177	60	26	13	8.4
8	12	15	13	12	12	12	26	173	57	25	12	8.4
9	12	15	14	12	12	15	26	171	53	25	12	8.6
10	12	15	14	12	12	21	26	177	62	25	12	8.4
11	12	16	11	13	13	20	29	162	55	24	12	8.6
12	12	15	14	12	13	17	36	148	49	24	12	8.4
13	12	15	13	12	14	15	45	136	46	23	13	8.6
14	12	16	13	13	14	14	50	126	47	22	12	8.4
15	13	16	14	13	14	13	60	118	46	23	11	8.6
16	14	16	14	14	14	14	61	110	47	22	11	8.6
17	13	16	13	14	14	15	81	105	46	21	11	8.6
18	13	16	13	13	14	13	99	102	41	21	11	8.4
19	12	14	14	13	13	19	90	96	37	20	11	8.4
20	12	11	15	12	14	17	87	90	37	20	11	8.6
21	13	12	14	12	14	17	88	102	35	19	12	8.6
22	14	12	12	12	13	17	93	107	35	19	11	8.6
23	14	15	12	12	13	16	107	90	34	19	10	9.2
24	16	15	12	12	14	14	119	84	34	18	9.9	10
25	16	14	12	12	13	14	138	80	33	18	9.2	9.6
26	16	15	12	12	13	13	146	80	34	18	9.6	9.2
27	16	18	12	12	12	14	140	78	53	17	9.9	10
28	15	17	13	14	12	14	164	74	46	16	9.6	9.2
29	14	15	13	13		14	152	69	36	15	8.9	9.0
30	14	14	13	14		14	145	72	33	15	8.6	9.2
31	15		13	12		13		69		15	8.4	
	407	459	405	391	361	448	2,154	9,581	1,417	679	355.1	262.1

MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.	MEAN DAILY DISCH.
13.1	15.3	13.1	12.6	12.9	14.5	71.8	47.2	21.9	11.5	8.74		
807	910	803	776	716	889	4,270	2,810	1,350	704	520		

Daily discharge, in second-feet, of

## Dingle Inlet Canal near Dingle, Idaho

for the year ending September 30, 1934 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	8	7	4	4	6	6	4	1	1	12	12
2	1	8	6	4	4	6	6	3	2	1	12	5
3	11	8	6	4	4	6	6	3	1	1	11	1
4	11	7	6	4	4	6	6	2	1	1	11	1
5	12	8	7	4	4	6	6	2	1	1	12	1
6	12	8	8	4	5	6	6	4	1	1	12	1
7	12	8	9	4	5	6	6	4	1	1	13	1
8	14	7	9	4	5	6	6	4	1	1	13	1
9	12	7	9	4	5	6	6	5	1	1	14	2
10	14	8	9	3	5	7	6	2	1	1	14	2
11	15	8	9	3	5	7	6	0	1	1	7	2
12	15	8	9	3	5	7	5	0	1	1	2	2
13	17	8	9	3	5	8	5	0	1	1	6	1
14	16	8	9	3	5	8	5	0	1	0	14	1
15	15	8	9	3	5	9	5	0	1	0	13	1
16	15	9	9	3	5	9	4	0	1	0	10	1
17	14	9	9	4	5	9	4	3	1	2	9	1
18	14	8	9	5	5	9	5	9	1	4	8	1
19	14	8	9	6	5	8	4	10	1	3	7	1
20	13	8	9	6	4	8	4	4	1	1	6	1
21	11	8	9	6	4	8	4	2	1	1	6	11
22	11	7	9	6	4	8	4	1	1	2	5	19
23	11	8	9	5	4	7	4	1	1	2	4	19
24	10	8	9	5	4	7	4	1	1	2	4	18
25	10	8	9	5	4	7	5	1	1	2	2	13
26	10	9	4	5	5	7	5	1	1	2	2	14
27	10	9	4	5	5	7	5	1	1	2	1	4
28	9	8	4	5	6	6	4	1	1	1	1	2
29	9	8	4	5	6	6	4	1	1	1	11	2
30	8	8	4	4	6	6	4	1	1	10	14	17
31	8	4	4	4	6	6	4	1	1	13	12	

356

240

235

133

130

218

151

71

31

61

268

158

MEAN  
ANNUAL  
PEAK

11.5

476

466

264

258

432

300

141

61

121

532

313

Max. discharge, 31 cfs Sept. 30

YEAR  
1934

MEAN 5.62

ANNUAL  
PEAK 4,070

Plate No. 37

Daily discharge, in second-feet, of Rainbow Inlet canal near Dingle, Idahofor the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	144	169	144	182	204	372	426	11	16	51	13
2	50	148	160	138	191	210	372	410	12	15	44	14
3	55	148	132	142	188	217	378	380	14	15	51	15
4	76	150	105	144	177	213	388	346	14	15	55	16
5	100	144	113	148	184	210	396	326	13	15	44	15
6	100	150	146	152	180	202	429	313	12	15	55	14
7	89	165	171	154	180	177	472	346	12	27	63	13
8	72	167	162	160	169	182	490	375	12	41	67	12
9	76	182	150	167	165	215	496	394	12	39	67	12
10	71	193	150	168	160	245	526	341	12	39	58	11
11	69	186	141	169	156	274	532	264	12	38	51	11
12	67	175	132	154	165	330	514	262	12	34	48	12
13	69	152	148	154	173	318	508	254	12	36	44	12
14	69	148	152	144	175	326	517	231	12	38	51	12
15	80	152	167	152	186	378	493	180	12	46	50	11
16	67	156	171	156	191	399	452	156	13	63	43	11
17	85	146	158	160	184	415	418	148	13	65	41	11
18	89	140	150	165	184	438	369	132	13	51	27	11
19	94	138	160	162	215	460	367	109	14	51	26	11
20	94	126	175	160	169	429	383	89	14	48	19	11
21	104	111	169	158	177	429	386	48	14	36	15	12
22	107	113	175	156	191	432	391	19	13	27	16	12
23	109	162	155	160	195	438	386	31	12	24	17	12
24	113	165	155	158	222	438	388	46	12	19	15	12
25	121	165	130	155	222	421	410	46	13	14	13	12
26	136	171	120	152	217	413	440	26	13	26	12	12
27	142	169	124	150	247	407	460	27	14	26	11	12
28	148	173	132	152	226	396	469	22	14	36	12	12
29	146	175	136	150		383	452	22	15	50	12	12
30	148	177	148	158		372	460	16	16	60	13	13
31	144		145	173		375		16		63	13	
	2,963	4,691	4,601	4,815	5,271	10,346	13,114	5,801	387	1,088	1,104	369

Mean Discharge, cfs.	95.6	156	148	155	188	334	437	187	12.9	35.1	35.6	12.3
Acres- Feet	5,880	9,300	9,130	9,550	10,450	20,520	26,010	11,510	768	2,160	2,190	732

U. S. GOVERNMENT PRINTING OFFICE 16 60004 1

YEAR OR  
PERIOD

MEAN  
ACRE-FOOT

149

108,200

Plate No. 38

Daily discharge, in second-feet, of

Montreller Creek at Irrigators Weir near Montpeller, Idahofor the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.9	8.9	7.1	7.4	7.1	8.3	32	27	15	8.6	7.8
2	7.7	9.1	8.5	7.1	7.2	7.4	8.0	29	24	14	8.3	8.0
3	8.3	9.1	7.7	7.1	7.0	7.7	8.0	27	23	14	8.3	8.5
4	8.8	9.4	7.8	7.0	7.0	7.4	8.6	28	23	13	8.3	8.5
5	8.9	10	7.7	7.1	7.1	7.6	10	29	22	13	8.3	8.2
6	8.3	12	8.0	7.0	7.2	7.6	12	31	24	13	8.3	7.7
7	8.3	11	8.0	7.1	7.0	7.4	12	30	25	14	8.3	7.6
8	8.2	10	7.7	7.0	6.6	7.4	11	31	24	14	8.3	7.6
9	8.3	10	8.0	7.0	6.5	10	12	31	22	14	7.6	7.6
10	8.3	9.9	7.2	6.5	7.4	11	13	31	29	14	7.6	7.6
11	8.5	11	6.2	7.0	7.4	10	13	32	26	13	8.0	7.4
12	8.5	10	7.7	7.0	7.1	8.9	15	31	23	13	8.3	7.7
13	8.8	9.9	7.7	6.8	7.4	8.5	17	31	22	13	9.4	8.0
14	8.6	10	7.4	7.1	7.6	8.5	19	30	22	13	8.6	8.0
15	8.9	9.6	7.6	7.6	7.2	8.2	21	28	21	13	8.3	7.8
16	9.3	9.1	7.4	7.4	7.1	8.5	22	28	22	12	8.0	7.7
17	9.1	9.6	7.2	7.4	7.1	8.8	26	28	21	12	8.0	7.7
18	8.8	9.3	7.7	7.2	7.2	8.5	33	28	20	12	8.0	7.4
19	8.9	8.8	7.7	7.2	7.0	8.2	33	27	19	14	7.6	7.4
20	8.9	7.8	8.0	6.5	7.2	8.3	31	27	18	13	7.6	7.6
21	8.9	8.2	7.4	7.0	7.2	8.3	33	34	18	12	8.3	7.8
22	9.1	8.3	6.2	7.6	7.1	8.3	34	37	17	11	8.6	7.8
23	9.3	9.1	5.9	7.6	7.2	8.3	35	31	17	11	8.0	7.7
24	9.9	8.9	5.7	7.8	7.2	8.4	37	28	17	10	6.8	8.0
25	9.9	8.6	5.9	7.6	7.4	8.3	29	28	16	10	7.2	7.1
26	9.4	9.4	5.6	6.8	7.7	8.0	38	28	16	10	7.2	7.4
27	9.3	10	6.4	7.4	7.2	8.3	36	28	19	11	7.4	7.6
28	9.1	9.6	7.1	7.6	7.2	8.6	39	26	19	10	7.4	7.7
29	9.1	9.1	7.4	7.6	7.2	8.6	37	26	16	9.9	7.6	7.6
30	9.1	8.8	7.2	7.7	7.2	8.3	35	26	16	9.4	7.6	7.2
31	9.1		7.1	7.6		8.0		26		9.0	8.0	
	273.2	284.5	226.0	223.5	200.9	258.4	695.9	907	628	379.3	247.8	232.0

Mean	8.81	9.48	7.29	7.21	7.18	8.34	23.2	29.3	20.9	12.2	7.99	7.73
Acres-Feet	542	564	448	443	398	513	1,380	1,800	1,250	752	492	460

U. S. GOVERNMENT PRINTING OFFICE 16-70901-1

Year  
in  
Fusion

Mean  
Age-Feet

12.5  
9,040

Plate No. 39

## contents in thousands of acre-feet

Daily discharge in second-feet of

Bear Lake at Lipton near St. Charles, Idaho

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	864.8	856.0	858.7	862.1	868.9	892.7	926.8	961.0	940.5	898.2	825.7	744.0
2	864.8	856.0	859.4	862.1	869.6	893.4	927.5	961.7	937.8	895.4	823.7	741.3
3	864.1	856.0	859.4	862.1	869.6	894.0	928.2	962.4	935.7	892.7	821.0	738.6
4	864.1	856.0	859.4	862.1	870.2	894.7	928.9	962.4	933.7	890.0	819.0	735.9
5	863.4	856.6	859.4	862.1	870.9	895.4	930.3	962.4	932.3	887.9	817.0	733.2
6	863.4	857.3	859.4	862.8	870.9	896.1	931.6	963.1	930.3	885.9	815.0	730.6
7	862.8	857.3	860.0	862.8	871.6	896.8	932.3	963.8	928.9	883.2	812.3	728.0
8	862.1	857.3	860.0	862.8	871.6	897.5	933.0	963.8	926.8	883.1	809.8	725.3
9	862.1	857.3	860.0	862.8	872.3	899.5	933.7	963.8	925.5	879.0	807.6	722.6
10	861.4	858.0	860.0	862.8	872.3	900.9	935.0	963.8	925.5	878.4	805.6	719.9
11	861.4	858.0	860.0	862.8	873.0	902.3	936.4	964.5	924.8	876.4	803.6	717.3
12	860.7	858.0	860.0	862.8	873.6	903.7	937.1	964.5	924.8	874.3	800.9	716.0
13	860.7	858.0	860.0	862.8	874.3	904.3	938.4	963.8	924.8	872.3	798.9	714.7
14	860.0	858.0	860.0	862.8	875.7	905.0	939.8	963.8	924.8	870.2	796.2	713.3
15	860.0	858.0	860.0	863.4	877.0	905.7	941.2	963.8	924.1	867.5	793.5	712.0
16	860.0	858.0	860.0	863.4	879.1	906.4	942.5	963.1	922.0	865.5	790.8	710.6
17	860.0	858.0	860.7	864.1	881.1	907.1	945.9	962.4	920.7	862.8	788.2	709.3
18	859.4	858.0	860.7	864.1	883.2	908.4	945.3	961.7	920.0	860.0	784.8	708.0
19	858.7	858.0	860.7	864.1	884.5	909.1	946.6	961.0	918.6	857.3	781.5	706.6
20	858.0	858.0	860.7	864.1	885.9	909.8	948.0	960.4	917.9	854.6	778.8	704.7
21	857.3	858.0	860.7	864.1	886.6	910.5	949.4	959.7	917.3	851.9	776.1	703.3
22	856.6	858.0	860.7	864.1	887.2	911.8	950.8	961.0	915.9	848.2	773.4	702.0
23	856.0	858.0	860.7	864.8	887.9	912.5	952.1	960.4	914.5	846.5	770.8	702.0
24	856.0	858.0	861.4	865.5	889.3	913.9	952.8	959.0	913.2	843.8	768.7	702.0
25	855.3	858.0	861.4	866.2	890.0	915.2	953.5	956.9	911.8	841.1	766.1	702.0
26	855.3	858.7	861.4	866.2	890.6	916.6	954.9	954.9	909.8	838.4	763.4	702.0
27	855.3	858.7	861.4	866.8	891.3	919.3	955.5	952.8	908.4	836.4	760.7	702.0
28	855.3	858.7	861.4	867.5	892.0	921.3	956.9	950.1	906.4	834.4	757.4	702.0
29	856.0	858.7	861.4	868.2		923.4	958.3	947.3	903.7	832.4	754.0	702.0
30	856.0	858.7	861.4	868.2		924.8	959.0	944.6	900.9	830.4	750.6	702.0
31	856.0		861.4	868.9		925.5		942.5		827.7	747.3	

Change in contents (1,000's of acre-ft.) during month

MEAN ACRE- FEET	-10.2	-2.7	-2.7	-7.5	-23.1	-33.5	-33.5	-16.5	-41.6	-73.2	-80.4	-45.3
Equivalent discharge in cfs	166	145	144	122	116	115	1563	268	699	1,190	1,308	761
Max. contents 964,500 acre-ft May 11, 12												

MEAN -164.2  
ACRE-FOOT -227

Plate No. 40

Daily discharge, in acre-feet, of

Bear Lake outlet canal near Paris, Idaho

for the year ending September 30, 1954

Dry	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	2	2	2	1	1	1	1	653	1,110	843	868
2	24	2	2	2	1	1	1	1	755	1,120	849	868
3	24	2	2	2	1	1	1	1	640	1,110	852	893
4	24	2	2	2	1	1	1	1	526	1,100	824	912
5	24	2	2	2	1	1	1	1	619	1,100	741	902
6	24	2	2	1	1	1	1	1	743	1,140	685	902
7	24	2	2	1	1	1	1	1	767	1,270	773	899
8	24	2	2	1	1	1	1	1	625	1,300	758	905
9	24	2	2	1	1	1	1	1	366	1,230	791	880
10	24	2	2	1	1	1	1	177	324	1,160	871	849
11	24	2	2	1	1	1	1	581	159	1,130	893	650
12	24	3	2	1	1	1	1	573	15	1,090	944	454
13	24	3	2	1	1	1	1	589	15	1,150	874	401
14	24	3	2	1	1	1	1	649	258	1,220	773	304
15	24	3	2	1	1	1	1	737	545	1,200	791	245
16	3	3	2	1	1	1	1	767	563	1,130	840	343
17	3	3	2	1	1	1	1	788	515	1,160	915	310
18	3	3	2	1	1	1	1	900	431	1,220	908	278
19	3	3	2	1	1	1	1	1,050	424	1,230	951	254
20	2	3	2	1	1	1	1	1,100	415	1,220	940	235
21	2	3	2	1	1	1	1	1,110	525	1,130	1,040	209
22	2	3	2	1	1	1	1	945	734	1,010	1,040	214
23	2	3	2	1	1	1	1	828	803	963	971	137
24	2	3	2	1	1	1	1	1,060	794	918	896	28
25	2	2	2	1	1	1	1	1,090	846	912	877	24
26	2	2	2	1	1	1	1	945	963	915	880	24
27	2	2	2	1	1	1	1	663	1,010	871	856	22
28	2	2	2	1	1	1	1	516	1,000	797	890	24
29	2	2	2	1	1	1	1	468	998	688	883	23
30	2	2	2	1	1	1	1	379	1,040	718	871	110
31	2	2	2	1	1	1	1	483	1,040	846	871	
385	73	62	36	28	31	30	30	16,407	18,071	33,158	26,871	13,167

MEAN	12.4	2.4	2.0	1.2	1.0	1.0	1.0	1.0	529	602	1,070	439
ACQ-	764	145	123	71	56	61	60	32,540	35,840	65,770	53,300	26,120
DISCH.												

Max. Disch. 1,340 cfs July 7, 1954

MEAN  
OR  
Y-MEAN  
ACQ-  
DISCH.297  
214,800

Plate No. 41

Daily discharges, in second-feet, of Georgetown Creek Near Georgetown, Idaho for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	28	26	25	24	24	24	25	33	34	31	29
2	31	28	26	25	24	24	24	25	33	31	31	29
3	31	28	26	25	24	24	24	25	33	32	31	29
4	31	28	26	25	24	24	24	25	32	32	31	29
5	31	28	26	25	24	24	24	25	33	32	31	29
6	30	28	26	25	24	24	24	26	33	32	31	29
7	30	28	26	25	24	24	24	26	33	31	31	29
8	30	27	26	25	24	24	24	26	33	31	31	28
9	30	27	26	25	24	25	24	27	33	31	30	28
10	30	27	26	25	24	25	24	28	34	31	30	28
11	30	27	26	25	24	25	24	30	33	31	30	28
12	30	27	26	25	24	24	25	31	32	31	30	29
13	30	27	26	25	24	24	25	31	32	31	29	28
14	30	27	26	25	24	24	25	31	32	31	29	28
15	30	27	26	25	24	24	25	31	32	31	29	28
16	29	27	26	25	24	24	25	32	32	31	29	28
17	29	27	25	25	24	24	25	32	32	31	29	28
18	29	27	25	25	24	24	25	32	31	31	30	28
19	29	27	25	25	24	24	25	32	31	31	30	28
20	28	27	25	25	24	24	25	32	31	31	30	28
21	28	27	25	25	24	24	25	35	31	31	30	28
22	28	27	25	25	24	24	25	35	31	31	29	28
23	28	27	25	25	24	24	25	34	31	31	29	28
24	28	26	25	25	24	24	25	34	31	31	29	28
25	28	26	25	25	24	24	25	34	32	31	29	28
26	28	26	25	24	24	24	25	35	32	31	29	28
27	28	26	25	24	24	24	25	34	32	31	29	28
28	28	26	25	24	24	25	25	34	32	31	29	28
29	28	26	25	24	24	25	25	34	32	31	29	28
30	28	26	25	24	24	24	25	34	31	31	29	28
31	28	26	25	24	24	24	25	33	31	31	29	28

907 810 791 769 672 750 743 948 963 965 923 848

Mean	29.3	27.0	25.5	24.8	24.0	24.2	24.8	30.6	32.1	31.1	29.8	28.3
Area-	1,800	1,610	1,570	1,530	1,330	1,490	1,470	1,880	1,910	1,910	1,830	1,680

U. S. GOVERNMENT PRINTING OFFICE 16-40091-1

YEAR  
OR  
PERIOD

MB.

27.6

ACRES-Feet

20,010

Plate No. 42

Daily discharge, in second-feet, of Cottonwood Creek near Cleveland, Idaho for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	6.5	9.5	8.5	10	12	16	52	10	5.0	2.3	1.3
2	1.6	5.8	8.8	9.0	9.5	11	16	3	8.8	4.7	2.4	1.7
3	1.7	5.2	8.0	9.5		10	20	37	7.8	4.5	2.4	2.2
4	1.8	5.4	8.4	10		10	22	32	6.9	4.3	2.9	2.2
5	1.8	5.7	7.2	9.9		10	42	34	6.9	3.4	3.6	2.0
6	1.8	6.6	7.5	9.9	9.0	11	51	38	9.9	3.4	5.0	1.4
7	2.4	6.3	7.8	9.9		12	44	36	10	3.2	4.1	1.4
8	2.3	5.7	6.3	9.9		15	43	30	8.4	2.9	3.4	1.3
9	2.2	5.7	6.9	9.9		32	46	29	8.1	2.8	3.2	1.2
10	2.2	5.7	8.0	9.5		50	47	28	9.5	2.9	2.9	1.4
11	2.6	6.0	7.0	9.0	10	40	52	25	11	2.6	3.0	1.3
12	3.0	6.0	5.7	9.0	11	28	65	22	8.1	2.3	3.2	2.2
13	3.0	6.0	6.3	9.5	11	24	70	20	6.6	1.8	3.2	3.0
14	3.0	6.0	6.9	10	11	24	80	15	7.8	1.4	3.2	3.0
15	3.0	6.3	8.8	10	11	23	82	13	7.2	1.8	2.9	2.9
16	3.4	6.3	10	11	11	20	82	12	12	2.3	2.6	2.8
17	3.4	8.1	10	11	11	20	94	10	12	2.3	2.2	2.8
18	4.7	8.4	11	11	11	18	111	8.4	9.9	2.6	2.2	2.9
19	5.0	7.2	12	11	10	18	94	6.0	8.8	3.0	1.6	3.0
20	5.0	6.0	12	11	10	18	90	5.7	8.4	3.0	1.7	3.0
21	5.7	6.6	11	10	11	18	78	8.8	7.5	3.0	1.8	2.9
22	6.3	6.6	10	9.9	11	17	77	16	5.4	2.6	2.2	2.8
23	6.0	8.8	9.0	9.9	11	18	85	9.9	5.0	2.3	1.7	3.9
24	7.2	9.5	9.0	10	11	18	90	6.0	4.7	2.0	1.4	5.4
25	7.8	9.5	8.0	10	12	15	90	5.2	4.5	1.7	1.5	4.3
26	7.8	9.9	8.5	9.0	11	13	81	5.0	4.5	1.7	1.3	3.9
27	7.8	9.9	8.4	9.5	11	16	73	6.3	7.2	2.8	1.3	3.6
28	7.5	10	8.5	9.9	14	18	100	6.0	8.4	2.9	1.5	3.4
29	7.2	9.1	9.1	9.9		10	76	6.6	6.0	2.4	1.4	3.4
30	7.2	8.8	9.0	11		14	63	8.8	5.4	2.2	1.3	3.2
31	7.2		8.5	11		13		9.1		2.2	1.0	
	133.1	213.6	267.1	308.6	290.5	584	1,980	583.8	236.7	86.0	74.4	79.8

MEAN ANNUAL FLOW	4.29	7.12	8.62	9.95	10.4	18.8	66.0	18.8	7.89	2.77	2.40	2.66
FEET	264	424	530	612	576	1,160	3,920	1,160	469	171	148	158

U. S. GOVERNMENT PRINTING OFFICE: 1946

YEAR  
1954  
MEAN  
ANNUAL  
FLOW  
9.600

Plate No. 43

Daily discharge, in second-feet, of Little Bear River near Paradise, Utah for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	50	55	53	56	52	75	137	30	19	15	14
2	18	52	48	53	53	50	90	133	29	21	14	15
3	18	55	44	53	50	48	133	114	28	19	14	13
4	18	56	48	53	49	48	173	101	26	19	14	13
5	18	56	49	53	49	48	224	104	28	21	14	13
6	16	60	47	53	50	48	244	114	29	20	13	12
7	16	50	50	53	48	52	170	127	30	19	13	12
8	18	49	48	55	48	70	163	122	30	18	13	12
9	18	49	49	53	48	198	173	122	29	16	13	12
10	16	49	57	52	50	190	166	119	29	17	14	12
11	13	49	52	52	52	156	159	114	28	16	15	12
12	16	48	55	55	52	106	184	106	28	16	15	12
13	18	49	56	53	62	86	202	101	29	15	13	12
14	18	48	55	53	84	86	285	95	29	16	12	12
15	18	50	56	53	66	82	248	86	30	16	12	12
16	18	50	56	55	59	86	274	80	30	15	11	12
17	19	53	56	55	56	86	256	77	29	14	11	12
18	21	52	55	53	57	84	318	68	29	16	13	13
19	22	52	56	56	52	78	209	60	29	16	15	13
20	27	49	59	55	52	77	268	53	26	18	14	12
21	44	49	59	52	52	80	236	55	25	17	16	12
22	45	52	53	55	53	75	221	66	23	16	15	11
23	48	56	49	56	52	78	180	53	24	16	13	18
24	53	56	48	72	56	80	153	45	25	16	12	25
25	52	55	48	59	62	82	159	39	22	16	13	15
26	50	55	48	52	65	78	159	33	23	15	13	13
27	50	55	52	59	59	80	153	31	26	13	15	16
28	49	53	49	62	52	82	170	29	25	12	13	16
29	49	53	53	59	52	86	149	31	22	12	13	16
30	47	52	52	57	57	87	143	32	21	12	14	16
31	44	52	52	57	57	73	31	31	21	14	13	13

895 1,562 1,614 1,711 1,544 2,612 5,787 2,478 811 506 418 408

MEAN ACRE- FEET	28.9	52.1	52.1	55.2	55.1	84.3	193	79.9	27.0	16.3	13.5	13.6
FEET	1,780	3,107	3,200	3,390	3,060	5,180	11,480	4,920	1,610	1,000	829	809

U. S. GOVERNMENT PRINTING OFFICE 16 70904-1

YEAR 55.7

MEAN

ACRE-FOOT

10,360

Plate No. 44

### Elevation in Feet, and Contents in

~~Diurnal discharges, in ECTE, of~~

Hyrum Reservoir near Hyrum, Utah

File No.

for the year ending September 30, 1954.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								15,280	13,360	9,960	5,610	2,510
2									13,220	9,840	5,500	2,450
3									13,130	9,750	5,400	2,340
4									12,900	9,410	5,360	2,280
5									12,800	9,200	5,320	2,250
6									12,670	9,040	5,220	2,170
7									12,530	8,870	5,110	2,140
8									12,390	8,750	4,940	2,110
9									12,350	8,500	4,800	2,050
10	3,840	4,600	7,700	10,180	10,440	10,790	14,290		12,260	8,380	4,700	2,000
11									12,170	8,300	4,460	1,920
12									12,080	8,100	4,360	1,890
13									12,030	7,940	4,290	1,830
14									11,940	7,700	4,230	1,810
15									11,900	7,580	4,100	1,750
16									11,810	7,460	3,930	1,720
17								15,280	11,760	7,340	3,800	1,670
18								15,230	11,720	7,070	3,740	1,640
19								15,190	11,580	6,990	3,640	1,640
20	3,110	5,430	8,950	10,220	10,520	12,670	15,090	15,090	11,540	6,880	3,480	1,640
21								15,040	11,490	6,680	3,420	1,640
22								14,810	11,310	6,610	3,330	1,620
23								14,580	11,220	6,530	3,230	1,540
24								14,430	10,960	6,380	3,110	1,510
25								14,290	10,700	6,310	2,990	1,510
26								14,100	10,650	6,270	2,930	1,460
27								13,870		6,120	2,870	1,460
28					10,570			13,780		6,010	2,720	1,430
29								13,640		5,900	2,690	1,430
30								13,540		5,860	2,660	1,430
31	3,740	6,720	9,790	10,440		13,780	15,280	13,450	10,090	5,760	2,570	

Change in Contents from last of month to last of month.

[illegible]

14. ☐ GOVERNMENT REGULATION

## Change in Contents

УВАЖАЮ

MEM. —  
ACQU. FRY

-1.530  
-2.1

Plate No. 45

Daily discharge, in second-feet, of \_\_\_\_\_ Little Bear River near Hyrum, Utah

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	0.5	2.3	4.0	60	71	61	254	2.2	2.0	1.3	0.9
2	1.1	.5	2.3	12	59	68	60	247	2.2	2.0	2.0	1.1
3	1.0	.5	2.3	23	58	66	94	102	2.3	1.8	2.0	1.8
4	1.1	.6	2.3	31	57	64	117	28	1.9	2.2	1.9	1.8
5	1.1	.6	2.2	38	56	62	141	8.1	1.9	3.0	2.3	1.8
6	1.1	.9	2.2	41	55	61	163	8.1	2.3	2.5	1.8	1.8
7	1.3	.8	2.3	45	54	61	193	9.8	2.2	2.0	1.3	1.8
8	1.0	.6	2.2	47	54	64	226	43	1.6	1.9	.9	1.8
9	.9	.6	2.2	49	54	81	170	60	1.6	1.6	.9	1.4
10	.9	.6	2.3	48	53	44	114	60	1.6	1.5	.9	1.1
11	.9	.6	2.3	48	54	5.9	165	97	1.6	1.5	.9	.9
12	.8	.6	2.3	48	54	5.7	147	74	1.6	1.5	.9	1.0
13	.7	.6	2.3	50	56	5.5	189	35	1.6	1.5	.9	1.0
14	.7	.8	2.3	50	67	5.3	174	9.0	1.6	1.5	.7	.9
15	.8	.9	2.3	50	71	5.0	191	8.1	2.2	1.4	.7	.9
16	.9	.9	2.5	50	70	4.8	252	7.3	3.0	1.4	.7	.8
17	.9	1.0	2.5	52	69	4.6	288	6.4	3.8	1.6	.8	.7
18	.8	1.3	2.5	53	70	4.8	285	5.9	3.7	1.9	.9	.7
19	.7	1.3	2.5	55	68	4.8	285	5.5	3.0	2.0	1.3	.7
20	.6	1.1	2.6	54	66	4.8	285	5.7	2.6	1.5	1.6	.7
21	.6	1.5	2.6	40	65	4.8	285	5.5	2.5	2.0	1.5	.7
22	.6	2.0	2.6	31	65	4.8	280	5.5	2.6	1.5	1.6	1.3
23	.6	2.0	2.5	38	65	5.0	276	4.2	2.6	1.3	1.1	2.5
24	.6	2.0	2.5	53	65	5.0	123	3.5	2.8	1.0	.9	1.6
25	.6	2.0	2.5	64	67	5.0	45	3.0	3.2	1.0	.9	1.5
26	.6	2.0	2.5	61	70	23	45	2.6	3.2	1.1	.8	1.1
27	.6	2.2	2.6	61	45	65	100	2.8	3.0	1.0	.8	.9
28	.6	2.2	2.6	61	76	65	240	2.5	3.0	1.0	.7	.9
29	.6	2.0	2.6	64		65	264	2.2	2.8	1.0	.7	.9
30	.5	2.3	2.6	62		65	256	2.8	2.3	.9	.7	.9
31	.5		2.6	62		61		2.0		.9	.7	

	25.0	35.6	74.9	1,445.0	1,723	1,061.8	5,514	1,110.5	72.5	49.0	35.1	35.9
GRAND TOTAL	50	71	149	2,870	3,420	2,110	10,940	2,200	144	97	70	71
	.81	1.19	2.42	46.6	61.1	34.9	184	3.58	2.42	1.58	1.13	1.20

U. S. GOVERNMENT PRINTING OFFICE: 1955 O - 355-111

30.6

Plate No. 46

Daily discharge, in second-feet, of

Logan River above State Dam near Logan, Utah

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	31	11	13	12	12	11	31	44	18	17	17
2	19	31	11	12	12	12	11	19	36	18	16	17
3	19	36	11	12	12	12	15	15	41	18	16	18
4	19	40	12	12	12	12	26	14	42	17	16	17
5	19	32	12	12	12	16	40	18	55	17	17	18
6	18	38	12	12	12	17	42	69	62	17	17	17
7	18	35	12	11	12	17	15	114	66	17	16	17
8	18	31	12	11	12	17	14	136	57	17	16	17
9	18	25	11	12	12	26	16	174	62	17	16	17
10	18	19	11	11	12	48	14	223	60	17	16	17
11	18	19	12	11	12	36	14	223	52	17	16	18
12	19	20	12	11	12	25	14	236	46	18	16	18
13	19	22	12	11	13	15	11	242	41	18	16	18
14	18	22	12	12	12	16	188	248	30	18	16	18
15	18	20	13	12	12	16	200	239	27	18	16	18
16	18	21	12	12	12	18	91	242	36	18	16	18
17	17	20	12	11	12	18	28	252	40	18	16	21
18	17	17	12	11	12	18	48	245	32	18	16	23
19	26	17	12	12	12	14	32	245	27	21	16	18
20	35	16	12	12	12	12	21	242	31	19	16	18
21	34	14	12	12	12	14	15	275	47	18	16	18
22	32	11	12	12	12	14	22	319	47	18	17	19
23	38	13	12	12	12	16	18	278	44	18	17	19
24	42	11	12	12	12	17	22	205	40	18	16	15
25	42	11	12	12	12	17	55	194	35	18	16	14
26	38	11	12	12	12	16	73	185	32	19	16	14
27	36	11	12	12	12	17	67	153	34	18	16	14
28	36	11	12	12	12	17	96	105	30	18	17	14
29	35	11	12	12	12	15	71	81	20	20	17	14
30	46	11	12	12	12	14	48	71	18	20	17	13
31	32	12	12	12	12	13	13	50	18	18	17	17
801	627	368	365	337	547	1,438	5,143	1,234	559	505	514	

MEAN ANNUAL DISCHARGE	25.8	20.9	11.9	11.8	12.0	17.6	47.9	166	41.1	18.0	16.3	17.1
MEAN ANNUAL FLOOD	1,590	1,240	730	724	668	1,080	2,850	10,200	2,450	1,110	1,000	1,020

U. S. GOVERNMENT PRINTING OFFICE: 1954

MEAN  
ANNUAL  
DISCHARGE

34.1

MEAN  
ANNUAL  
FLOOD

24,660

Plate No. 47

Daily discharges, in second-feet, of Utah Power & Light Co.'s Tailrace near Logan, Utah, for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	114	113	93	89	86	87	193	183	178	111	85
2	113	114	110	95	87	80	91	193	182	178	110	86
3	113	114	109	96	86	80	96	193	182	175	109	89
4	111	114	110	96	90	84	98	193	182	174	109	86
5	111	114	108	97	89	80	98	198	182	170	110	83
6	111	114	107	97	86	85	129	196	180	167	110	84
7	110	114	110	97	81	91	132	194	180	162	107	84
8	110	114	105	97	89	89	128	194	178	159	105	84
9	113	114	104	97	87	95	125	193	182	154	103	81
10	113	113	108	93	90	98	128	193	182	152	103	81
11	113	114	98	91	87	98	129	193	180	148	102	80
12	113	115	103	97	86	98	137	193	180	146	104	81
13	113	115	104	95	93	95	46	193	180	141	104	81
14	113	115	99	93	97	97	0	193	180	138	103	79
15	111	115	104	98	87	96	0	193	182	137	101	78
16	110	115	105	98	89	96	106	193	183	131	99	78
17	111	115	104	97	86	97	185	191	183	131	99	77
18	111	113	103	95	90	97	191	191	182	128	97	75
19	111	109	102	95	83	95	193	191	182	132	96	74
20	111	105	104	90	85	92	191	190	182	131	96	72
21	111	113	105	86	87	95	191	190	182	127	97	72
22	110	111	96	96	86	93	180	188	180	125	98	72
23	110	114	87	96	85	92	193	185	180	122	98	85
24	109	114	86	101	86	95	194	185	182	122	95	101
25	108	110	81	95	89	90	194	186	180	119	92	98
26	108	110	86	84	91	91	194	186	182	119	90	96
27	109	113	95	90	89	92	194	185	182	119	91	95
28	109	113	90	95	85	93	193	185	182	116	90	96
29	109	111	98	93		93	193	183	182	114	89	96
30	86	111	89	92		92	193	183	180	110	87	96
31	114		86	89		87		183		111	86	

3,418 3,390 3,109 2,924 2,455 2,842 4,209 5,900 5,439 4,136 3,091 2,525

Mean Acres- Feet	110	113	100	94.3	87.7	91.7	140	190	181	140	99.7	84.2
Total	6,780	6,720	6,170	5,800	4,870	5,640	8,350	11,700	10,790	8,600	6,130	5,010

U. S. GOVERNMENT PRINTING OFFICE: 1954

Year  
ON  
DRAINAGE  
MEAN  
ACRES-FEET  
120  
86,560

Plate No. 48

Daily discharge, in second-feet, of Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 19 54

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	0.7	7.0	6.5	4.0	3.7	2.3	68	114	56	31	23
2	24	.6	6.5	6.5	4.0	3.4	2.9	60	103	51	30	23
3	23	.6	6.5	6.1	4.0	3.7	.7	44	94	49	29	23
4	23	.6	6.5	6.1	4.0	3.7	.2	41	86	47	32	24
5	23	.6	6.5	5.7	4.0	1.5	.2	69	88	44	34	24
6	22	.7	6.5	5.3	4.0	.2	.4	90	78	45	29	21
7	22	.7	6.5	5.3	4.0	.1	.6	106	72	43	29	24
8	22	.7	6.5	4.9	4.0	.1	.4	115	64	41	29	22
9	20	.7	6.1	4.9	4.3	.2	.4	119	56	42	28	22
10	19	.6	6.1	4.6	4.3	.6	.4	122	56	41	28	22
11	19	.6	5.7	4.6	4.3	.7	.4	120	54	40	29	22
12	19	.6	6.1	4.6	4.3	.6	.4	131	53	40	27	22
13	19	.7	6.1	4.6	4.6	6.1	.1	131	57	40	27	22
14	17	.7	6.1	4.6	4.6	6.1	0	128	64	40	27	22
15	21	.9	6.1	4.9	4.0	1.5	0	124	66	40	27	22
16	19	.9	5.7	4.9	4.0	.1	.4	119	70	40	27	22
17	18	.7	5.3	4.6	4.0	.2	.7	124	72	38	27	22
18	19	.6	4.9	4.6	4.0	.2	.6	128	73	38	26	23
19	8.3	.7	4.9	4.6	3.7	.7	20	130	76	43	26	23
20	2.3	.9	5.3	4.3	3.7	2.9	24	129	78	38	26	22
21	2.0	4.1	5.3	4.3	3.7	1.5	22	126	68	36	27	22
22	2.0	8.6	4.3	4.6	3.7	1.3	29	100	66	36	26	22
23	1.8	9.0	4.3	4.9	3.4	.2	42	75	66	36	25	17
24	1.3	8.2	4.6	4.9	3.4	0	62	90	65	34	25	4.3
25	1.1	7.0	4.9	4.6	3.4	0	68	91	64	33	25	3.7
26	.9	6.5	5.7	4.3	3.7	0	80	92	64	33	24	3.4
27	.9	6.5	6.5	4.3	3.7	0	86	94	64	33	24	3.4
28	.9	6.5	6.5	4.3	3.7	0	81	108	63	32	24	3.4
29	.9	6.5	7.0	4.3	3.7	0	71	110	60	32	24	3.4
30	1.1	7.0	7.0	4.0		0	75	110	56	32	24	3.4
31	.9		6.5	4.0		.4		112		31	24	

997.4 83.7 183.5 150.7 110.5 39.7 671.1 3,206 2,115 1,224 840 539.0

MEAN	12.8	2.79	5.92	4.86	3.95	1.28	22.4	103	70.5	39.5	27.1	18.0
MEAN	788	166	364	299	219	79	1,330	6,360	4,200	2,430	1,670	1,070

combined

Daily discharge, in second-feet, of Logan River above State Dam, Utah Power & Light Co.'s Tailrace & Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 1954.

Day	O. L.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	146	131	112	105	102	100	292	341	252	159	125
2	156	146	128	114	103	95	105	272	326	247	156	126
3	155	151	126	114	102	96	112	252	317	242	154	130
4	153	155	128	114	106	100	124	248	310	238	157	127
5	153	147	126	115	105	98	138	285	325	231	161	125
6	151	153	126	114	102	102	171	355	320	229	156	125
7	150	150	128	113	97	108	148	414	318	222	152	125
8	150	146	124	113	105	106	142	445	299	217	150	123
9	151	140	121	114	103	121	141	486	300	213	147	120
10	150	133	125	109	106	147	142	538	298	210	147	120
11	150	134	116	107	103	135	143	536	286	205	147	120
12	151	136	121	113	102	124	151	560	279	204	147	121
13	151	138	122	111	111	116	157	566	278	199	147	121
14	148	138	117	110	114	119	188	569	274	196	146	119
15	150	136	123	115	103	114	200	556	275	195	144	118
16	147	137	123	115	105	114	197	554	289	189	142	118
17	146	136	121	113	102	115	214	567	295	187	142	120
18	147	131	120	111	106	115	240	564	287	184	139	121
19	145	127	119	112	99	110	245	566	285	196	138	115
20	148	122	121	106	101	107	236	561	291	188	138	112
21	147	131	122	102	103	110	228	591	297	181	140	112
22	144	131	112	113	102	108	231	607	293	179	141	113
23	150	136	103	113	100	108	253	538	290	176	140	121
24	152	133	103	118	101	112	278	480	287	174	136	120
25	151	128	98	112	104	107	317	471	279	170	133	116
26	147	128	104	100	107	107	347	463	278	171	130	113
27	146	130	114	106	105	109	347	432	280	170	131	112
28	146	130	108	111	101	110	370	398	275	166	131	113
29	145	128	117	109		108	335	374	262	166	130	113
30	133	129	108	108		106	316	364	254	162	128	112
31	147		104	105		100		345		160	127	
<b>Total</b>	<b>4,616</b>	<b>4,106</b>	<b>3,659</b>	<b>3,442</b>	<b>2,903</b>	<b>3,429</b>	<b>6,316</b>	<b>14,249</b>	<b>8,788</b>	<b>6,119</b>	<b>4,436</b>	<b>3,576</b>

Mean	149	137	118	111	104	111	211	460	293	197	143	119
Area-Feet	9,160	8,140	7,260	6,830	5,760	6,800	12,530	28,260	17,430	12,140	8,800	7,090

Daily discharge, in second-feet, of

Blacksmith Fork above U.P. &amp; L. Co.'s dam near Hyrum, Utah

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	89	86	83	79	82	89	175	111	89	81	76
2	89	89	87	83	78	81	95	158	109	89	79	77
3	90	88	85	84	78	81	104	146	107	89	79	77
4	89	88	87	84	78	81	116	140	106	89	79	77
5	89	89	85	83	79	81	134	142	102	89	81	77
6	88	94	85	8	78	81	152	148	104	89	81	75
7	88	89	88	83	78	83	130	158	104	87	81	74
8	88	88	85	83	78	88	123	160	102	87	79	74
9	88	88	85	83	78	109	127	164	102	85	79	73
10	88	88	87	82	78	125	125	166	106	85	77	73
11	88	87	82	82	79	123	127	164	102	85	77	72
12	89	87	87	83	78	118	136	158	100	84	78	73
13	89	87	85	82	81	94	154	156	100	84	78	73
14	89	87	85	82	83	89	190	150	100	83	78	73
15	89	87	85	82	81	87	199	146	100	83	77	73
16	90	87	85	81	79	90	201	142	100	82	75	72
17	90	85	84	81	79	94	231	136	100	79	76	72
18	90	87	84	81	79	89	268	134	98	84	77	71
19	90	88	84	83	78	87	252	130	96	84	77	71
20	90	85	85	81	79	87	228	129	95	83	79	71
21	90	87	85	81	79	87	208	129	95	82	76	69
22	90	88	83	81	78	87	205	134	94	82	76	66
23	90	90	79	82	78	87	201	127	92	81	77	70
24	92	88	81	85	79	89	208	121	90	81	76	72
25	90	88	79	82	79	89	217	118	90	79	72	71
26	90	87	81	79	83	88	212	118	90	79	70	68
27	90	87	82	81	81	90	199	116	89	82	71	67
28	90	87	82	83	81	90	196	114	92	81	74	67
29	90	85	83	82	82	95	181	112	92	81	72	68
30	89	85	82	81	81	95	173	112	90	81	74	69
31	89	82	82	81	81	90	111	111		81	74	
	2,770	2,629	2,607	2,547	2,216	2,837	5,181	4,314	2,958	2,599	2,380	2,161

MEAN	89.4	87.6	84.1	82.2	79.1	91.5	173	139	98.6	83.8	76.8	72.0
ACR-	5,490	5,210	5,170	5,050	4,400	5,630	10,280	8,560	5,870	5,160	4,720	4,290
FEET												

U. S. GOVERNMENT PRINTING OFFICE 16-60808-1

Year  
used  
Period

MEAN 96.4  
ACR-FEET 69,800

Plate No. 51

Daily discharge, in second-feet, of

**Hammond (East Side) Canal near Collinston, Utah**

for the year ending September 30, 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92						0	68	140	161	149	144
2	90						0	78	140	159	158	144
3	82						0	106	139	159	160	144
4	82						0	116	140	161	160	142
5	85						0	128	133	165	160	144
6	81						0	130	122	164	160	144
7	76						0	142	125	163	158	139
8	70						0	151	124	164	157	135
9	72						0	162	121	162	160	131
10	72						0	166	103	163	159	132
11	73						0	161	98	163	160	129
12	68						0	158	109	162	159	119
13	55						0	160	122	158	162	119
14	55						0	159	116	161	162	113
15	47						0	157	143	161	162	114
16	23						0	162	152	161	164	115
17	36						0	168	152	162	164	113
18	48						0	169	155	160	162	110
19	48						0	169	161	162	162	110
20	40						0	169	167	162	164	110
21	29						0	168	172	159	158	110
22	34						0	162	174	156	158	111
23	33						0	162	174	148	143	84
24	34						0	163	175	146	147	47
25	34						0	162	178	148	146	36
26	20						66	152	180	149	145	38
27	8.9						84	144	179	149	144	38
28	12						51	143	175	149	145	37
29	20						50	142	171	147	144	37
30	11						73	142	165	147	145	38
31	0							142		147	144	
<b>Total</b>	<b>1,530.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>334</b>	<b>4,561</b>	<b>4,441</b>	<b>4,878</b>	<b>4,821</b>	<b>3,127</b>

MEAN	49.4	0	0	0	0	0	11.1	147	148	157	156	104
ACRE- FEET	0,040	0	0	0	0	0	662	9,050	8,810	9,680	9,560	6,200

U. S. GOVERNMENT PRINTING OFFICE: 1954 O-50000-1

YEAR  
MEAN  
ACRE-  
FEET

64.9

47,000

Plate No. 52

for the year ending September 30, 1954

Westside Canal near Collinston, Utah

only discharge, in second-feet, of

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	393	116	54			14	0	261	644	646	595	641
2	393	116	51			0	0	268	619	644	611	639
3	393	114	52			0	0	354	617	644	611	626
4	393	112				0	0	467	617	641	608	611
5	383	111				0	0	475	562	641	619	613
6	367	110	50			0	0	506	496	644	637	617
7	360	110			28	0	0	619	500	677	650	606
8	343	102				0	0	646	494	695	663	593
9	343	93	39			0	0	670	460	695	663	587
10	344	93				0	0	668	397	695	663	566
11	344	93				0	0	681	379	692	666	522
12	333	93				0	0	711	402	695	666	451
13	316	93				0	0	722	479	692	668	496
14	290	93				0	0	725	458	692	668	484
15	256	93		28		0	0	727	408	692	668	484
16	205	94				0	0	738	429	692	659	486
17	192	93				0	0	736	473	677	648	467
18	181	93				0	0	743	630	635	646	450
19	181	93				0	0	748	644	646	644	450
20	173	92	30		25	0	0	748	697	634	644	465
21	159	90				0	0	722	722	613	622	486
22	158	90				0	0	681	725	587	619	484
23	158	90				0	0	686	725	555	619	273
24	158	76				0	0	688	722	553	617	119
25	158	65				0	0	679	722	555	615	135
26	110	64				0	0	628	718	566	613	140
27	85	64				0	45	593	688	578	630	144
28	78	64				0	270	595	659	576	637	142
29	90	63				0	283	595	670	576	637	141
30	118	59				0	300	593	661	574	637	144
31	117					0		619		574	639	
	7,572	2,732	1,106	868	735	14	898	19,292	17,417	19,676	19,782	13,062

MEAN	244	91.1	35.7	28	26.2	.5	29.9	622	581	635	638	435
ACRE-												
FEET	15,020	5,420	2,190	1,720	1,460	28	1,780	98,270	34,550	39,030	39,240	25,910

Plate No. 53

243

MEAN

YEAR

ACRE-Feet

204,600

16

16

16

16

16

16

**DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS  
ABOVE MYERS NARROWS**

[illegible]

\* Canals diverting in Utah  
\* Approximately one-third of the total flow of the Laramie Canal is used on Willard field

[illegible][illegible]

100

DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS  
FROM MYERS NARROWS TO STATE LINE NEAR WOODRUFF

FROM MYERS NARROWS TO STATE LINE																																FROM STATE LINE TO WOODRUFF																																TOTAL	
JUNE 1954																																JULY 1954																																TOTAL	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																		
ATKINS #1	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #2	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #3	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #4	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #5	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #6	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #7	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #8	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #9	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #10	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #11	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #12	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #13	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #14	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #15	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #16	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #17	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #18	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #19	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #20	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #21	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #22	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #23	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #24	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #25	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #26	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #27	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #28	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #29	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #30	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #31	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #32	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #33	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #34	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #35	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #36	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #37	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #38	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #39	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #40	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #41	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #42	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #43	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #44	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																	
ATKINS #45	15	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																																										

includes all cases listed diverting above Woodruff Harrow except Fowles Past Fort Canal



DAILY DISCHARGE IN CFS OF BEAR RIVER CANALS  
FROM MYERS NARROWS TO STATE LINE NEAR WOODRUFF

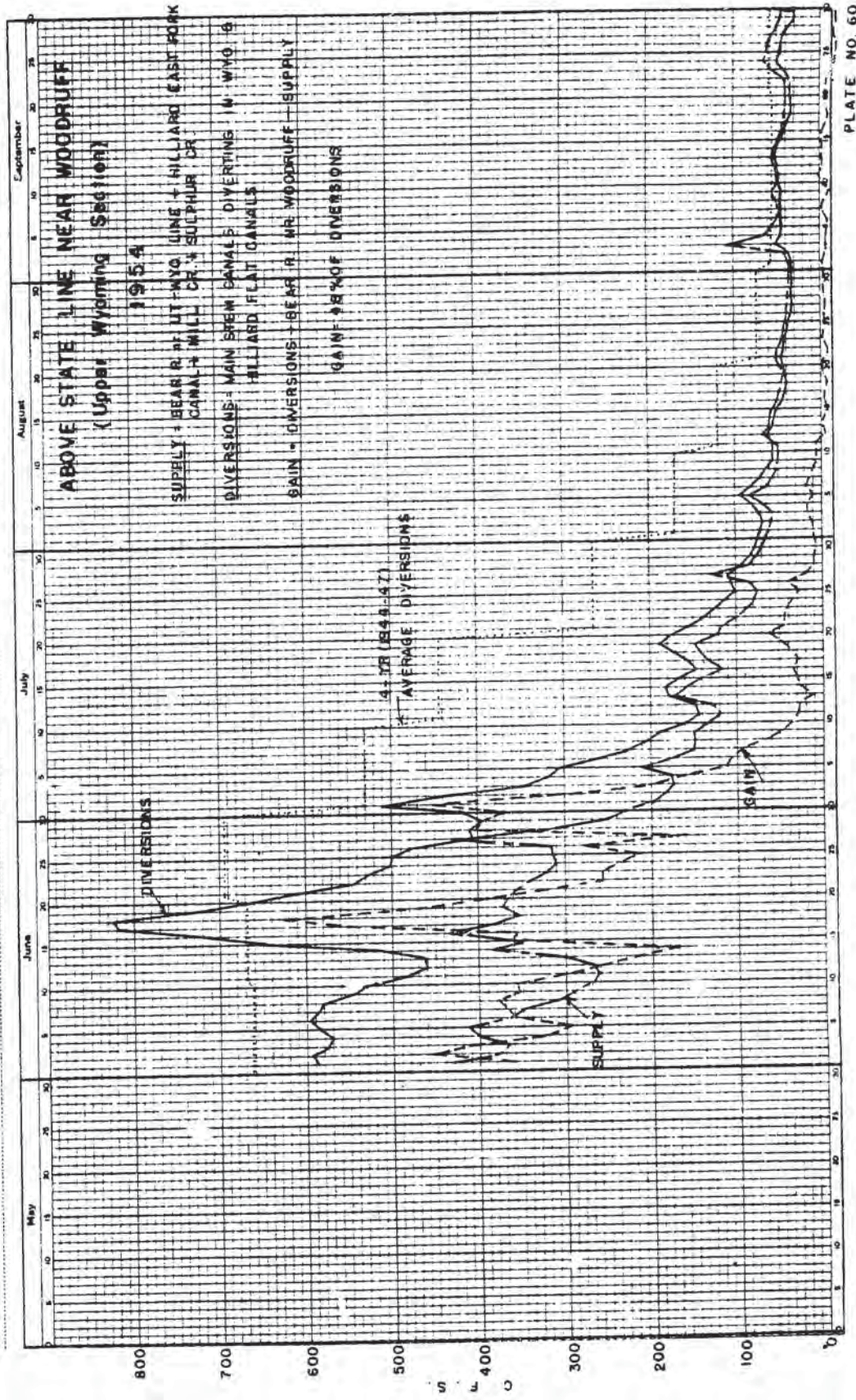
[illegible]

Includes all animals listed diverting above Woodruff Harrows except Howards East Fort (Canada)

DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS  
FROM MYERS NARROWS TO STATE LINE NEAR WOODRUFF

[illegible]

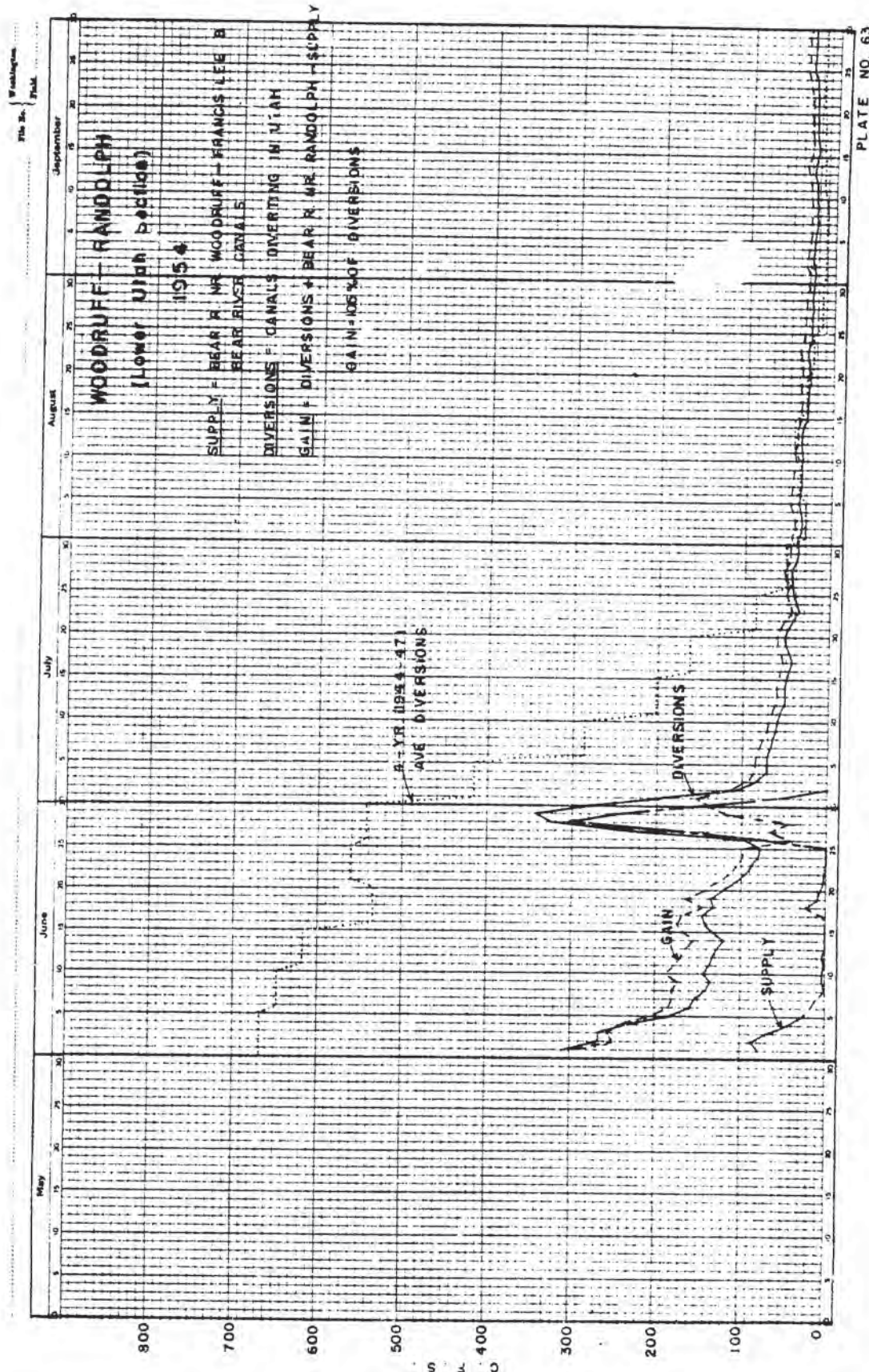
Yonkers all animals listed divided as above Woodruff Harrows except Harrows East Park Canal.

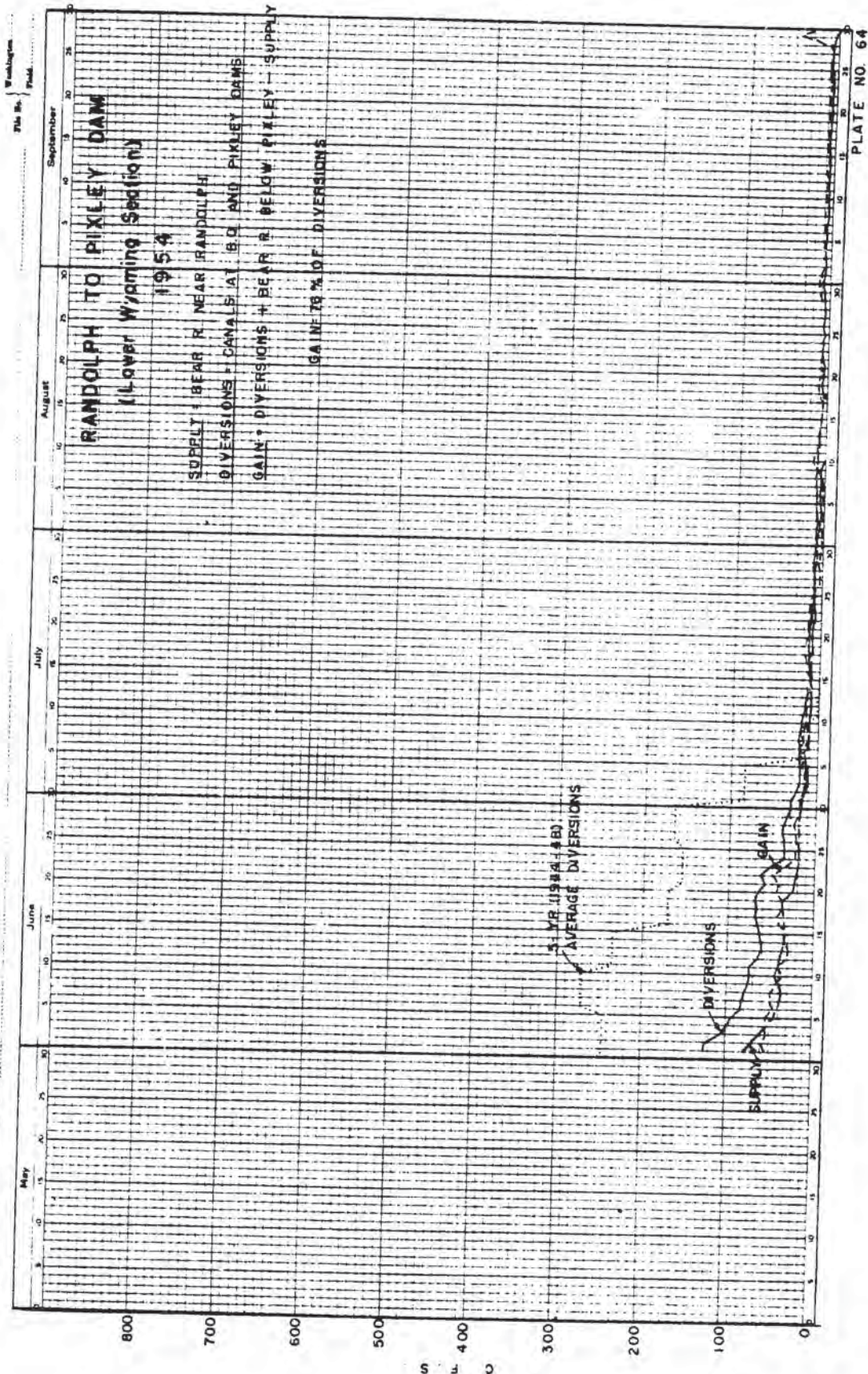


DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS  
FROM STATE LINE NEAR WOODRUFF TO PIXLEY DAM

[illegible]











DAILY DISCHARGE IN CFS OF SMITHS FORK & BEAR RIVER CANALS  
IN WYOMING SECTION OF CENTRAL DIVISION

AUG		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		TOTAL	
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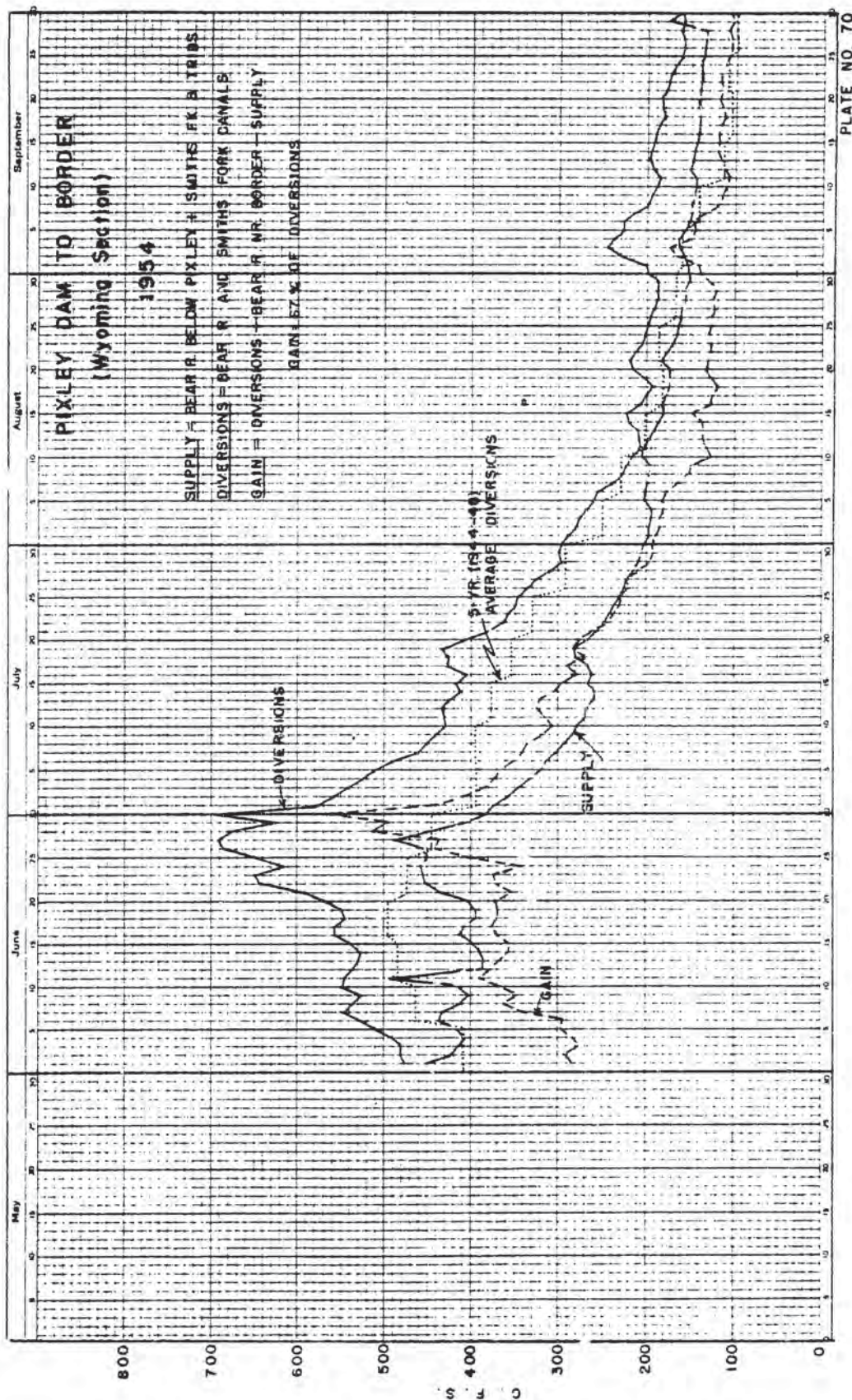
DAILY DISCHARGE IN CFS. OF SMITHS FORK & BEAR RIVER CANALS  
IN WYOMING SECTION OF CENTRAL DIVISION

[illegible]

PLATE NO 68

BEAR RIVER

SEP:









## DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS IN IDAHO

[illegible]

## DAILY DISCHARGE IN C.F.S. OF BEAR RIVER CANALS IN IDAHO

[illegible]

