

State of Idaho

H. C. BALDRIDGE, GOVERNOR

DEPARTMENT OF RECLAMATION

GEORGE N. CARTER, COMMISSIONER

BOISE

May 5, 1927

HONORABLE H. C. BALDRIDGE
Governor of Idaho
Boise, Idaho

SIR:

The eighth annual report of G. CLYDE BALDWIN, Special Deputy Commissioner of Reclamation and Watermaster of Water District No. 36, Snake River, is herein transmitted.

It is doubtful if there is any other single item of interest of so great importance to as many people involved as a unit in Idaho as the equitable apportionment of the waters of the Snake River, and I assure you that the responsibility of carrying through an irrigation season, the faithful administration of the decrees of courts and laws of the State, as they relate to the distribution of irrigation water in this district, is no light task.

The diversity of the problems which are constantly presented in this work requires most careful consideration and correct solutions are necessarily based on the soundest of judgment.

During the year 1926 the first use of American Falls Reservoir was had and 1927 will witness a full use of this latest addition to the irrigation resources of Idaho. With its use will come changes in the characteristics of the flow of Snake River; thus, information gathered heretofore, and so completely assembled and analyzed in the Watermaster's office, will be of incalculable value in future distribution of water from this river.

A great amount of credit is due Mr. Baldwin and his organization for the orderly manner in which Snake River water has been parceled out to its rightful owners and users during the period of his administration, and I take this means of expressing, on behalf of the Department of Reclamation, a grateful acknowledgment of the value of Mr. Baldwin's service.

Yours very respectfully

GEO. N. CARTER
Commissioner of Reclamation



STATE OF IDAHO
DEPARTMENT OF RECLAMATION

GEORGE N. CARTER, COMMISSIONER
G. CLYDE BALDWIN, DEPUTY

WATER DISTRICT No. 36

IDAHO FALLS, IDAHO

April 30, 1927.

C. BALDRIDGE, GOVERNOR

Mr. George N. Carter,
Commissioner of Reclamation,
Boise, Idaho.

Dear Sir:

It is with considerable pleasure that I submit herewith the technical report covering all regular water distribution and hydrometric operations in Water District No. 36 for the irrigation season of 1926.

The year marked the first use of the American Falls Reservoir for the storage of water for irrigation purposes and although the amount actually impounded was relatively small in proportion to the final capacity, it was of material benefit in supplementing the sub-normal supply. Furthermore, this reservoir afforded an excellent equalizing basin and, used for this purpose, helped both to prevent any waste of water and also to maintain the power head at the Minidoka Dam. Its use, however, introduced new problems in connection with the equitable segregation of stored water from normal flow and necessitated the revision of methods heretofore used. The practice of the past season is quite fully described herein but it appears probable that further modification of the plan of operation may be required as this new development becomes more fully utilized.

The normal stream flow was somewhat better sustained and more storage was available for use in 1926 than in the other recent "low water" years of 1919 and 1924. Through the exchange of normal flow for storage and by temporary transfers, as these were finally agreed upon, it was also possible after June 18th for many canals to adopt a sort of rotation system of delivery which helped to conserve their valid rights and increased the water duty. Because of these facts and advanced climatic conditions crop losses were generally not very serious.

U. S. Geological Survey methods have been used throughout as a standard for the collection and compilation of the hydrometric data which are presented in this report. In this, in the recomputation of records since the close of the irrigation season and in other respects the report is consistent with those which have been issued for the seven preceding years.

The so-called Normal Flow Fund was continued as a means of financing that portion of the work eventually paid for under the annual Water Master Bill. This fund was maintained during the past year through the advance of money by the Water Users Protector Association of the North Fork of Snake River and Tributaries, the Upper Snake River Water Users Protective Union, the Twin Falls Canal Company and the North Side Canal Company, Ltd.

Special acknowledgments are due to the North Fork Reservoir Company, the Snake River Valley Irrigation District and the Aberdeen-Springfield Canal Company for gage readings and to the Upper Snake River Water Users Protective Union, D. G. Martin, Thomas R. Newell, the U. S. Indian Irrigation Service, the U. S. Bureau of Reclamation, the Twin Falls Canal Company and the North Side Canal Company, Ltd. for gage readings, results of current meter measurements and other data which were furnished without charge.

Appreciation should also be expressed to you and to your predecessor in office, W. G. Swondson, as well as to the members of the Water Users Committee of Nine of District No. 36 for kindly cooperation and for advice and assistance which was freely given whenever required.

The conscientious service of the hydrographers, deputy water masters and other members of the regular organization must again be recognized and full credit be given for their part in the success of the year's operations.

For valued assistance in the preparation of this report acknowledgment is accorded to C. A. McClelland, Mans H. Coffin and Miss Helen George.

Respectfully yours,

G. Clyde Baldwin
Deputy.

WATER DISTRIBUTION AND HYDROMETRIC WORK

In District No. 36

1926

by G. Clyde Baldwin

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INTRODUCTION

At the annual meeting and election held in Idaho Falls, Idaho on March 1, 1926, G. Clyde Baldwin was again reelected to the position of Water Master of District No. 36 and F. A. Miller, Eph Peterson, John W. Hart, W. O. Cotton, John E. Kelley, L. C. Walker, E. B. Darlington, C. J. Miller and R. E. Shepherd were selected as members of the Committee of Nine.

After considerable discussion the following majority report of the resolutions committee was finally adopted as the program or plan to govern operations during the 1926 season, with only the Minidoka Project and the Twin Falls Canal Company recorded as voting in the negative:

"Your committee have to recommend that for the year 1926, water administration of Snake River, Water District No. 36, be had as follows:

I.

That from Jackson Lake (Moran) to Heise storage water shall be charged a transmission loss of $2\frac{3}{8}\%$, and in an attempt to establish conditions at Heise as nearly as practicable to pre-reservoir times, that storage water shall be charged a reasonable amount to cover lag and other causes of loss in return flow. Said amount to be repaid and returned to storage water interests before the close of the irrigation season, or before the storage water interests shall have exhausted their rights. It is understood that when a decreed right shall have been cut under river regulations that right shall not be reinstated until such time as its proportion of this amount shall have been repaid.

II.

That from Heise to Lorenzo bridge a minimum 3% channel transmission loss be charged storage water, and when it shall be shown by a "two day mean method" that there is an additional loss in excess of said 3% the natural or direct flow users must be credited with the additional amount. It being understood that a measuring station will be maintained at or near Lorenzo.

III.

That from Lerenzo to Woodville a loss of 0.5% be charged storage water for evaporation.

IV.

That from Woodville to Blackfoot a loss of 6% be charged to storage water.

V.

That the practice of temporary exchange, or temporary transfer shall be permitted; provided, however, that no exchanges or temporary transfers between water users shall be permitted or practiced until decreed rights shall have been invalidated or cut off, to a priority dating as of July 1, 1900, or rights superior thereto, and shall not continue after any right with a priority date as of July 1, 1900, may be reinstated. The date July 1, 1900 is fixed for the purpose of protecting direct flow users in what is called the lower valley from any possible harm through such practices.

VI.

That the salary of the Watermaster for the year 1926, be fixed in the same amount paid him for the year 1925, and that said Watermaster shall select such assistants and in the same manner as practiced during 1925, and that the total expenditure for river administration be kept within the total expended for like services and administration as that of 1924. That the Watermaster's bond be fixed at \$500.00 and his bond as Treasurer of the Normal Flow fund be fixed at \$4500.00.

VII.

In the matter of further investigation on Snake River and its tributaries your committee feels that this matter should be left to the water users at this meeting.

VIII.

These recommendations are offered for adoption with the understanding that the regulations therein provided for are temporary only for the irrigation of 1926 and for the purpose of harmonizing the interests of the various water users in District No. 36 for the said irrigation season of 1926 and are not offered in the light of admission that the plan therein proposed establishes any fixed or accurate facts touching the matters therein dealt with for the future irrigation seasons and are only binding for said irrigation

season of 1926. Nor shall the adoption of these recommendations be considered as an estoppel for future years."

The opposition to this plan was directed chiefly against paragraph V although the Twin Falls Canal Company also sought to have a section added which would provide for a storage transmission loss charge of 5% between the Blackfoot Bridge and Keeley gaging stations.

At this annual meeting the Committee of Nine was authorized to approve or incur whatever expenditures were in their judgment necessary for the proper administration of the affairs of Water District No. 36.

A resolution endorsing and recommending favorable action by Congress on legislation which would permit the creation of the so-called Bechler or Fall River Meadows Reservoir, in what is now the south-west corner of Yellowstone National Park, was also unanimously adopted.

On March 29, 1926 the Committee of Nine met at Idaho Falls, considered the annual Water Master budget and approved same in the amount of \$15817.50 as the estimated cost of all regular work properly chargeable against normal flow water users.

The following statement was unanimously approved for immediate transmission to the different canal companies and for release to the press of the district:

"To the Water Users of District No. 36.

The following general outline of the 1926 irrigation water supply prospects as same appear at the present time is furnished

for the information and use of water users of the District or others directly concerned:

Reports from Joseph Markham, Supt. Jackson Lake Dam, under date of March 17, 1926 show an average depth of snow above the outlet of Jackson Lake Reservoir of 53 inches with a mean water content of 18 inches. This is slightly more than was recorded for the same date of 1924 but is less than for any other year since the monthly snow surveys were first inaugurated in 1920. Earlier reports indicated a still more unfavorable situation over the upper Snake drainage area below Jackson Lake. For the Henrys Fork territory west of the Teton Mountains reports are less reliable but show a similar condition, although relative snow-fall appears to be slightly greater.

On March 20th, 540,090 acre-feet were stored in Jackson Lake Reservoir as against 180,380 acre-feet on the same date during the preceding year and 281,100 acre-feet in 1924. 360,440 acre-feet of the total now available represents the hold-over from 1925. Nearly 50,000 acre-feet are also understood to be now available at Henrys Lake Reservoir of which the major portion represents 1925 carry-over.

Mild weather was generally experienced during most of March, as a consequence of which the snow is well packed. Light winds during the winter resulted in very little drifting. In view of these conditions an early run-off may be expected unless cool weather continues.

From the above it seems possible that Jackson Lake Reservoir may fill to capacity although this will depend upon the time when storage draft begins.

Latest information is to the effect that work at American Falls Dam will not be advanced sufficiently to permit beginning the storage of water there before about April 15. How much can be impounded after that time will of course depend upon the extent of the supply available thereafter which is not required for immediate direct diversion use. Flood water waste up to a maximum of about 300,000 acre-feet can doubtless be eliminated by storage at this point.

Normal Flow users may reasonably expect to have little if any more water than in 1924 and should precipitation from now on be deficient or should the present snow reserve be materially depreciated by an early flood run-off, later irrigation water supply may be considerably less than in that year. Hence those depending chiefly upon normal flow rights are advised to prepare to use water during the early part of the season and to consider these prospects carefully in determining the best crops to plant for the season.

All users are urged to conserve water in every way possible to the end that waste may be eliminated and the highest possible duty obtained."

Action taken upon other matters is outlined in the following quotation from the minutes of this meeting:

"Moved by J. B. Stocking and seconded by John E. Kelley that the committee recommend the appointment of G. Clyde Baldwin as Deputy State Commissioner of Reclamation. Carried.

Moved by L. C. Walker and seconded by John E. Kelley that Water Master Baldwin be authorized to request advances to the Normal Flow Fund of Water District No. 36 in the manner heretofore followed and up to the limit of normal flow expense set forth in the budget, upon the understanding that these advances will be called for from Water Users' associations or canal companies approximately as the funds may be required to cover current bills and that interest at the rate of 8 per cent per annum will be allowed for the use of this money. Carried."

On March 10, 1926, the directors of the Twin Falls Canal Company, the Minidoka Irrigation District and the Burley Irrigation District jointly adopted a formal resolution protesting against the authorization of the exchange of normal flow for storage and the temporary transfer of water as provided for in paragraph V of the plan of operations which was adopted by majority vote at the annual meeting held in Idaho Falls on March 1, 1926. (See page 2). A copy of this protest was forwarded to W. G. Svendsen, Commissioner of Reclamation, Boise, Idaho and the latter in a letter to the Water Master under date of March 17, 1926, thereupon rendered the following opinion:

"It is your duty as watermaster to distribute the water in District 36, comprising Snake River and certain tributaries, pursuant to laws governing such distribution and the existing decrees of courts defining the rights to the use of water therein.

As I interpret the statutes and under legal advice I have obtained, no administrative officer has a right to or is justified

in departing from court decrees affecting water rights and distribution except by common consent of all users or owners of rights in and to the supply in question.

I have carefully examined the court decrees relating to rights in District 36 and find nothing therein which I am able to construe as giving you authority to carry out the provisions of Paragraph V of the resolution quoted in the foregoing. To carry out the said resolution would therefore be a departure from the provisions of the court decrees. Since a protest has been filed against the practice of temporary exchange covered by Paragraph V of the said resolutions, and common or unanimous consent to its adoption was not had, any administrative officer putting the resolution into effect under these conditions would in all probability be guilty of contempt of court and liable for damages under his bond."

Under this opinion, efforts to put into effect any modified rotation system of water delivery as between different canals were apparently blocked so long as this protest remained valid. Therefore when it later appeared certain, not only that a considerable shortage in the normal flow water supply would exist, but also that Jackson Lake Reservoir would not be filled and the amount of storage impounded at American Falls would be too small to afford material relief, the Committee of Nine went to Twin Falls, Idaho and on May 21, 1926, met there with the directors of the protestant irrigation interests in an attempt to agree upon some emergency plan which would help to eliminate threatened loss of crops by promoting a higher duty in the use of water throughout District No. 36.

Much difference of opinion was apparent and when no mutually satisfactory solution had been developed after an all day session, the meeting was continued at Rupert, Idaho on the next day. Here, after another long series of conferences and discussions which were participated

in by a number of attorneys as well as by committee members, canal directors and others, a compromise agreement was finally reached, drafted and signed. This waived the former protests and authorized both the exchange of normal flow for storage and the temporary transfer of water, after decreed rights were cut back to a priority of April 15, 1898, upon a net loss basis of $17\frac{1}{2}$ per cent (except in the Henry's Fork area where temporary transfers were permitted without deduction). The $17\frac{1}{2}$ per cent penalty was prorated on the basis of $12\frac{1}{2}$ to normal flow rights at Neeley and 5 to the Minidoka Project.

Water distribution and hydrometric work were administered in 1926 under the same general cooperative plan which has been described in detail in preceding reports.* Funds for securing hydrometric data of a wide-spread interest character were provided by the State of Idaho and the U. S. Geological Survey while operations conducted primarily in connection with water distribution were sustained at the expense of normal flow and stored water users of the district.

Beginning in 1923 the offices of Water Master and Special Deputy were consolidated, but aside from this the organization and division of work has changed but little since the central office at Idaho Falls was first established on a permanent basis in May 1919.

*Water Distribution and Hydrometric Work in District No. 36, 1919; 1920; 1921; 1922; 1923; 1924 and 1925 by G. Clyde Baldwin.

Actual water deliveries, storage transmission via natural stream channels and other phases of river operation have been conducted each year in accordance with certain regulations and schedules usually adopted by the water users at the annual March election meeting. These regulations cover points on which the statutes and decrees are not sufficiently definite or concerning which available data are too incomplete to afford satisfactory basis for a single fixed method of procedure. Occasionally also, when unanimous consent has been secured, certain departures from statutory methods prescribed for water distribution have been authorized. The former reports of the Deputy State Commissioner of Reclamation, already referred to, should be consulted for further details or information concerning the changes in these regulations which were in force during former years.

In addition to the usual early season activities of re-establishing stations which had been temporarily discontinued for the winter and securing meter measurements for the fixation of current ratings, gages were established and records of flow initiated on all spring and tributary stream diversions in the vicinity of Springfield and Sterling, Idaho. This new work was made necessary by reason of a formal demand on the part of the Twin Falls Canal Company for the regulation of all canals and ditches in this area.

Regular river riders and deputy water masters were required to begin their work for the season on May 19.

Because of the unusually low stream discharges noted and in order to obtain a more complete record of upper Valley diversions than would otherwise have been practicable, four of these men had already been on duty as gage readers for a period of about two weeks prior to this date. As in 1925, however, this pre-season employment was at the expense of lower valley canal companies.

PERSONNEL

The personnel engaged in the work of distribution during the season of 1926 was as follows:

G. Clyde Baldwin	Deputy State Commissioner of Reclamation, Special Deputy in charge of Jackson Lake, Twin Lakes, Market Lake and American Falls Stored Water Delivery and Water Master of District No. 36.
C. A. McClelland	Hydrographer, Deputy Water Master and Special Deputy in charge of Henry's Lake Stored Water Delivery
L. L. Bryan	Hydrographer
Mans H. Coffin	Hydrographer
Leo K. Homer	Hydrographer
Alfreda Haggerty	Clerk and office assistant, Idaho Falls office
Mrs. Wilma Adams	" " " " St. Anthony office
Bruno Albert	Deputy Water Master, Upper Fall River division
T. W. Luetjen	" " " St. Anthony division
John H. Reed	" " " and Hydrographer Teton River division
Wm. Burton	" " " Swan Valley Canals
W. J. Kremer	" " " Heise division
Wm. Sauer	" " " Rigby division
Chas. McCurdy	" " " Idaho Falls division (May 19-July 24)
S. W. Dennis, Jr.	" " " " " " (July 25-Sept. 30)
Delbert Taylor	" " " Blackfoot division
C. T. Judah	" " " and Hydrographer Springfield-Sterling Section
Fred J. Anderson	" " " Minidoka Dam
W. N. McConnel	" " " and Hydrographer, Milner Dam
J. M. McGinn	Gate Tender, Henry's Lake Dam
Joseph Markham	Superintendent, Jackson Lake Dam
Frances W. Herre	Forwarding Agent, Ashton, Idaho.

MAP SHOWING PRINCIPAL STREAMS AND GAGING STATIONS



- | NO. | STATION |
|-----|--|
| 1 | JACKSON LAKE AT MORAN WYO. |
| 2 | SNAKE RIVER NR. MORAN WYO. |
| 3 | SNAKE RIVER NR. HEISE, IDA. |
| 4 | GREAT FEEDER CANAL NR. RIRIE, IDA. |
| 5 | SNAKE RIVER AT LORENZO, IDA. |
| 6 | SNAKE RIVER NR. SHELLEY, IDA. |
| 7 | SNAKE RIVER NR. BLACKFOOT, IDAHO (BLACKFOOT BRIDGE) |
| 8 | SNAKE RIVER AT CLOUGH'S RANCH (formerly listed as nr. Blackfoot) |
| 9 | SNAKE RIVER AT NEELEY, IDA. |
| 10 | LAKE WALCOTT NR. MINIDOKA, IDA. |
| 11 | SNAKE RIVER NR. MINIDOKA, IDA. |
| 12 | NORTH SIDE MINIDOKA CANAL NR. MINIDOKA, IDA. |
| 13 | SOUTH SIDE MINIDOKA CANAL NR. MINIDOKA, IDA. |
| 14 | LAKE MILNER AT MILNER, IDA. |
| 15 | NORTH SIDE TWIN FALLS CANAL AT MILNER, IDA. |
| 16 | SOUTH SIDE TWIN FALLS CANAL AT MILNER, IDA. |
| 17 | SNAKE RIVER AT MILNER, IDAHO. |
| 18 | HENRYS LAKE RESERVOIR NR. LAKE, IDA. |
| 19 | HENRYS FORK NR. LAKE, IDA. |
| 20 | HENRYS FORK NR. ASHTON, IDA. |
| 21 | HENRYS FORK AT ST. ANTHONY, IDA. |
| 22 | HENRYS FORK NR. REXBURG, IDA. |
| 23 | FALL RIVER NR. SQUIRREL, IDA. |
| 24 | FALL RIVER NR. CHESTER, IDA. |
| 25 | TETON RIVER NR. ST. ANTHONY, IDA. |
| 26 | BLACKFOOT RIVER NR. BLACKFOOT, IDA. |
-
- | AUXILIARY STATIONS | |
|--------------------|---|
| A | SNAKE RIVER AT SOUTH BOUNDARY YELLOWSTONE PARK. |
| B | HENRYS FORK AT WARM RIVER, IDA. |
| C | WARM RIVER AT WARM RIVER, IDA. |
| D | ROBINSON CREEK AT WARM RIVER, IDA. |
| E | PORT NEUF RIVER AT POCATELLO, IDA. |
| F | SNAKE RIVER AT ROBERTSON RANCH. |
-
- | NEW REGULAR STATIONS | |
|----------------------|---|
| 27 | AMERICAN FALLS RESERVOIR AT AM. FALLS, IDA. |
| 28 | SNAKE RIVER AT AMERICAN FALLS, IDA. |



Mrs. J. L. Carter, Harold Ruqua, Mrs. Irvin Siepert, W. H. Kremer, Eva Davis, J. A. Clough, A. J. Ayers and G. S. Gilham, Gage Readers.

T. R. Smith and Eugene Anderson of the U. S. Bureau of Reclamation, W. G. Steward and H. G. Haight of the Twin Falls Canal Company also did a large amount of hydrometric work between the Blackfoot Bridge and Neeley gaging stations which was made available for use in connection with the preparation of this report.

DESCRIPTIVE OUTLINE OF 1926 DISTRIBUTION

Throughout the upper Snake Valley temperatures were generally considerably above, while precipitation was somewhat below normal during each of the months of March, April, May and June. This situation resulted in an unusually early, although rather dry spring. May demands for irrigation water were consequently heavier than usual while at the same time stream flow was far below normal. Everyone was anxious to have the maximum possible amount of storage impounded to afford protection for the latter part of the summer and for this reason, presumably, the demand for beginning the regulation of diversions was postponed until Snake River became practically dry at Blackfoot Bridge when it came almost simultaneously from several sections of the district.

Consequently, the impounding of stored water ceased and all canals were ordered cut to record rights on May 20, 1926 while the first storage was released from Jackson Lake Reservoir on the following day.

Diversions under permit and license rights together with those under some of the youngest decreed rights were first ordered stopped on June 1. Prior to this date and before regulation was

initiated, many rights were automatically curtailed, either because of deficient normal flow in certain sections of the river to fill them, or because of inability of the respective canals to divert full heads of water at the low river stages which then prevailed.

Thereafter, decreed rights were regulated in accordance with the following schedule:

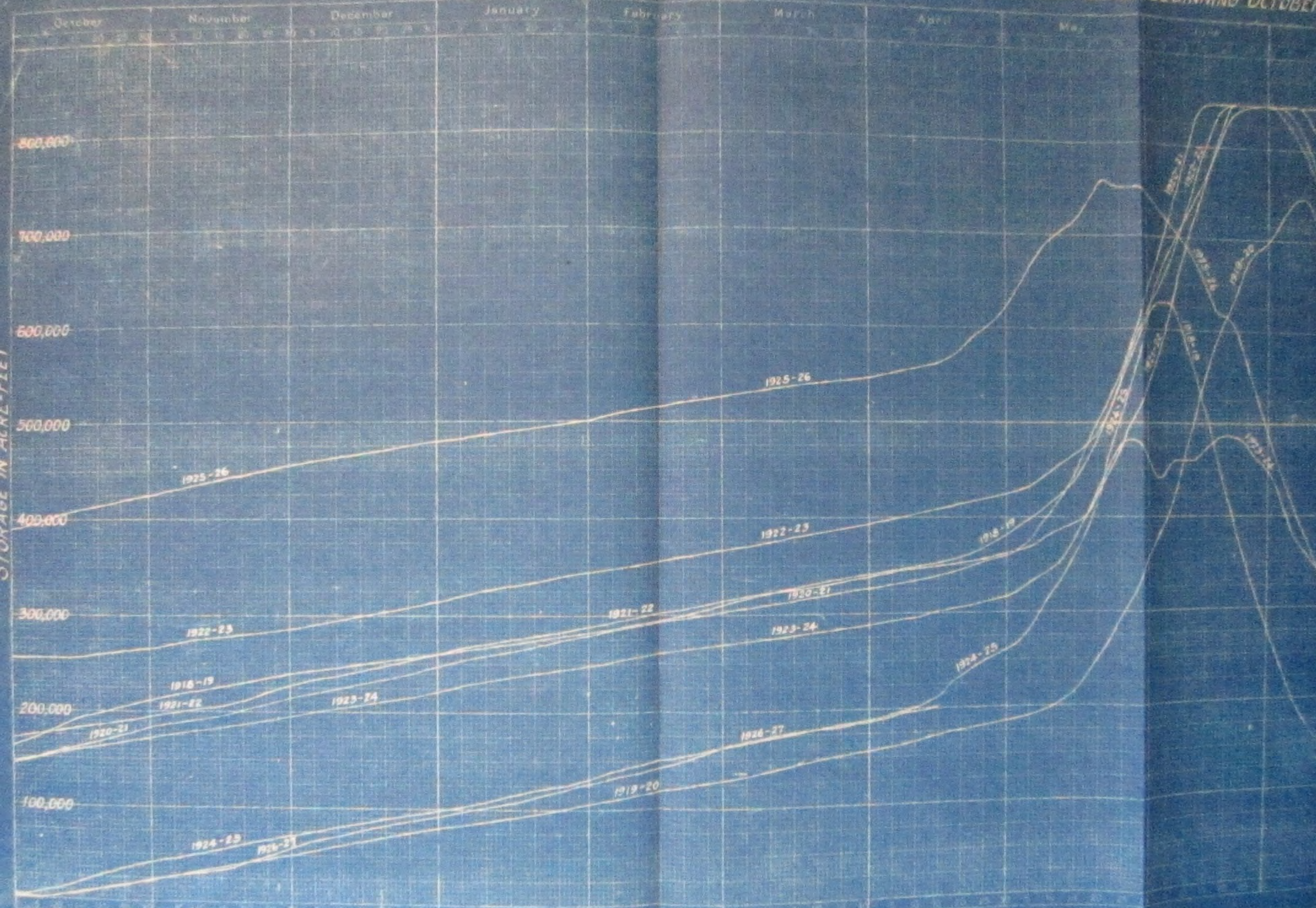
June	6	Cut off rights having a priority date subsequent to	Mar.	26,	1903
"	12	Reinstated rights having a priority date earlier than	June	11,	1903
"	14	Cut off rights having a priority date subsequent to	Mar.	26,	1903
"	17	" " " " " " " " " " " "	Oct.	11,	1900
"	19	" " " " " " " " " " " "	Apr.	14,	1898
"	21	" " " " " " " " " " " "	July	1,	1895
"	22	" " " " " " " " " " " "	Mar.	25,	1895
"	23	" " " " " " " " " " " "	Feb.	6,	1895
"	24	" " " " " " " " " " " "	Aug.	18,	1894
"	25	" " " " " " " " " " " "	June	1,	1892
"	26	" " " " " " " " " " " "	Dec.	14,	1891
July	1	Reinstated rights having a priority date earlier than	May	2,	1892
"	10	" " " " " " " " " " " "	May	1,	1893
"	11	" " " " " " " " " " " "	Aug.	18,	1894
"	14	Cut off rights having a priority date subsequent to	May	1,	1892
"	15	" " " " " " " " " " " "	Dec.	14,	1891
"	16	" " " " " " " " " " " "	Jan.	24,	1891
"	17	" " " " " " " " " " " "	Oct.	16,	1890
"	18	" " " " " " " " " " " "	June	10,	1890
"	19	" " " " " " " " " " " "	Mar.	1,	1890
"	20	" " " " " " " " " " " "	July	10,	1889
Aug.	5	Reinstated rights having a priority date earlier than	Oct.	17,	1890
"	6	" " " " " " " " " " " "	Jan.	24,	1891
"	7	Cut off rights having a priority date subsequent to	June	2,	1890
"	8	" " " " " " " " " " " "	Mar.	2,	1890
"	12	Reinstated rights having a priority date earlier than	Oct.	16,	1890
"	24	" " " " " " " " " " " "	Dec.	14,	1891
"	26	Cut off rights having a priority date subsequent to	Jan.	24,	1891
"	27	" " " " " " " " " " " "	Oct.	16,	1890
"	28	" " " " " " " " " " " "	Mar.	1,	1890
"	31	" " " " " " " " " " " "	July	10,	1889
Sept.	3	" " " " " " " " " " " "	May	11,	1889
"	8	Reinstated rights having a priority date earlier than	April	30,	1890
"	9	" " " " " " " " " " " "	July	12,	1890
"	20	Cut off rights having a priority date subsequent to	July	10,	1889
"	25	Reinstated rights having a priority date earlier than	June	10,	1890

Demand for water decreased materially after the latter date and following a very general storm on September 29-30 regulation for the season (except a small amount of supervision of distribution to lower valley canals) was ended.

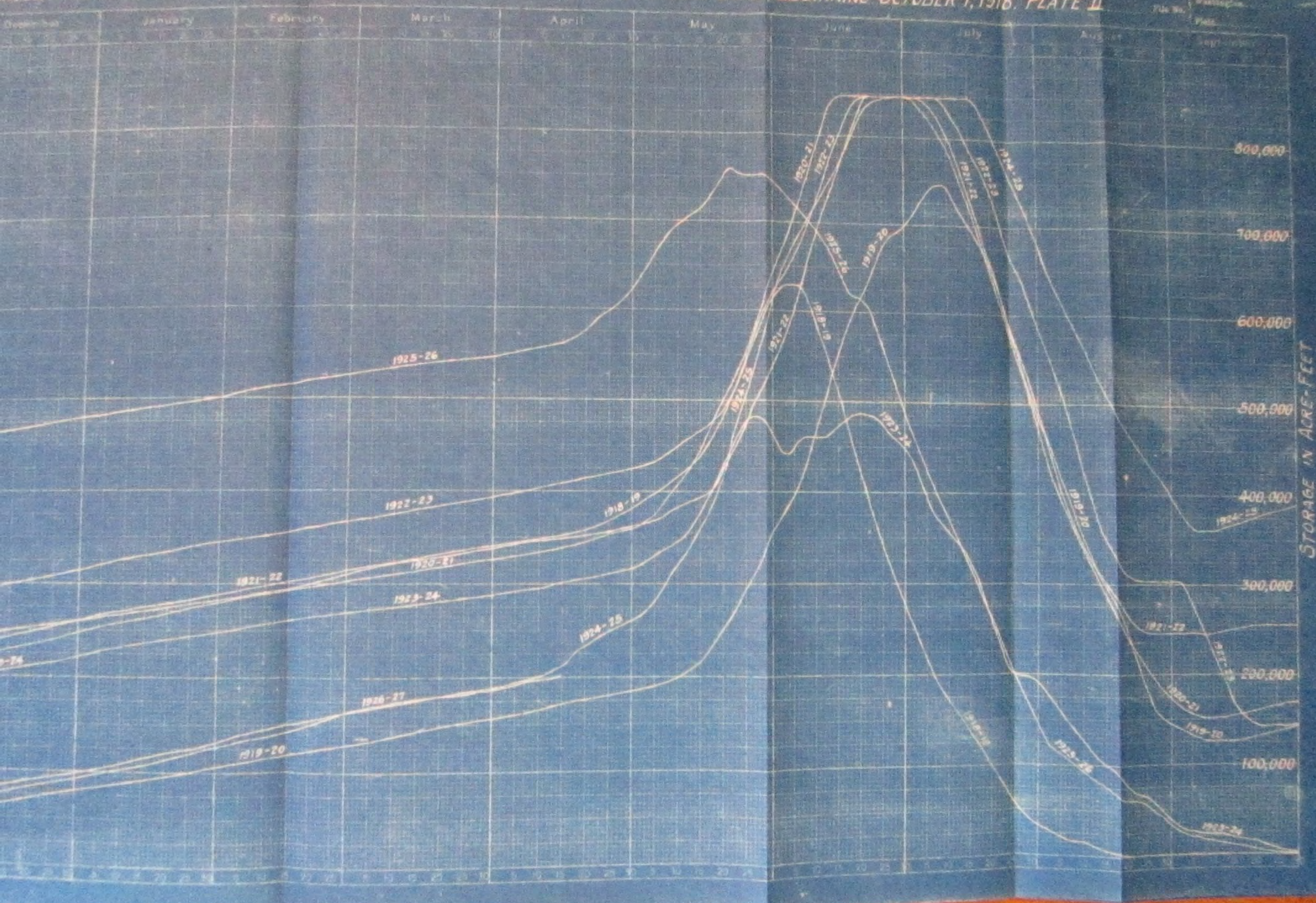
As in 1925 and also to some extent in former years, upper valley canals were regulated slightly later than canals below American Falls in an effort to take into account and make allowance for the so-called storage transmission lag as provided for in paragraph 1 of the 1926 program of operations (see page 1),

Sales of storage by upper to lower valley canals at irregular intervals during August and September delayed the damming of Snake River below Blackfoot which usually occurs in the latter part of seasons of very deficient water supply and made equitable distribution somewhat more difficult because of the resulting fluctuations in river stage. In fact, on several occasions canals between Idaho Falls and Blackfoot were allowed to divert water under other than strict adherence to the regulation schedule previously outlined, because, had they not been allowed to do so, rights with still younger priorities located farther downstream would have received the surplus which perhaps really should have been given to canals in the Heise-Rigby section had it been practicable to anticipate the changes in flow with sufficient accuracy.

By the end of September Jackson Lake Reservoir was nearly empty and the release of storage was terminated. The entire normal flow of the river was allowed to pass the dam, however, until October 6 when the gates were ordered closed to begin impounding water for the 1927 irrigation season.



Plotted by _____ Checked by _____ Date _____



STORAGE IN ACRE-FEET

Washington
File No.
Plate

Plate II shows graphically the manner in which Jackson Lake was filled and drawn down during the period from October 1, 1918 to March 31, 1927. All graphs are plotted on the basis of 1919 capacity tables. (See 1925 report for similar graphs covering the period from November 15, 1914 to September 30, 1918).

WATER SUPPLY

If the comparison of annual run-off at the Moran and Neeley gaging stations which has been included in the six preceding reports, is extended to include the year ending September 30, 1926 the data may be summarized as follows:

Station	Mean annual run-off for 23 years ending September 30, 1926	Run-off for year ending September 30, 1926	% of Mean
Moran	1,093,000	761,000	69.6
Neeley	6,525,000	4,789,000	73.4

In this tabulation all Moran records beginning with the year 1910 have been corrected to take account of the storage in Jackson Lake which is held over from one climatic year to another. Neeley records, on the other hand, represent actual totals measured at the gaging station except in the year ending September 30, 1926 when a single correction was made to take into account the storage then remaining in the American Falls Reservoir. Variations in the amount diverted for irrigation, as well as in the quantity of inflow entering between the two stations, also affect the Neeley comparisons. If dependable corrections could be computed to cover all these different factors, their application to the Neeley data would undoubtedly make

the records at the latter station more consistent with those at Moran. This has not been attempted because the development of such corrections from the data available would be difficult, if not almost impossible, and for the further reason that total annual run-off is often not a true measure of the summer water supply.

Additional information concerning the latter together with comparisons showing the relative normal flow supply and use by months will be found further on in the text of this report and in the tables on Plate XIX.

STORAGE VERSUS FLOOD WATER DIVERSIONS

No appreciable conflict between the use of water for storage under permit rights and its use by direct flow diversion under prescriptive or non record rights existed during the season. Something of this character might have developed had regulation been demanded at an earlier date but even then it would have been of short duration.

DOMESTIC WATER

The practice first inaugurated in 1920 of making no allowance of water for domestic or culinary use to canals whose entire rights had become invalidated, was again continued.

In the early part of the summer very little stored water was offered for sale and purchasers of small quantities at that time were compelled to pay about \$2.00 per acre-foot for 1926 use. Later, when the requirements of the respective canals were more definitely established, comparatively large quantities were disposed of at \$0.75 per acre-foot.

TEMPORARY TRANSFERS

In accordance with the agreement signed at Rupert on May 22 the temporary transfer of water was permissible beginning June 19 when regulation reached the stage where decreed rights with a priority date subsequent to April 14, 1898 were cut off.

During the balance of the season the total amount released for transfer to other canals amounted to about 70,000 acre-feet of which 30,469 acre-feet in the central area was subject to the $17\frac{1}{2}$ per cent deduction while the remainder, representing transfers in the Henry's Fork area, covers transactions not penalized.

Under date of June 26, 1926 a written protest against the continuation of the practice of allowing temporary transfer of water was forwarded to both the Commissioner of Reclamation and the Water Master of District No. 36 by officials of the Fall River Irrigation Company and the Twin Groves Canal and Irrigation Company.

In the Water Master's reply, dated June 28, attention was called to the fact that at the annual election meeting of March 1, 1926 these companies had at least tacitly agreed (through failure to register any objection) to paragraph V of the plan of operations which authorized these temporary transfers under fewer restrictions than were finally provided in the Rupert agreement. In view of these circumstances the opinion was given that the later protest could hardly be considered in connection with the 1926 water distribution. This position was also approved by the Commissioner of Reclamation.

EXCHANGE OF NORMAL FLOW FOR STORAGE

The general conditions under which it was possible during 1926 to release normal flow in exchange for stored water to be delivered at a later date have already been described. (See pages 5-7).

With the exceptions noted herein these exchanges were carried out under the same regulations provided in 1924 and described on pages 16-17 of the report on "Water Distribution and Hydrometric Work in District No. 56" for that year.

During the season a total of 156,202 acre-feet was released by upper valley canals for exchange in this manner, all of which was subject to the $17\frac{1}{2}$ per cent penalty charge.

During the latter part of the summer several of the canals which succeeded in accumulating the largest storage credits through the medium of these exchanges found that, because the normal flow of the river had been better sustained than had been expected, they would not require all this water for their own use. Therefore, they proceeded to sell part or all of their storage accumulation to other canals - chiefly in the lower valley - whose need was greater than their own. Most of these sales were made at the rate of \$0.75 per acre-foot measured at the Woodville gaging station.

Normal flow was substituted for storage under authority of Section 5560 of the Idaho Compiled Statutes in two instances as follows:

1. The water being diverted from Snake River by the Reservation Canal of the U. S. Indian Service was turned back to the stream in lieu of stored water from Blackfoot-Marsh Reservoir for delivery to the

North Side Canal Company, Ltd. during the period May 26-June 15. This was done in order to expedite the storage delivery and avoid delays which must otherwise result from the limited carrying capacity of lower Blackfoot River -- the normal outlet for water from the Blackfoot Reservoir. The usual 6 per cent loss was charged for transmission of this water from the Reservation heading to Blackfoot Bridge.

2. Stored water sold by the Farmers Friend Irrigation Company to the Enterprise Irrigation District whose canal diverts from Fall River was turned down Snake River to replace normal flow diverted from the latter stream. This is the only method by which Jackson Lake storage can now be delivered to canals in the Henry's Fork area.

LITIGATION

On June 3, 1926, a temporary injunction was issued by Ralph W. Adair, Judge of the Sixth Judicial District restraining G. Clyde Baldwin, Water Master and C. T. Judah, Deputy Water Master, from regulating or in any way interfering with the diversion and use of water from Alkali Spring and Colborn Creeks in the vicinity of Sterling, Idaho by R. A. Ward, L. D. Bronson, John W. Herbert, Mark Colborn, Mrs. L. A. Nugent and John W. Wright, all of whom were plaintiffs in an action brought against these two officials.

The principal question at issue is whether or not State and Water District authorities have the right to prevent diversion of water from the above named streams under permit and license rights at times when the normal flow of Snake River is insufficient

to fill decreed rights with an older priority date located below American Falls, Idaho. It is generally understood that most if not all of the water in these small streams has appeared since the American Falls or Aberdeen-Springfield Canal has been in operation.

On September 16, 1926 a complaint in intervention in this case was filed by the Twin Falls Canal Company but up to date no regular hearing has been scheduled.

On December 15, 1926 a decision was handed down by the Supreme Court of the State of Idaho in the case of the Independent Irrigation Company, Ltd., et. al., versus G. Clyde Baldwin, Water Master of District No. 36, et. al., in which the judgment of the lower court in granting a nonsuit was reversed. It, therefore, appears probable that this action will again come before the District Court for trial on its merits. (See 1922, 1923 and 1924 reports on "Water Distribution and Hydrometric Work in District No. 36" for summary of the earlier history of this case).

On February 25, 1927 the first hearing on demurrers in the case of Woodville Canal Company versus Clark and Edwards Canal and Irrigating Company et. al., or the so-called "High Water Decree" case was held before Geo. W. Edgington, Judge of the Ninth Judicial District. At the time this report was prepared negotiations were in progress looking towards a stipulated agreement between the different parties at interest concerning many of the principal issues involved and no final hearing date had as yet been fixed.

No decision has as yet been rendered by the State Supreme Court on the appeal from Judge Edgington's verdict sustaining the validity of the permanent transfer of 40 second-feet of water from the Long Island to the Farmers Friend Irrigation Company. (See 1925 report for further description).

The action brought by the Minidoka and Burley Irrigation Districts during 1924 in the Court of the Eleventh Judicial District against the Water Master of District No. 36 and others on the matter of temporary transfer and exchange of water has not as yet been dismissed although it now seems unlikely that it will ever come up for trial.

CANAL DELIVERIES

The total amount diverted daily through each canal heading either in the South Fork or main river during the period from May 1 to September 30, 1926 is shown on Plates III, IV, V, VI and VII.

Following the practice inaugurated in the 1919 report, except for a few of the smaller canals where estimates were used, all data were recomputed prior to their presentation herein. This practice affords opportunity to more thoroughly analyze the records at each station than is possible in the limited time available during the field season. Wherever changes in rating have been noted, either because of the growth of vegetation, variation of checks or for any other reason, all meter measurements, notes and other information have been carefully reviewed to the end that the final computed data may represent the most reasonable interpretation of these changes, particularly as regards time. On days when more than one stage has

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM SNAKE RIVER FOR MAY 1926

PLATE NO. 11

Table with columns for canal names and 31 days of discharge data. Rows include individual canals like Nibley, Anderson, and various farm canals, followed by summary rows for 'TOTAL DIVERGERS BEAK TO BENDVILLE' and 'TOTAL DIVERGERS BEAK TO FLORENCE'.

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM SNAKE RIVER FOR JUNE 1926

Table with columns for canal names (e.g., ABRAHAMSON, BUCKLEY, CLARK & EDWARDS) and 30 numbered columns representing days of the month, plus a 'TOTAL' column. The table contains numerical data for each canal across the days.

1926 DISTRIBUTION WATER DISTRICT NO 36
DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM SNAKE RIVER FOR SEPTEMBER 1926

Table with 31 columns (1-30) and a 'TOTAL' column. Rows include various canal names such as 'WILSON', 'BUTLER', 'SPEEL', 'WELLS', 'WELLS & WARD', 'BURGESS', 'CLARK & EDWARDS', 'LLOYD', 'JENNINGS', 'L. B. BELLE', 'CONDENSATED FEEDER', 'LINDSEY', 'T. C. S. FEEDER', 'NICHOLS CORLEY', 'WILL BETTINGER', 'LONG ISLAND', 'BLEND', 'MOSEY', 'WEST L. B. BELLE', 'PARKS & LEWISVILLE', 'NORTH BABY', 'WHITE', 'NORTHWELL', 'ELLS', 'INDEPENDENT', 'BOTTE & MARKET LAKE', 'SHEPHERD', 'ORNDORF', 'KENNEDY & BURROGH', 'SEAR ISLAND & SMITH', 'T. O. HANCOCK', 'EIGHT WESTERN', 'PORTER', 'ISLAND FALLS CITY MAIN', 'WOODVILLE', 'SNAKE RIVER VALLEY', 'TOTAL DISCHARGE FROM SNAKE RIVER', 'RESERVATION', 'BLACKFOOT', 'NORTH LAKE SIDE', 'PEOPLES', 'RICKS RICH FIELDS', 'CORBETT', 'MILLEN HANSEN', 'NILESIDE', 'DANKIN', 'TREVINO', 'WILKINSON', 'WINTSON', 'TOTAL DISCHARGE FROM SNAKE RIVER TO BLACKFOOT', 'SOUTH MAYWELL', 'TOTAL DISCHARGE FROM BLACKFOOT TO CLOUGH', 'NORTH SIDE MINIDOKA', 'SOUTH SIDE MINIDOKA', 'TOTAL MINIDOKA CANALS', 'T. H. L. L. L.', 'NORTH SIDE TWIN FALLS', 'MILNER LOW LIFT', 'SOUTH SIDE TWIN FALLS', 'TOTAL TWIN FALLS CANALS'.

been observed mean discharges have been recorded. Daily summaries showing the total diversions between river gaging stations have also been included.

Data for upper valley canals for the first ten days of May have been partially estimated or interpolated but with this exception the records are based upon daily gage readings.

No record is included of the small amount of water which was diverted by the Morgan and Rostan canals prior to May 14 as thereafter the channel in which these canals lead was shut off from its river supply, first because of low stage conditions and when regulation began, by the reconstruction of the old temporary dam.

Laterals which divert from several of the canals above the main gaging stations are, in these tables, in each case included with the flow in the main canal.

The canals are listed by divisions, each of which represents the territory covered by a deputy water master or river rider. The canals of each division in general are shown in down stream order.

RIVER DATA

The extensive tables found on Plates VIII, IX and X summarize data in regard to total flow, normal and stored water segregation, diversions, losses and gains for each section of the river between Jackson Lake and Milner.

These tables are prepared upon the following time

interval basis:

Time from Jackson Lake In Hours	Gaging Station	Period used for comparable daily means.
0	Jackson Lake and Moran	Day ending at 4 a.m.
24	Heise	Day ending at 4 a.m. 1st day following
28	Lorenzo and Rexburg	Day ending at 8 a.m. 1st day following
42	Woodville	Day ending at 10 p.m. 1st day following
50	Blackfoot Bridge	Day ending at 6 a.m. 2nd day following
53	Blackfoot (Robertson)	Day ending at 9 a.m. 2nd day following
54	Blackfoot (Cloughs)	Day ending at 10 a.m. 2nd day following
66	American Falls	Day ending 10 p.m. 2nd day following
68	Neeley	Day ending at 12 midnight 2nd day following
92	Minidoka	Day ending at 12 midnight 3rd day following
116	Milner	Day ending at 12 midnight 4th day following.

This schedule for time of transmission is the same as the one adopted for the seven preceding years, and while not exactly correct for all stages of the river, it is believed to be fairly representative of average conditions, and on this account was used throughout the entire period of record.

The dates given on these three plates are those which agree most nearly with the midday hour on this schedule, but the discharges for all river stations have been computed from recording gage records and agree exactly with the schedule. The summaries of diversions or canal totals are for the dates indicated on the tables.

1926 DISTRIBUTION WATER DISTRICT NO. 36.

DATE	JACKSON LAKE			MORAN			TWIN LAKE DATE		HEISE				MORAN - HEISE			LORENZO		H - L		LEXBURG	HEISE RILEY LEXBURG	DATE									
	1926	GAGE	CAPACITY	WRITE	GAGE	DISCH	STD.	NOR.	DISCH	MORAN	1926	GAGE	DISCH	RILEY	STD.	T.L.K.	NOR.	TOTGN	STD.				L.T.L.	NOR.	STD.	T.L.K.	L.STD.	T.L.	DISCH		
May 9	6269	689440		0.26	34		34			May 9	4.35	9540	9564					9564	9530									497	2190	1755	1926
9	6289	694320		0.26	34		34			10	4.13	8800	8821					8821	8787									488	1840	10661	
10	6306	698480		0.33	45		45			11	3.97	8280	8295					8295	8253								414	1520	9818		
11	6321	702160		0.33	45		45			12	3.84	7870	7883					7883	7843								380	1280	9168		
12	6335	705600		0.33	45		45			13	3.73	7530	7546					7546	7501								348	1070	8616		
13	6348	708790		0.33	45		45			14	3.65	7260	7295					7295	7250								317	895	8190		
14	6363	712470		0.33	45		45			15	3.66	7310	7324					7324	7279								298	795	8119		
15	6385	717880		0.33	45		45			16	3.78	7680	7696					7696	7651								289	800	8496		
16	6413	724770		0.33	45		45			17	4.35	8540	8559					8559	8514								326	945	9504		
17	6444	732440		0.34	47		47			18	4.26	9230	9253					9253	9206								324	1240	10423		
18	6474	739860		0.36	51		51			19	4.25	9200	9223					9223	9172								376	1250	10473		
19	6510	748780		0.32	44		44			20	4.46	9920	9945					9945	9901								379	1270	11215		
20	6531	758980		H.D.	1770		1770			21	5.10	12410	12410					12410	10640								458	1640	14300		
21	6556	760230		572	5280		5280			22	6.30	16080	16104					16104	10824								495	2250	18354		
22	6541	756490	3740	6.60	6950	1886	5064			23	6.33	17650	17672	1839				15633	10722	17							483	2160	19832		
23	6529	753310	2980	6.70	7170	1502	5603			24	6.55	18800	18825	1464				17361	11655	38							575	2490	21715		
24	6524	752260	1250	6.48	6730	630	6100			25	6.47	18450	18475	614				17859	11743	16							549	2090	21313		
25	6522	751760	500	5.68	5250	252	4998			26	6.00	16490	16513	246				16267	11263	6							523	260	19113		
26	6522	751760	0	4.53	3440	0	3440			27	5.41	14140	14163	0				14163	10723	0							470	2120	16287		
27	6522	751760	0	4.85	3900	0	3900			28	5.45	14290	14315	0				14315	10415	0							452	1810	16125		
28	6521	751510	250	5.16	4390	126	4264			29	5.53	14600	14622	123				14499	10232	3							401	1560	16182		
29	6514	749270	1740	5.45	4860	877	5383			30	5.60	14880	14905	655				14050	10045	22							385	1440	16345		
30	6500	746280	3490	5.91	5660	1760	3900			31	5.75	15480	15503	1716				13787	9843	44							370	1480	16283		
31	6483	742880	4200	6.85	5910	2118	3792			Jun 1	5.70	15280	15303	2065				13238	9393	53							379	1400	16703		
1	6464	737380	1700	6.10	6000	2370	3630			2	5.45	15080	15104	2311				12793	2104	59							353	1220	16324		
2	6444	732440	4940	6.10	6000	2491	3509			3	5.63	15000	15023	2429				12594	9023	62							329	1070	16093		
3	6422	727000	3440	6.10	6000	2743	3257			4	5.59	14840	14866	2674				12192	8866	69							306	740	15811		
4	6400	721560	5440	6.11	6020	2743	3277			5	5.63	15000	15024	2674				12350	9004	69							285	820	15845		
5	6379	716400	5160	6.11	6020	2602	3418			6	5.69	15240	15264	2537				12727	9244	65							278	780	16044		
6	6356	710760	5640	6.26	6300	2844	3456			7	5.81	15720	15744	2773				12971	9444	71							308	994	16878		
7	6332	704860	5900	6.32	6420	2975	3445			8	5.83	15800	15824	2901				12923	9404	74							323	1020	16844		
8	6308	698370	5890	6.30	6380	2970	3410			9	5.83	15800	15823	2896				12927	9443	74							313	956	16779		
9	6283	692860	6110	6.29	6360	3080	3280			10	5.78	15600	15624	3003				12621	9264	77							329	1080	16674		
10	6250	686030	6830	6.30	6380	3443	2937			11	5.68	15200	15223	3357				11866	8843	86							339	1100	16323		
11	6226	673960	7070	6.32	6420	3564	2856			12	5.59	14840	14864	3475				11374	8429	89	0						374	850	15945		
12	6194	671170	7790	6.34	6460	3927	2533	15	6435	13	5.51	14520	14543	3829	39	10675	5043	98	1	8442	3704	38	115	1	289	840	15390				
13	6153	661720	9450	6.70	7170	4764	2406	45	7215	14	5.53	14600	14624	4645	44	9935	7409	119	1	7529	4506	43	132	1	287	780	15834				
14	6111	651070	10850	6.83	7430	5369	2061	50	7480	15	5.51	14520	14543	5235	48	9260	7063	134	2	7199	5078	17	157	1	276	790	14832				
15	6066	640230	10840	6.80	7370	5465	1905	50	7420	16	5.59	14060	14082	5328	49	8705	6662	137	1	6880	5164	48	160	1	268	668	14467				
16	6020	629160	11070	6.81	7390	5581	1809	50	7440	17	5.52	13780	13799	5441	48	8310	6359	140	2	6301	5278	47	163	1	262	668	13971				
17	5984	620330	8630	6.12	6040	4351	1689	52	6892	18	5.85	12780	12763	4842	51	8470	6671	109	1	6781	4115	49	127	2	267	668	13971				
18	5972	617670	2880	H.D.	2900	1442	1458	50	2950	19	4.35	10200	10211	1406	48	8757	7261	36	2	7892	1363	47	43	1	282	668	13971				
19	5942	61230	2390	4.06	2810	1205	1605	50	2860	20	4.10	9340	9351	1175	49	8127	6491	30	1	6522	1119	47	36	2	281	668	13971				

DAILY SUMMARY OF DATA AT AND BETWEEN

LEXBURG		HEISE RILEY		DIV. HEISE-WOOD			WOOD THEO		WOODVILLE				TOR-WOOD		HEISE-WOODVILLE				DIVWOOD BLACK			BLACK THEO		BLACKFOOT DIV			WOOD-BLACK			
CHGE	DISCH	REBURG	1926	TOTAL	STD.	NOR.	BAL.	GAL	DISCH	STD.	NOR.	STD.	L.TL	TOT.	GAL	STD.	L.TL	GAL	NOR.	TOTAL	STD.	NOR.	BAL.	DISCH	STD.	NOR.	TOT.	GAL	STD.	NOR.
4.97	2190	11754	Mar 10	5764		5764	5990	714	6640		6640				650		650	3032		3032	3608	3580		3580		28				
4.55	1840	10661	11	5703		5703	4958	685	5700		5700				742		742	2914		2914	2786	2800		2800		14				
4.14	1520	9815	12	5646		5646	4172	660	4950		4950				778		778	2826		2826	2124	2120		2120		4				
3.80	1280	9168	13	6049		6049	3119	623	4070		4070				971		971	2566		2566	1524	1480		1480		44				
3.49	1070	8616	14	6452		6452	2164	592	3270		3270				1106		1106	2238		2238	1032	1010		1010		22				
3.17	895	8190	15	6408		6408	1782	556	2590		2590				808		808	2147		2147	443	415		415		28				
2.98	795	8119	16	6668		6668	1451	527	2140		2140				689		689	1641		1641	499	164		164		335				
2.99	805	8496	17	7204		7204	1292	523	2080		2080				788		788	1661		1661	419	61		61		355				
3.26	945	9504	18	7960		7960	1544	532	2210		2210				666		666	1942		1942	265	3		3		265				
3.74	1240	10493	19	8076		8076	2417	563	2710		2710				293		293	2428		2428	202	7		7		275				
3.76	1250	10473	20	7829		7829	2644	574	2920		2920				276		276	2641		2641	279	108		108		171				
3.79	1270	11215	21	7758		7758	3457	6.07	3590		3590				133		133	2950		2950	640	499		499		141				
4.58	1890	14300	22	8005		8005	6295	6.87	5760		5760				- 535		- 535	3241		3241	2519	2060		2060		459				
4.95	2250	18354	23	7953		7953	10401	8.09	10000		10000				- 401		- 401	3390		3390	6610	6280		6280		330				
4.83	2160	19832	24	8096		8096	11736	8.57	11790	1775	18015	9		54	64	118	3442		3442	8348	8130	1667	6461		218	106				
5.15	2490	21315	25	8056		8056	13259	8.95	13340	1413	11927	7		81	51	132	3393		3393	9947	9530	1328	522		417	85				
5.49	2840	21313	26	7984		7984	13329	9.03	13530	593	12937	3		201	21	222	3036	- 435	3471	10434	10000	966	9024		494	62				
5.23	2600	19113	27	8009		8009	11104	8.53	11630	238	11392	1		526	8	534	2885	- 597	3482	8745	8240	785	7437		505	50				
4.70	2120	16283	28	8185		8185	8098	7.75	8770	0	8770	0		672	0	672	2903	- 600	3503	5067	5400	564	4836		467	36				
4.32	1810	16125	29	8269		8269	7856	7.51	7720	0	7920	0		64	0	64	2893	- 600	3493	5027	4760	564	4186		267	36				
4.01	1560	16182	30	8165		8165	8017	7.55	8060	118	7942	1		43	5	48	2890	- 600	3490	5170	4740	675	4265		230	43				
3.85	1440	16345	31	8219		8219	8126	7.67	8480	820	7660	4		354	35	389	2897	- 600	3497	5583	5340	1335	4025		243	85				
3.90	1490	16983	Jun 1	8222		8222	8761	7.82	9020	1634	7386	8		259	82	341	2901	- 600	3501	6119	5830	2100	3720		289	134				
3.79	1400	16703	2	8226		8226	8477	7.81	8770	1957	7003	10		513	78	591	2892	- 600	3492	6098	5760	2432	3308		338	155				
3.55	1220	16324	3	8304	11	8293	8020	7.68	8520	2220	6300	11		500	80	580	2874	- 600	3474	5646	5300	2651	2649		346	169				
3.28	1070	16093	4	8267	18	8249	7826	7.57	8200	2326	5874	12		374	85	459	2890	- 600	3490	5310	5000	2750	2270		290	176				
3.08	945	15811	5	8237	17	8220	7574	7.52	7450	2564	5386	13		376	93	469	2896	- 600	3496	5054	4790	2974	1816		264	190				
2.85	821	15845	6	8186	33	8153	7657	7.53	7980	2548	5432	13		321	93	414	2890	- 600	3490	5090	4640	2959	1881		250	189				
2.78	780	16044	7	8190	49	8141	7854	7.60	8230	2328	5832	12		376	90	466	2901	- 600	3501	5329	5100	2818	2262		224	180				
3.08	934	16678	8	8176	49	8127	8502	7.78	8680	2602	6278	13		378	122	500	2913	- 600	3513	5967	5800	3010	2590		387	192				
3.23	1020	16844	9	8150	48	8102	8694	7.89	9270	2693	6577	14		576	160	736	2919	- 600	3519	6300	6090	3095	2945		261	148				
3.13	956	16779	10	8140	52	8088	8639	7.90	9310	2668	6642	14		671	176	847	2896	- 600	3496	6414	6100	3012	3108		234	196				
3.29	1050	16674	11	8077	53	8024	8597	7.94	9450	2789	6661	14		853	161	1014	2855	- 600	3455	6595	6230	3106	3104		305	203				
3.39	1100	16323	12	8016	52	7964	8307	7.85	9130	3184	5946	16		823	121	944	2813	- 600	3413	6317	5940	3557	2363		375	227				
3.14	951	15945	13	8068	53	8015	7747	7.76	8510	3316	5494	17		0	1063	121	0	1184	2834	- 600	3434	5976	5620	3631		192				
2.99	847	15390	14	7910	54	7856	7480	7.64	8450	3619	4771	19		0	970	134	1	1105	2785	- 600	3385	5665	5340	4022		13				
2.93	780	15404	15	7970	53	7917	7434	7.62	8300	4474	3826	22		0	866	161	1	1028	3140	- 235	3375	5160	4920	4427		493				
2.87	795	15338	16	7941	51	7890	7397	7.63	8340	5049	3291	25		1	943	182	2	1127	3411		3411	4929	4710	4746						
2.74	730	14812	17	7874	45	7831	6938	7.51	7920	5147	2773	26		0	982	186	1	1169	3301		3301	4539	4300	4838						
2.62	688	14467	18	7838	64	7771	6632	7.40	7530	5235	2295	26		0	848	189	1	1088	3417		3417	4113	3910	4921						
2.61	668	13431	19	5189	- 234	7823	8242	7.40	7530	6477	1053	21		0	- 712	148	2	- 562	1953	- 1456	3409	5577	5520	2457						
2.58	654	10865	20	3758	- 340	7268	7107	7.39	7500	4913	2587	7		0	393	50	1	444	1187	- 2226	3413	6313	6000	6711						
2.64	687	10078	21	3351	- 3675	7026	6687	7.22	6910	4835	2075	6		1	223	62	3	288	1138	- 2252	3390	5772	5470	6662						

R IDAHO

NEELEY			CLARK NEELEY	DATE	LAKE WILCOTT			NS MIN CAN.			SS MIN CAN		NS+SS MIN CANALS		MINIDOK II			NEELEY MINID.	DATE	LAKE MIL		P.A. LAT		NSTFCAN		P.A.+NSTFCAN			
NO.	STD.	NOR.	GRIN		GAGE	CAPAC.	DRAFT	GAGE	DISCH.	GAGE	DISCH.	TOTAL	STD.	NOR.	BAL.	GAGE	DISCH.			STR.	NOR.	LOSS	1926	GAGE	DISCH.	GAGE	DISCH.	TOTAL	STD.
600	760	8700	2824	Mar 2	45.39	29880	-181	9.44	1490	5.62	1060	2550	0	2550	6729	6.84	6500	350	6150	229	Mar 5	10.79	194	55	861	2970	3025	-125	3120
610	991	8619	2364	3	45.44	100490	-308	9.45	1490	5.58	1090	2530	0	2530	6772	6.82	6440	351	6089	332	4	10.84	194	55	851	2910	2965	-124	3080
610	492	2118	2550	4	45.51	101330	-423	9.44	1490	5.61	1050	2540	0	2540	6647	6.73	6210	-368	6578	437	5	10.82	193	54	844	2880	2734	-251	3180
610	653	8927	2447	5	45.57	102290	-484	9.44	1490	5.64	1060	2550	0	2550	6576	6.78	6340	-37	6377	236	6	10.97	193	54	859	2900	2754	-231	3180
610	1390	8110	3102	6	45.57	102290	0	9.45	1490	5.65	1060	2550	440	2110	6750	6.81	6420	420	6000	530	7	10.97	193	54	860	2900	2754	-46	3000
610	1306	7204	3037	7	45.44	100490	907	9.44	1490	5.65	1060	2550	646	1904	7567	6.76	6290	290	6000	1277	8	10.78	192	54	843	2810	2864	-176	3000
610	181	3673	2159	8	45.46	100730	-121	9.43	1490	5.64	1060	2540	0	2540	6199	6.61	5900	-239	6139	299	9	10.78	193	54	842	2810	2864	-275	3139
610	381	9031	2320	9	45.45	100610	60	9.45	1490	5.62	1051	2540	0	2540	6170	6.53	5690	-801	6471	480	10	10.74	193	54	839	2790	2844	-341	3185
610	178	8262	2669	10	45.50	101210	-302	9.45	1490	5.56	1030	2520	289	2262	5618	6.58	5820	-180	6000	-202	11	10.80	190	53	844	2820	2873	-127	3000
610	1317	7163	2928	11	45.54	101670	-242	9.45	1490	5.54	1020	2510	784	1726	5728	6.60	5870	433	5437	-142	12	10.86	191	54	849	2840	2894	-127	2437
610	2419	6371	2777	12	45.53	101570	60	9.45	1490	5.56	1030	2520	774	1726	6330	6.60	5870	1225	4645	460	13	10.79	184	49	847	2830	2879	-234	145
610	3092	5628	2815	13	45.52	101450	60	9.45	1490	5.56	1020	2510	784	1726	6270	6.57	5790	1088	3902	480	14	10.74	176	45	850	2850	2895	-195	952
610	5479	4931	2569	14	45.47	100350	303	9.45	1490	5.58	1030	2520	989	1531	6193	6.57	5790	2390	3400	403	15	10.76	182	48	845	2820	2865	-248	400
610	4240	4200	2447	15	45.38	99760	550	9.45	1490	5.60	1030	2520	1720	800	6470	6.58	5820	2420	3400	650	16	10.81	182	48	847	2830	2875	-248	400
610	4557	3743	2466	16	45.21	97720	1029	9.44	1490	5.57	1020	2510	2167	343	6619	6.56	5770	2370	3400	849	17	10.60	182	48	830	2750	2798	-238	400
610	5056	3044	2366	17	45.32	99040	-666	9.44	1490	5.57	1020	2510	2510	0	4924	6.65	6000	2956	3044	-1076	18	10.82	181	48	848	2840	2885	-250	358
610	6044	2816	1467	18	45.48	100970	-973	9.47	1490	5.60	1030	2520	2520	0	5367	6.51	5640	2824	2816	-273	19	10.78	182	48	847	2830	2878	-257	351
610	6629	2671	3790	19	45.37	99880	590	9.45	1490	5.64	1040	2530	2530	0	7340	6.36	5260	2569	2691	2080	20	10.52	180	47	H.D.	2170	2217	-1900	317
610	4842	2588	3020	20	45.43	100370	-247	9.44	1490	5.64	1040	2530	2530	0	4653	5.54	3400	812	2588	1253	21	10.45	181	48	846	2830	2885	-252	304
610	3609	2551	2534	21	45.48	100970	-303	9.47	1490	5.67	1050	2540	2540	0	3317	5.16	2720	167	2551	597	22	10.40	182	48	843	2830	2885	-250	300
610	3135	2555	2760	22	45.35	99760	610	9.45	1490	5.64	1040	2530	2530	0	3770	5.13	2670	115	2555	1106	23	10.25	182	48	852	2830	2885	-250	301
610	2288	2612	2736	23	45.22	97840	968	9.43	1480	5.60	1020	2500	2500	0	3768	5.17	2730	118	2612	638	24	10.06	182	48	852	2830	2885	-250	307
610	316	4264	2841	24	45.33	99160	-666	9.44	1490	5.63	1030	2520	1656	864	1394	5.17	2730	-670	3400	-1336	25	10.20	182	48	850	2830	2885	-250	300
610	2363	8713	1930	25	45.60	102410	-1639	9.46	1490	5.67	1040	2530	217	2313	1781	5.32	2990	-010	6000	-1209	26	10.25	182	48	852	2830	2885	-250	300
610	1025	8555	2325	26	45.79	104700	-1155	9.45	1490	5.67	1040	2530	0	2530	3848	5.51	3340	-2688	6025	505	27	10.10	182	48	847	2830	2885	-250	300
610	2242	10242	2514	27	45.85	105430	-368	9.44	1490	5.67	1040	2530	-812	3342	5702	5.55	3420	-3480	6900	1682	28	10.22	182	48	850	2830	2885	-250	300
610	4425	10955	1213	28	45.87	105670	-121	9.45	1490	5.68	1040	2530	-1525	4055	3879	5.50	3320	-3580	6900	539	29	10.33	186	51	H.D.	345	356	-2784	3185
610	3195	9445	1817	29	45.84	105310	182	9.45	1490	5.68	1030	2520	0	2520	3912	5.34	3020	-3905	6925	892	30	10.10	H.D.	4	H.D.	47	51	-3134	3185
610	913	7193	2639	30	46.02	107490	-1099	9.44	1490	5.72	1040	2530	804	1726	2651	5.62	3560	-1907	5467	-909	31	10.72	183	49	H.D.	1820	1869	-708	2467
610	1176	6884	2420	31	46.08	108240	-378	9.46	1490	5.68	1030	2520	794	1726	4862	6.57	5790	932	4838	-928	Jun. 1	10.85	183	49	860	2820	2869	-1071	1858
610	2312	6588	2714	Jun 1	46.02	107490	378	9.44	1490	5.69	1030	2520	794	1726	6758	6.63	5790	1088	4862	805	2	10.94	182	48	865	2840	2885	-1026	1862
610	2444	6276	2280	2	46.02	107490	0	9.44	1490	5.73	1040	2530	804	1726	6190	6.65	6000	1450	4550	190	3	11.08	182	48	876	2900	2948	-1348	1856
610	2730	5950	2335	3	45.99	107110	192	9.45	1490	5.73	1040	2530	804	1726	6342	6.62	5920	1896	4224	427	4	11.08	183	49	878	2900	2949	-1725	1224
610	2940	5570	2396	4	45.92	106270	424	9.45	1490	5.74	1040	2530	804	1726	6404	6.53	5690	1846	3844	714	5	10.96	182	48	865	2840	2885	-2044	844
610	3596	4884	2428	5	45.90	106030	121	9.45	1490	5.73	1040	2530	1846	1484	6071	6.52	5660	2260	3400	411	6	10.97	183	49	863	2830	2879	-2479	400
610	3613	4587	2403	6	45.86	105530	242	9.45	1490	5.72	1030	2520	1333	1187	5922	6.46	5510	2110	3400	412	7	10.78	183	49	847	2830	2879	-2479	400
610	3919	4151	2504	7	45.77	104460	550	9.45	1490	5.68	1020	2510	1759	751	6110	6.48	5360	2160	3400	550	8	10.72	182	48	842	2810	2878	-458	700
610	3747	4253	2359	8	45.66	103140	666	9.46	1490	5.69	1020	2510	1657	853	6756	6.52	5660	2260	3400	496	9	10.74	183	49	840	2800	2849	-2449	400
610	3553	4577	2486	9	45.63	102780	182	9.46	1490	5.73	1030	2520	1343	1177	5792	6.52	5660	2260	3400	132	10	10.74	183	49	840	2800	2849	-2449	400
610	3375	4965	2575	10	45.56	101930	429	9.46	1490	5.73	1030	2520	955	1565	6249	6.50	5610	2210	3400	639	11	10.66	182	48	832	2760	2808	-2408	400
610	2968	5572	2286	11	45.52	101450	242	9.																					

STU	P.A. N. ST. FCANAL				S. ST. FCANAL				MIL. LOW LIFT CAN.				MIL. THEO.				MIN. MIL. LOSS	
	GAGE	DISCH	TOTAL	STD.	NOR.	GAGE	DISCH	STD.	NOR.	GAGE	DISCH	STD.	NOR.	BAL.	GAGE	DISCH		STD.
861	2970	3025	-125	3150	10.38	3560	560	3000	290	103	103	0	-168	1.68	25	25	0	213
851	2910	2965	-124	3089	9.96	3300	300	3000	H.D.	95	95	0	80	1.86	24	24	0	213
844	2880	2934	-251	3185	9.74	3170	-223	3393	287	102	102	0	4	1.81	22	22	0	56
859	2900	2954	-46	3000	10.26	3490	198	3192	290	103	103	0	-107	1.77	20	20	0	18
860	2900	2954	-46	3000	9.73	3160	160	3000	291	104	104	0	-128	1.72	19	19	0	127
843	2810	2864	-275	3139	9.52	3030	30	3000	291	104	104	0	162	1.67	17	17	0	147
842	2810	2864	-275	3139	9.54	3040	-266	3306	H.D.	93	93	0	-287	1.67	17	17	0	145
839	2790	2844	-127	3000	9.56	3040	40	3000	291	104	104	0	-197	1.62	15	15	0	115
844	2820	2873	-457	2437	9.54	3030	30	3000	293	104	104	0	-158	1.66	16	16	0	304
849	2840	2894	1234	1645	9.47	2990	-10	3000	292	104	104	0	-103	1.67	16	16	0	212
847	2830	2879	1993	902	9.45	2970	-30	3000	290	103	103	0	-178	1.68	17	17	0	174
850	2850	2895	2468	400	9.44	2960	-40	3000	290	103	103	0	-141	1.65	16	16	0	119
845	2820	2868	2478	400	9.44	2950	-56	3000	291	104	104	0	-112	1.65	16	16	0	195
847	2830	2878	2398	400	9.44	2950	-50	3000	290	103	103	0	-81	1.64	15	15	0	157
830	2750	2798	2530	358	9.44	2940	254	2686	289	102	102	0	70	1.64	15	15	0	128
848	2840	2888	2547	331	9.17	2780	295	2485	290	103	103	0	-121	1.64	15	15	0	96
847	2830	2878	317	8.75	2550	176	2374	289	102	102	0	391	1.63	15	15	0	-35	
H.D.	2170	2217	282	304	8.73	2540	256	2284	289	102	102	0	172	1.60	14	14	0	136
296	538	586	220	300	8.74	2550	299	2251	288	102	102	0	-452	1.55	13	13	0	-376
273	472	520	163	301	8.75	2550	296	2254	287	102	102	0	-446	1.52	12	12	0	-158
252	416	464	157	307	8.73	2540	235	2305	287	102	102	0	-376	1.52	12	12	0	465
252	416	464	59	400	8.83	2600	-400	3000	287	102	102	0	-431	1.52	12	12	0	458
250	411	459	-2541	3000	9.53	2990	-10	3000	287	102	102	0	-431	1.52	12	12	0	388
250	411	459	-2574	3025	9.52	2980	-20	3000	288	102	102	0	-561	1.52	12	12	0	443
247	403	451	-2726	3185	9.57	3010	-590	3600	288	102	103	-1	103	-157	149	12	0	573
250	411	459	-2789	3185	9.56	3000	-600	3600	288	102	103	-1	103	-157	149	12	0	205
H.D.	345	396	-3134	3185	9.54	2990	-610	3600	284	100	-3	103	-176	149	12	0	12	163
H.D.	47	51	283	100	-3	103	-121	222	43	6	37	164	149	12	0	12	188	
H.D.	1820	1869	-598	2467	9.58	3020	20	3000	283	100	100	0	-1429	1.52	12	12	0	164
860	2820	2869	1011	1888	9.55	3000	0	3000	283	100	100	0	-1429	1.52	12	12	0	1441
865	2840	2888	1026	1862	9.55	3000	0	3000	285	100	100	0	-179	1.53	13	13	0	192
876	2900	2948	1398	1550	9.54	2990	-10	3000	285	100	100	0	-38	1.55	13	13	0	51
875	2900	2949	1725	1224	9.56	3000	0	3000	267	88	88	0	-26	1.71	19	19	0	45
865	2840	2888	2044	844	9.55	3000	0	3000	263	86	86	0	-115	1.84	22	22	0	137
863	2830	2879	2479	400	9.54	2990	-10	3000	263	86	86	0	-284	1.59	14	14	0	298
847	2830	2879	2479	400	9.55	3000	0	3000	264	86	86	0	-295	1.57	14	14	0	309
842	2810	2858	2458	400	9.54	2990	-10	3000	263	86	86	0	-455	1.55	13	13	0	468
840	2800	2847	2449	400	9.55	3000	0	3000	263	86	86	0	-374	1.53	13	13	0	387
840	2800	2847	2449	400	9.55	3000	0	3000	263	86	86	0	-275	1.52	12	12	0	287
832	2760	2808	2408	400	9.55	3000	0	3000	264	86	86	0	-275	1.50	12	12	0	287
834	2770	2819	2173	646	9.55	3000	0	3000	263	86	86	0	-284	1.46	11	11	0	295
823	2710	2758	1946	812	9.56	3000	0	3000	258	83	83	0	-242	1.46	11	11	0	253
817	2680	2729	1926	803	9.55	3000	0	3000	250	79	79	0	-277	1.48	11	11	0	286
812	2650	2699	2299	400	9.55	3000	0	3000	245	76	76	0	-165	1.48	11	11	0	176
817	2680	2728	2328	400	9.57	3010	10	3000	205	57	57	0	-146	1.46	11	11	0	157
820	2700	2749	2349	400	9.55	3000	0	3000	208	58	58	0	-197	1.48	11	11	0	241
809	2640	2689	2337	352	9.55	3000	357	2643	195	52	52	0	-230	1.48	11	11	0	208
802	2600	2649	2349	300	9.54	2990	742	2248	208	58	58	0	-197	1.48	11	11	0	147
807	2630	2679	2382	297	9.56	3000	769	2231	205	57	57	0	-136	1.48	11	11	0	104
815	2670	2719	2414	365	9.56	3000	716	2284	220	64	64	0	-93	1.48	11	11	0	112
818	2670	2719	2435	284	9.54	2990	863	2127	H.D.	57	57	0	-101	1.48	11	11	0	146
810	2640	2691	2435	276	9.56	3000	927	2071	200	54	54	0	-133	1.56	13	13	0	270
804	2580	2629	2342	267	9.55	3000	847	2153	H.D.	57	57	0	-256	1.60	14	14	0	398
									H.D.	35	35	0	-386	1.52	12	12	0	461
									213	60	60	0	-449	1.51	12	12	0	

VALUES ARE GIVEN IN SECOND FEET UNLESS OTHERWISE NOTED AT TOP OF COLUMN

1926 DISTRIBUTION WATER DISTRICT NO. 36

DATE	JACKSON LAKE			MORAN			TWINLAKES		DATE	HEISE					MORAN-HEISE			LORENZO		M-L		REXBURG				
	GAGE	CAPX	FT DRAIN	DISCH	STD	NOR	DISCH	MORAN		1926	GAGE	DISCH	RILEY	STD	TLK	NOR	TOTGN	L STD	L TL	GN	STD	TLK	L STD	L TL	GAGE	DISCH
JUN 20	5244	610980	4300	470	3680	2163	1512	53	3733	21	424	9640	9633	2114	51	7488	5920	54	2	3976	1965	41	197	4	257	805
21	5322	605720	526	497	4080	2652	1428	48	4128	22	429	9640	9656	2506	47	7023	5525	66	1	3595	2308	43	198	4	275	852
22	5380	595730	9990	H.D.	6750	5037	1713	46	6796	23	468	10870	10885	4911	45	5929	4089	126	1	4216	4591	42	320	3	283	79
23	5270	581490	4240	752	8900	7179	1721	46	8946	24	528	12900	12911	7000	44	5867	3965	179	2	4146	6651	42	349	2	269	72
24	5758	566850	14640	765	9190	7381	1809	46	9236	25	544	13510	13520	7196	45	6279	4284	185	1	4470	6929	43	267	2	258	678
25	5696	552250	14600	765	9190	7361	1829	46	9236	26	546	13590	13600	7177	45	6378	4364	184	1	4549	6962	44	215	1	247	636
26	5634	537750	14500	767	9230	7310	1920	45	9275	27	545	13550	13563	7127	44	6392	4288	183	1	4472	6913	43	214	1	263	805
27	5570	522820	14930	777	9500	7527	1973	44	9544	28	550	13740	13757	7339	43	6375	4213	188	1	4462	7119	42	220	1	289	842
28	5304	507480	15340	783	9590	7734	1856	42	9632	29	553	13860	13876	7541	41	6224	4244	193	1	4438	7315	40	226	1	284	821
29	5437	492010	15470	783	9590	7799	1791	39	9627	30	551	13780	13796	7604	38	6154	4167	195	1	4363	7376	37	228	1	290	852
30	5378	478430	13580	746	8820	6847	1973	34	8854	Jul 1	545	13530	13566	6676	33	6857	4712	171	1	4884	6176	32	200	1	308	912
JUL 1	5325	466280	12150	703	7850	6126	1724	30	7880	2	521	12640	12653	5973	29	6653	4775	153	1	4929	5724	28	179	1	305	945
2	5271	453960	12320	701	7810	6211	1599	28	7838	3	511	12260	12275	6056	27	6192	4437	155	1	4593	5874	26	182	1	305	945
3	5217	441680	12280	700	7790	6191	1599	25	7815	4	510	12220	12233	6036	24	6173	4418	155	1	4574	5855	23	181	1	310	979
4	5161	429020	12660	701	7810	6284	1426	20	7830	5	507	12110	12121	6224	20	5877	4291	160	0	4451	6037	19	187	1	309	979
5	5106	416610	12410	688	7540	6257	1283	20	7560	6	498	11780	11791	6101	19	5671	4231	156	1	4388	5718	18	183	1	312	1006
6	5051	404300	12310	682	7410	6205	1205	20	7430	7	493	11600	11615	6050	20	5545	4185	155	0	4340	5868	19	182	1	303	951
7	5005	394020	10280	683	7430	5183	2247	20	7450	8	498	11780	11801	5053	19	6729	4351	130	1	4482	4901	15	152	1	321	1066
8	4961	384260	9760	673	7230	4921	2309	20	7250	9	498	11780	11785	4798	20	6967	4335	123	0	4658	4654	19	144	1	330	1126
9	4914	373850	10410	652	6310	5248	1562	20	6830	10	490	11480	11500	5117	19	6364	4670	131	1	4802	4963	18	154	1	316	1046
10	4866	353290	10560	643	6630	5324	1306	20	6650	11	475	10940	10964	5191	20	5753	4314	133	0	4447	5035	19	156	1	289	89
11	4817	352550	10740	642	6610	5415	1195	17	6627	12	470	10760	10777	5280	16	5481	4150	135	1	4286	5122	16	158	0	268	78
12	4767	341660	10890	640	6570	5490	1080	15	6585	13	466	10620	10630	5353	15	5262	4046	137	0	4182	5192	15	161	0	252	7
13	4719	331240	10420	639	6550	5253	1297	15	6565	14	462	10480	10493	5122	15	5256	3926	131	0	4059	4968	15	154	0	245	67
14	4670	320680	10560	639	6550	5324	1226	15	6565	15	462	10480	10492	5191	15	5286	3927	133	0	4062	5035	15	156	0	259	74
15	4620	309950	10730	639	6550	5410	1140	15	6565	16	456	10260	10273	5275	15	4983	3708	135	0	3843	5117	15	158	0	273	816
16	4566	298870	11080	642	6610	5586	1024	13	6623	17	451	10200	10212	5446	13	4753	3589	140	0	3729	5283	15	163	0	278	84
17	4515	287630	11240	643	6630	5667	963	12	6642	18	453	10160	10175	5525	12	4638	3533	142	0	3675	5357	12	166	0	271	816
18	4463	276700	10930	643	6630	5511	1119	12	6642	19	457	10300	10322	5373	12	4937	3680	138	0	3818	5212	12	161	0	282	874
19	4414	266440	10260	638	6530	5173	1357	11	6541	20	458	10340	10363	5044	11	5308	3822	129	0	3951	4893	11	151	0	293	93
20	4361	255440	11000	640	6570	5546	1024	10	6580	21	451	10090	10111	5407	10	4694	3531	139	0	3670	5245	10	162	0	290	91
21	4306	244070	11320	640	6570	5732	838	10	6580	22	447	9950	9971	5589	10	4372	3391	143	0	3534	5421	10	168	0	274	836
22	4251	232840	11230	632	6420	5662	758	10	6430	23	443	9810	9831	5520	10	4301	3401	142	0	3543	5354	10	166	0	287	906
23	4198	222030	10810	619	6170	5450	720	10	6180	24	435	9540	9560	5314	9	4237	3380	136	1	3517	5127	9	187	0	236	923
24	4145	211380	10650	613	6060	5369	691	8	6068	25	432	9440	9458	5235	8	4215	3390	134	0	3524	5063	8	172	0	287	9
25	4092	200750	10630	612	6040	5359	681	7	6047	26	429	9340	9357	5225	7	4125	3310	134	0	3444	5068	7	157	0	288	912
26	4038	190050	10700	612	6040	5395	645	0		27	427	9270	9287	5260	0	4027	3247	135	0	3382	5093	0	167	0	298	966
27	3984	179410	10640	611	6020	5364	656			28	430	9370	9387	5230		4157	3367	134		3501	5032		198		301	985
28	3930	168880	10530	612	6040	5309	731			29	432	9440	9456	5176		4280	3416	133		3549	5021		155		297	928
29	3875	158240	10640	612	6040	5364	676			30	429	9340	9356	5230		4126	3316	134		3480	5073		157		292	934
30	3820	147690	10550	611	6020	5319	701			31	423	9130	9147	5186		3961	3127	133		3260	5030		156		291	928
31	3767	137630	10060	592	5680	5072	608			AUG 1	418	8970	8987	4945		4042	3307	127		3434	4791		154		297	962
AUG 1	3715	127820	9810	582	5500	4946	554			2	408	8640	8654	4922		3832	3154	124		3278	4674		148		304	1006
2	3679	121080	6740	518	4420	3398	1022			3	400	8380	8395	3313		5082	3975	85		4060	3194		119		302	971
3	3655	116420	4460	412	2870	2248	642			4	359	7100	7110	2192		4918	4220	56		4276	2126		66		297	962
4	3637	113270	3380	391	2610	1689	921			5	395	6390	6395	1647		4748	3785	42		3027	1586		59		295	951
5	3616	109370	3900	391	2610	1966	644			6	327	6180	6184	1917		4247	3554	49		3603	1773		144		283	884
6	3594	105300	4070																							

DAILY SUMMARY OF DATA AT AND BETWEEN SNARK

REXBURG		WEISE RILEY	DATE	DIV WEISE-WOOD			WOOD THEO	WOODVILLE				LOR WOOD	HEISE-WOODVILLE				DIV WOOD-BLACK			BLACK THEO	BLACKFOOT BRIDGE			WOOD-BLACK								
GAGE	DISCH	REXBURG		TOTAL	STD	NOR.		BAL.	GAGE	DISCH	STD		NOR.	L STD	L TL	TOTON	L STD	L TL	GNOR		TOTAL	STD	NOR.	BHL	DISCH	STD	NOR.	TOTAL	STD	NOR.		
287	805	10458	JUN 22	3348	-3594	6942	7110	7.36	7390	5596	1794																					
295	852	10508	23	3388	-3345	6733	7120	7.43	7640	5764	1876																					
283	790	11675	24	4403	-2312	6715	7272	7.69	8550	6922	1628																					
269	726	13637	25	5908	-726	6634	7729	7.90	9310	7386	1924																					
258	678	14198	26	6868	343	6523	7330	7.71	8630	6592	2038																					
249	636	14236	27	6764	410	6554	7272	7.70	8590	6561	2029																					
283	805	14368	28	7076	527	6549	7292	7.73	8700	6395	2305																					
289	842	15399	29	7113	546	6567	7486	7.76	8810	6578	2232																					
284	821	14697	30	7079	525	6554	7618	7.78	8880	6773	2087																					
290	852	14648	JUL 1	6467	-82	6549	8181	7.91	9350	7438	1892																					
300	912	14478	2	5381	-1182	6563	9097	8.00	9670	7658	2012																					
305	945	13600	3	4997	-1530	6527	8603	7.99	9630	7322	2308																					
305	945	13220	4	4800	-1639	6439	8420	7.94	9450	7510	1940																					
310	979	13212	5	4753	-1695	6448	8459	7.95	9490	7544	1946																					
309	979	13100	6	5575	-857	6430	7527	7.82	9020	6883	2137																					
312	1000	12791	7	6235	-226	6461	6556	7.60	8230	6132	2098																					
303	951	12866	8	6340	-47	6387	6226	7.42	7600	5905	1695																					
321	1060	12861	9	6575	186	6389	6286	7.48	7810	4707	3103																					
330	1120	12905	10	6740	254	6492	6159	7.43	7810	4396	3414																					
316	1040	12540	11	6535	-102	6637	6005	7.40	7530	5058	2472																					
289	890	11854	12	6469	23	6446	5385	7.19	6810	5006	1804																					
268	780	11557	13	6613	121	6492	4944	7.01	6200	4991	1209																					
252	706	11336	14	6636	295	6391	4650	6.89	5820	4886	954																					
245	673	11166	15	6765	365	6400	4401	6.80	5540	4593	947																					
259	745	11237	16	6758	614	6144	4479	6.75	5390	4411	979																					
273	816	11089	17	6730	1127	5651	4309	6.70	5240	3977	1263																					
278	847	11059	18	6856	1488	5368	4203	6.65	5100	3782	1318																					
271	810	10985	19	6552	1346	5206	4433	6.61	4960	3798	982																					
282	874	11196	20	6249	1166	5083	4917	6.73	5330	4032	1298																					
293	934	11297	21	5946	836	5110	5357	6.85	5700	4044	1656																					
290	923	11034	22	6263	1190	5073	4771	6.84	5660	4039	1621																					
274	836	10807	23	6436	1366	5070	4371	6.72	5300	4038	1262																					
287	906	10737	24	6280	1267	5013	4457	6.68	5180	4070	1110																					
290	923	10463	25	6305	1274	5031	4178	6.62	5010	3836	1174																					
287	906	10364	26	6430	1526	4904	3934	6.57	4870	3520	1350																					
288	912	10269	27	6547	1638	4909	3722	6.50	4670	3412	1238																					
298	968	10255	28	6742	1778	4964	3513	6.38	4350	3289	1061																					
301	985	10372	29	6863	1872	4991	3509	6.34	4240	3135	1105																					
291	928	10384	30	6842	1838	5007	3542	6.35	4270	3161	1109																					
292	934	10290	31	6470	1441	5029	3820	6.36	4300	3607	693																					
291	925	10075	Aug 1	6240	1169	5071	3835	6.42	4150	3836	614																					
297	962	9949	2	5863	880	4983	4086	6.51	4700	3887	813																					
304	1000	9654	3	5838	742	5096	3816	6.52	4730	3909	821																					
302	991	9386	4	5238	383	4875	4128	6.48	4620	2795	1825																					
297	962	8072	5	5099	-428	5527	2993	6.20	3890	2543	1347																					
295	951	7346	6	5179	-666	5845	2167	5.86	3150	2246	904																					
283	884	7048	7	5146	526	4620	1902	5.62	2700	1238	1462																					
290	923	7057	8	5056	309	4747	2001	5.55	2580	1320	1060																					
284	890	7147	9	5090	216	4874	2051	5.61	2680	1533	1147																					
304	1000	7461	10	5172	655	4517	2289	5.76	2950	1044	1906																					
312	1050	7481	11	5155	651	4504	2326	5.85	3130	1234	1896																					
308	1030	7340	12	5209	614	4595	2131	5.88	3190	1245	1945																					
312	1050	7300	13	5197	432	4765	2183	5.83	3090	1146	1944																					

* MILNER LOW LIFE TRAIL

AMERICAN FALLS				MERS	COMP	NEELEY				CLOCK	DATE
GAGE	CAPAC	DRAFT AC FT	DRAFT SECT	INFLOW CL-N	INFLOW CL-N	GAGE	DISCH	STD	NOR	NEELEY GRIN	
0059	23100	-430	-217	1237	2486	5.97	8340	5944	2390	2637	1926
0065	23530	-430	-217	1200	2412	6.00	8440	6078	2362	2657	25
0090	25310	-1780	-897	1181	2374	6.00	8440	6186	2254	2397	26
0107	26590	-1280	-645	1189	2390	6.13	8900	6660	2240	2255	27
0118	27490	-900	-454	1193	2398	6.02	8510	6182	2328	2584	28
0122	27820	-330	-166	1181	2374	5.92	8170	5866	2304	2356	29
0123	27900	-80	-40	1182	2376	5.93	8200	5904	2296	2440	30
0120	27650	250	126	1205	2422	5.92	8170	5768	2402	2414	1
0117	27410	240	121	1221	2434	5.91	8130	5666	2464	2479	2
0121	27730	-320	-161	1233	2478	5.93	8200	5822	2378	2481	3
0127	28220	-490	-247	1229	2470	5.96	8300	5890	2410	2427	4
0136	28960	-740	-373	1227	2466	5.92	8170	5764	2406	2463	5
0156	30590	-1630	-822	1245	2503	5.82	7830	5397	2433	2372	6
0186	33040	-2450	-1235	1229	2470	5.90	8100	5720	2380	2505	7
0219	35930	-2890	-1457	1238	2488	5.96	8300	6002	2298	2347	8
0248	38600	-2670	-1346	1247	2507	5.94	8240	5823	2417	2566	9
0269	40530	-1930	-973	1264	2541	5.88	8030	5539	2491	2563	10
0289	42370	-1840	-928	1269	2551	5.90	8100	5649	2451	2328	11
0301	43480	-1110	-559	1270	2553	5.93	8200	5647	2553	2429	12
0306	43990	-510	-257	1269	2551	5.86	7960	5469	2491	2537	13
0305	43890	100	50	1255	2523	5.71	7460	4897	2563	2400	14
0295	42920	970	489	1243	2499	5.68	7360	4841	2519	2401	15
0282	41720	1200	605	1239	2490	5.58	7040	4470	2570	2435	16
0266	40250	1470	741	1229	2470	5.53	6880	4370	2510	2289	17
0238	37680	2570	1296	1237	2486	5.53	6880	4424	2456	2604	18
0203	34460	3220	1624	1232	2476	5.55	6940	4414	2496	2586	19
0160	30920	3540	1785	1245	2503	5.63	7200	4777	2423	2505	20
0118	27490	3430	1729	1251	2515	5.61	7130	4735	2395	2721	21
0084	24880	2610	1316	1244	2501	5.52	6840	4449	2391	2634	22
0050	22460	2420	1220	1247	2507	5.56	6970	4593	2377	2600	23
0040	21750	710	358	1228	2468	5.25	6010	3662	2348	2472	24
0043	21960	-210	-106	1229	2470	5.03	5370	2990	2380	2546	25
0047	22250	-290	-146	1223	2458	5.04	5400	3022	2378	2496	26
0044	22030	220	111	1234	2480	5.08	5510	3130	2380	2309	27
0047	22250	-220	-111	1214	2440	5.14	5690	3260	2430	2391	28
0048	22320	-70	-35	1222	2456	5.12	5630	3224	2406	2515	29
0040	21750	570	287	1228	2468	5.11	5600	3152	2448	2473	30
0002	19040	2710	1366	1224	2460	5.44	6590	4190	2400	2444	31
9949	15800	3240	1634	1224	2460	5.38	7040	4610	2430	2496	Aug 1
9909	13370	2430	1225	1226	2464	5.40	6470	4012	2458	2285	2
9893	12470	900	454	1238	2488	5.23	5950	3445	2505	2296	3
9871	11670	800	403	1231	2474	5.18	5800	3353	2447	2577	4
9864	11010	660	333	1242	2496	5.07	5490	2941	2549	2447	5
9852	10410	600	302	1262	2537	5.07	5490	2971	2519	2368	6
9827	9160	1250	630	1273	2559	5.03	5370	2752	2618	2430	7
9794	7560	1600	807	1276	2565	4.92	5070	2400	2670	2553	8
9779	6960	600	302	1301	2615	4.52	4030	1308	2722	2518	9
9763	6320	640	323	1285	2583	4.53	4060	1448	2612	2687	10
9749	5750	570	287	1301	2615	4.44	3840	1163	2677	2653	11
9767	6480	-730	-368	1316	2645	4.44	3840	1217	2623	2808	12
9783	7120	-640	-323	1310	2633	4.68	4430	1794	2636	2463	13
9779	6960	160	81	1297	2607	4.80	4740	2030	2710	2629	14
9772	6680	280	141	1301	2615	4.77	4660	1926	2734	2669	15

LAKE WALCOTT			NSMINCAN	SSMINCAN	NS+SSMIN CANALS		MINID THEO	MINID				
GAGE	CAPAC	DRAFT	GAGE	DISCH	GAGE	DISCH	TOTAL	STD	NOR	BAL	GAGE	DISCH
45.88	105790	-489	8.81	1520	5.77	1010	2330	2330	0	5521	6.41	5380
45.93	106390	-303	9.12	1400	5.83	1030	2430	2430	0	5707	6.37	5260
46.00	107240	-429	9.43	1480	5.87	1040	2520	2520	0	5491	6.38	5310
46.02	107490	-126	9.46	1490	5.85	1040	2530	2530	0	6244	6.43	5440
46.00	107240	126	9.45	1490	5.86	1040	2530	2530	0	6106	6.43	5440
45.94	106510	368	9.45	1490	5.86	1040	2530	2530	0	6008	6.43	5440
45.90	106030	242	9.40	1430	5.86	1040	2520	2520	0	5922	6.49	5340
45.84	105310	363	9.28	1440	5.83	1040	2480	2480	0	6053	6.36	5770
45.82	105070	121	9.45	1490	5.83	1030	2520	2520	0	5751	6.53	5740
45.75	104220	429	9.41	1480	5.67	1040	2570	2520	0	6109	6.58	5820
45.71	103740	242	9.26	1440	5.88	1040	2480	2480	0	6062	6.50	5610
45.64	102900	424	9.25	1440	5.83	1040	2480	2480	0	6114	6.43	5440
45.62	102660	121	9.25	1440	5.88	1040	2480	2480	0	5471	6.38	5310
45.62	102660	0	9.25	1440	5.88	1040	2480	2480	0	5620	6.48	5560
45.67	103260	-303	9.26	1440	5.88	1040	2480	2480	0	5517	6.45	5480
45.66	103140	61	9.03	1390	5.88	1040	2430	2430	0	5871	6.43	5440
45.71	103740	-303	8.58	1260	5.78	1010	2290	2290	0	5437	6.28	5060
45.81	104940	-605	8.15	1190	5.73	991	2185	2181	0	5314	6.30	5110
45.86	105530	-308	7.94	1150	5.55	939	2089	2089	0	5803	6.28	5060
45.86	105530	0	7.94	1150	5.55	939	2089	2089	0	5871	6.30	5110
45.84	105310	121	7.93	1150	5.57	945	2095	2095	0	5486	6.28	5060
45.83	105190	60	7.94	1150	5.62	959	2109	2109	0	5311	6.09	4610
45.80	104820	187	8.08	1180	5.72	985	2165	2165	0	5062	6.10	4630
45.74	104100	363	8.15	1200	5.75	994	2194	2194	0	5049	6.10	4630
45.68	103380	363	8.14	1200	5.82	1020	2220	2220	0	5023	6.10	4630
45.62	102660	363	8.13	1190	5.83	1020	2210	2210	0	5093	6.12	4680
45.66	103140	-242	8.13	1190	5.67	1030	2220	2220	0	4738	6.11	4650
45.63	102780	182	8.14	1200	5.84	1040	2240	2240	0	5072	6.11	4650
45.59	102290	247	8.13	1190	5.74	1040	2230	2230	0	4857	6.12	4680
45.51	101330	484	8.14	1200	5.76	1040	2240	2240	0	5214	5.78	4350
45.47	100850	242	8.15	1200	5.78	1050	2250	2250	0	4402	5.40	3130
45.42	100250	302	8.17	1200	5.71	1030	2230	2230	0	3442	5.40	3130
45.41	100130	60	8.15	1200	5.49	962	2162	2162	0	3298	5.36	3060
45.43	100370	-121	8.08	1180	5.49	962	2142	2142	0	3247	5.36	3060
45.49	101090	-363	7.96	1150	5.46	953	2103	2103	0	3224	5.34	3020
45.54	101690	-302	7.93	1150	5.43	945	2095	2095	0	3233	5.34	3020
45.70	103620	-973	7.96	1150	5.47	956	2106	2106	0	2521	5.33	3000
45.82	105070	-731	7.97	1160	5.52	971	2131	2131	0	3728	5.48	3360
45.75	104220	429	7.93	1150	5.50	965	2115	2115	0	5354	6.3	4970
45.62	102660	786	7.94	1150	5.42	942	2092	2092	0	5164	6.14	4940
45.42	100250	1215	7.93	1150	5.41	939	2089	2089	0	5076	6.12	4890
45.17	97230	1523	7.93	1150	5.43	945	2095	2095	0	5228	6.17	5010
44.98	94930	1149	7.91	1140	5.42	942	2082	2082	0	4357	6.08	4800
44.76	92390	1291	7.93	1150	5.46	953	2103	2103	0	4678	6.00	4610
44.49	89250	1583	7.93	1150	5.40	936	2086	2086	0	4867	6.11	4870
44.31	87150	1059	7.91	1140	5.37	927	2067	2067	0	4062	6.1	3560
44.20	85870	645	7.93	1150	5.08	843	1995	1995	0	2680	5.08	2700
44.15	85290	292	7.94	1150	5.13	859	2009	2009	0	2343	4.92	2480
44.06	84240	529	7.93	1150	5.15	863	2015	2015	0	2354	4.84	2370
44.10	84700	-232	7.95	1150	5.13	859	2009	2009	0	1599	4.8	2290
44.20	85870	-390	7.96	1150								

MINIDOKA				WELLY MINID. LOSS	DATE 1926	LAKE MIL GAGE	P. LAT		NSTFCAN		PR-NSTFCANAL		SSTFCANAL				MIL. LOW LIFT CANAL				MILNER				MIN MIL LOSS		
SEC	DISCH	STD	NOR.				GAGE	DISCH	GAGE	DISCH	TOTAL	STD	NOR.	GAGE	DISCH	STD	NOR.	GAGE	DISCH	STD	NOR.	THEO BAL	GAGE	DISCH		STD	NOR.
41	5380	2964	2396	141	Jun 25	10.84	1.82	48	800	2520	2368	2286	282	9.56	3000	886	2114	217	62	62	0	250	150	12	12	0	262
37	5280	2918	2362	427	26	10.84	1.83	49	801	2490	2539	2261	278	9.53	3000	916	2084	218	63	63	0	322	150	12	12	0	334
38	5310	3056	2254	181	27	10.82	1.83	49	801	2460	2507	2244	265	9.53	3000	1011	1989	222	63	63	0	264	149	12	12	0	276
43	5440	3200	2240	804	28	10.86	1.84	49	813	2520	2567	2305	264	9.55	3000	1024	1976	222	63	63	0	194	149	12	12	0	206
43	5440	3112	2328	666	29	10.86	1.83	49	844	2620	2667	2395	274	9.55	3000	946	2054	220	64	64	0	293	150	14	14	0	307
53	5690	3386	2304	318	30	10.97	1.84	49	848	2640	2687	2418	271	9.97	3310	1277	2033	230	69	69	0	378	154	13	13	0	391
59	5840	3544	2296	82	Jul 1	10.70	1.83	49	848	2640	2687	2412	270	10.07	3370	1344	2026	227	68	68	0	287	154	13	13	0	300
56	5770	3368	2402	283	2	10.88	1.82	48	846	2630	2678	2395	283	10.06	3370	1251	2119	212	60	60	0	338	152	12	12	0	350
53	5740	3276	2464	9	3	10.80	1.83	49	849	2640	2687	2399	290	10.06	3370	1196	2174	H.D.	47	47	0	348	158	14	14	0	382
58	5820	3442	2378	299	4	10.88	1.76	45	853	2660	2705	2425	280	9.93	3270	1192	2098	H.D.	1	1	0	176	158	14	14	0	190
50	5610	3200	2410	432	5	10.87	1.76	45	838	2590	2635	2351	284	9.87	3260	1134	2126	H.D.	65	65	0	370	154	13	13	0	383
43	5440	3034	2406	674	6	10.74	1.73	43	786	2390	2433	2150	283	9.90	3270	1147	2123	281	102	102	0	365	152	12	12	0	377
38	5310	2877	2433	161	7	10.50	1.76	45	768	2300	2345	2057	286	9.89	3260	1113	2147	284	104	104	0	399	151	12	12	0	411
48	5560	3180	2380	60	8	10.70	1.76	45	773	2330	2375	2095	280	9.92	3280	1180	2100	284	104	104	0	199	151	12	12	0	211
45	5480	3182	2298	37	9	10.94	1.76	45	767	2300	2345	2075	270	9.88	3260	1232	2028	285	104	104	0	229	161	15	15	0	244
43	5440	3023	2417	431	10	10.86	1.76	45	762	2270	2315	2031	284	9.89	3260	1127	2133	284	104	104	0	239	154	13	13	0	252
28	5060	2369	2497	377	11	10.73	1.76	45	755	2240	2285	1992	293	9.89	3260	1062	2198	281	98	98	0	583	153	13	13	0	596
30	5110	2639	2451	204	12	10.70	1.76	45	750	2210	2255	1967	288	9.88	3260	1097	2163	279	98	98	0	503	152	12	12	0	515
28	5060	2507	2553	743	13	10.56	1.76	45	731	2120	2165	1865	300	9.90	3270	1017	2253	278	97	97	0	472	151	12	12	0	484
30	5110	2619	2491	761	14	10.58	1.75	44	726	2100	2144	1851	293	9.89	3260	1062	2198	274	95	95	0	389	152	12	12	0	401
28	5060	2497	2563	426	15	10.48	1.76	45	723	2090	2135	1833	302	9.59	2910	649	2261	270	93	93	0	78	151	12	12	0	90
09	4610	2091	2519	701	16	10.44	1.77	45	722	2080	2125	1829	296	9.20	2800	577	2223	270	93	93	0	403	150	12	12	0	420
10	4630	2060	2570	432	17	10.36	1.76	45	717	2060	2105	1803	302	9.21	2800	532	2268	H.D.	42	42	0	317	150	12	12	0	329
10	4630	2120	2510	419	18	10.32	1.76	45	703	1990	2035	1740	295	9.20	2800	585	2215	191	54	54	0	259	149	12	12	0	271
10	4630	2174	2436	393	19	10.30	1.75	44	699	1980	2024	1735	289	9.20	2800	633	2167	193	55	55	0	247	148	11	11	0	260
12	4680	2184	2496	413	20	10.12	1.76	45	693	1950	1995	1701	294	9.21	2800	598	2202	H.D.	63	63	0	178	148	11	11	0	189
11	4650	2227	2423	88	21	10.19	1.76	45	701	1980	2025	1740	285	9.21	2800	662	2138	270	89	89	0	264	149	12	12	0	276
11	4650	2255	2395	422	22	10.09	1.76	45	699	1980	2025	1743	282	9.21	2800	687	2113	267	88	88	0	263	148	11	11	0	274
12	4680	2289	2391	177	23	10.11	1.75	44	704	2000	2044	1763	281	9.20	2800	690	2110	265	86	86	0	250	150	12	12	0	282
28	4350	1973	2577	864	24	10.00	1.75	44	H.D.	984	1028	748	280	9.21	2800	703	2097	264	86	86	0	436	148	11	11	0	425
40	3130	782	2348	872	25	10.06	1.76	45	265	432	477	201	276	9.18	2790	718	2072	264	86	86	0	223	148	11	11	0	234
40	3130	750	2380	312	26	10.07	1.80	47	260	419	466	186	250	9.21	2800	700	2100	264	86	86	0	222	148	11	11	0	233
36	3060	682	2378	238	27	10.00	1.81	48	256	398	446	166	280	9.20	2800	702	2098	265	86	86	0	272	148	11	11	0	283
36	3060	680	2380	187	28	10.07	1.81	48	260	398	446	166	280	9.19	2790	690	2100	265	86	86	0	262	148	11	11	0	273
34	3020	590	2430	204	29	10.09	1.81	48	264	396	446	160	286	9.21	2800	636	2144	253	80	80	0	306	148	11	11	0	317
34	3020	614	2406	213	30	10.12	1.82	48	269	401	449	166	283	9.20	2800	677	2123	258	83	83	0	312	148	11	11	0	323
33	3000	552	2448	479	31	10.05	1.81	48	274	414	462	174	288	9.22	2810	630	2160	264	86	86	0	358	147	11	11	0	367
48	3360	960	2400	368	Aug 1	10.08	1.81	48	H.D.	1620	1668	1386	282	9.19	2790	672	2118	264	86	86	0	1184	148	11	11	0	1195
15	4970	2540	2430	384	2	10.00	1.81	48	737	2120	2168	1882	286	9.21	2800	656	2144	268	88	88	0	86	150	12	12	0	98
14	4940	2482	2458	224	3	10.04	1.81	48	726	2100	2148	1857	289	9.20	2800	631	2169	265	86	86	0	94	149	12	12	0	106
12	4890	2385	2505	186	4	9.94	1.81	48	716	2080	2128	1833	295	9.21	2800	590	2210	267	88	88	0	126	147	11	11	0	137
17	5010	2563	2447	218	5	9.94	1.81	48	713	2090	2138	1850	288	9.20	2800	641	2159	274	87	87	0	15	147	11	11	0	26
08	4800	2251	2547	243	6	9.88	1.81	48	708	2090	2138	1838	300	8.93	2650	401	2249	279	86	86	0	74	147	11	11	0	83
00	4610	2091	2519	68	7	9.84	1.81	48	708	2090	2138	1841	297	8.84	2600	378	2222	283	84	84	0	212	148	11	11	0	223
11	4870	2252	2618	3	8	9.81	1.81	48	H.D.	1560	1608	1300	308	8.83	2600	290	2310	283	84	84	0	578	148	11	11	0	587
D.	3560	890	2670	502	9	9.78	1.81	48	259	477	473	161	314	8.84	2600	244	2336	285	85	85	0	400	148	11	11	0	389
26	2700	22	2722	20	10	9.70	1.81	48	258	424	472	152	320	8.84	2600	196	2402	286	86	86	0	458	148	11	11	0	469
92	2480	132	2612	137	11	9.52	1.81	48	253	411	459	152	307	8.71	2530	225	2303	H.D.	82	82	0	591	148	11	11	0	602
94	2370	307	2677	16	12	9.32	1.81	48	252	408	456	141	315	7.75	2040	322	2362	H.D.	64	64	0	190	150	12	12	0	202
78	2290	333	2623	691	13	9.32	1.81	48	253	411	459	153	306	7.67	2000	293	2293	267	76	76	24	245	150	12	12	0	257
73	2250	386	2636	397	14	9.20	1.81	48	254	414	462	153	307	7.67	2000	305	2303	276	80	80	24	292	148	11	11	0	303
75	2250	460	2710	203	15	9.14	1.81	48	257	421	469	153	316	7.67	2000	370	2370	274	80	80	24	299	148	11	11	0	310
D.	2700	34	2734	315	16	9.29	1.81	48	H.D.	1620	1668	1344	319														

EXBURG		HEISE + RILEY	DATE	DIV HEISE-WOOD			WOOD THEO	WOODVILLE			LUM		
NO	DISCH	NO	1926	TOTAL	STD	NOR	BAL	GAGE	DISCH	STD	LUM		
815	1070	7120	14	5210	419	4791	2110	5.79	3010	1058	1952		
801	905	7125	15	5002	423	4579	2123	5.72	2890	980	1910		
807	906	6674	16	5017	424	4593	1657	5.59	2640	1074	1866		
806	901	6329	17	5038	365	4673	1491	5.43	2380	1258	1822		
806	901	6478	18	5034	417	4617	1444	5.31	2200	1256	1744		
891	920	6445	19	5246	237	5011	1197	5.29	2170	1526	1744		
801	905	6672	20	328	215	5113	1344	5.28	2150	1153	1744		
804	1000	6628	21	4920	184	4736	1705	5.29	2170	305	1744		
805	951	5083	22	4676	179	4497	1207	5.08	1890	12	1365		
805	801	5201	23	4614	185	4429	787	4.85	1630	52	1302		
802	879	5257	24	4520	203	4317	671	4.68	1460	162	1253		
802	879	5067	25	4723	205	4518	341	4.53	1330	562	1269		
873	831	5141	26	4713	195	4518	428	4.39	1210	681	1229		
868	805	5255	27	5242	586	4656	13	4.25	1100	910	120		
874	836	6136	28	5111	626	4485	1025	4.45	1260	1408	148		
873	831	6231	29	5173	567	4604	1058	4.75	1530	1185	343		
878	857	6367	30	5113	566	4547	1254	4.95	1740	435	1303		
883	884	6394	31	5079	591	4508	1295	5.08	1890	1151	737		
887	917	6347	SEPT 1	5023	632	4391	1324	5.11	1720	1322	528		
804	1000	6300	2	4986	629	4357	1314	5.13	1950	1208	742		
805	1010	6150	3	4642	640	4002	1508	5.17	2000	943	1057		
800	979	5939	4	4563	640	3923	1376	5.17	2000	762	1238		
827	1140	5970	5	4382	618	3964	1388	5.18	2010	4	2014		
822	1170	5920	6	4411	510	3901	1509	5.21	2050	332	1718		
827	1140	5570	7	4114	331	3783	1456	5.08	1890	283	1607		
809	1030	5110	8	3936	147	3789	1174	5.00	1790	313	1477		
808	1030	4990	9	3857	62	3795	1133	4.98	1770	308	1462		
811	1050	4900	10	4088	32	4056	812	4.78	1560	413	1147		
810	1060	4890	11	4410	31	4379	480	4.45	1260	352	908		
803	1020	4810	12	4505	20	4485	305	4.16	1030	365	665		
804	923	4663	13	4483	14	4469	180	3.86	826	448	378		
875	879	4579	14	4493	13	4480	86	3.69	724	368	356		
878	906	4606	15	4474	10	4464	132	3.58	658	371	287		
802	934	4614	16	4501	10	4291	313	3.77	772	447	325		
800	928	4588	17	4210	22	4188	378	3.78	778	354	424		
801	934	4564	18	4133	20	4113	431	3.75	760	426	334		
803	951	4521	19	4057	69	3988	464	3.78	778	374	404		
800	940	4510	20	4044	101	3943	466	3.96	892	350	542		
874	912	4482	21	3936	103	3833	546	4.08	976	373	603		
802	956	4506	22	4030	167	3863	476	4.10	990	380	610		
809	1000	4530	23	3877	57	3820	653	4.21	1070	397	673		
805	985	4465	24	3591	77	3514	874	4.27	1120	222	898		
805	991	4351	25	3714	0	3714	637	4.27	1120	221	899		
808	1070	4330	26	3681	0	3681	649	4.26	1110	227	883		
802	1100	4322	27	3498	0	3498	824	4.41	1230	144	1086		
807	1130	4314	28	3582	0	3582	732	4.53	1330	76	1254		
802	1100	4243	29	3633	0	3633	610	4.51	1310	145	1165		
818	1200	4302	30	3867	0	3867	433	4.50	1300	0	1300		
				44104						341738	372340		
				27953						16	148		
				252025	16234	635791	612076			713914	341722	372198	1793

DAILY SUMMARY OF DATA AT AND BETWEEN

WOODVILLE	HEISE-WOODVILLE			DIV. WOOD-BLACK			BLACK	BLACKFOOT BRIDGE			WOOD-BLACK			CUM		
	TOTGN	LSTD	L.T.L	TOTGN	STD	NOR	BAL	TOTGN	STD	NOR	TOTGN	STD	NOR			
900	121			1021	1204	1	1207	1806	1410	994	416	-396	67	-333	-128	
757	106			863	1188	1	1187	1692	1300	920	380	-392	59	-333	-163	
983	105			1088	1226	118	1108	1414	1070	899	171	-344	57	-287	-1	
889	151			1040	1555	590	963	825	505	628	-123	-320	40	-280	-104	
756	185			941	1709	767	922	431	323	441	-118	-168	38	-140	-147	
873	164			1137	1518	655	863	652	197	819	-422	-255	32	-203	-104	
806	122			928	1491	587	901	619	426	532	-106	-233	34	-159	-916	
462	57			497	1511	587	924	659	420	-265	691	-233	27	-250	-100	
683	10			693	1070	195	875	320	387	-195	782	-233	12	-245	-234	
843	28			871	862	1	861	768	588	48	507	-213	3	-210	-282	
789	73			862	796	1	795	664	417	151	266	-247	10	-237	-306	
989	131			1120	747	1	746	583	335	339	-4	-248	22	-226	-304	
782	176			958	702	1	701	508	266	639	-373	-242	41	-201	-249	
1087	170			1257	678	1	677	422	226	854	-628	-196	35	-141	-199	
235	129			364	801	152	649	459	208	1181	-973	-251	35	-176	-197	
472	64			536	1125	345	780	405	202	790	-586	-203	30	-153	-321	
486	36			522	1247	424	823	493	242	10	232	-251	1	-253	-590	
595	76			671	1306	429	871	584	342	671	-357	-242	43	-199	-227	
596	121			717	1098	416	652	822	592	873	-231	-230	13	-177	-26	
636	130			766	703	45	658	1247	975	1093	-118	-272	70	-202	-166	
492	127			619	706	65	641	1294	1020	825	195	-274	53	-221	-3	
624	137			761	707	66	641	1293	1030	684	376	-263	42	-221	-35	
622	69			691	698	63	635	1312	1030	-63	1093	-282	4	-286	-142	
541	97			638	856	60	796	1194	975	256	719	-219	16	-203	-21	
434	69			503	889	33	856	1001	500	235	565	-201	15	-186	-266	
616	56			672	918	28	890	872	721	268	453	-151	17	-134	-508	
637	58			695	1006	20	986	764	566	271	295	-198	17	-181	-336	
748	61			809	1125	0	1125	435	344	383	44	-71	25	-66	-327	
730	40			820	1022	0	1022	238	182	331	-149	-56	21	-35	-317	
725	38			763	815	0	815	215	75	343	-268	-140	22	-118	-281	
646	44			690	752	0	752	74	47	421	-374	-27	27	0	-246	
638	42			680	601	0	601	123	22	*346	-324	-101	22	-79	-202	
526	42			568	498	0	498	160	8	349	-341	-152	22	-130	-174	
459	47			508	513	0	513	259	9	420	-411	-250	27	-223	-132	
400	47			447	637	0	637	141	11	333	-322	-130	21	-107	-10	
329	60			389	622	0	622	138	6	401	-395	-132	25	-107	-	
314	63			377	632	8	624	146	3	344	-341	-143	22	-121	-2	
426	53			481	630	42	588	262	14	290	-276	-248	18	-250	-	
430	35			465	659	50	609	317	100	304	-204	-217	19	-198	2	
514	43			557	735	50	655	255	112	310	-198	-143	20	-123	4	
417	52			469	754	11	743	316	73	363	-288	-241	23	-218	6	
246	40			286	829	5	824	291	112	204	-92	-179	13	-166	7	
483	30			513	852	0	852	268	116	208	-92	-152	13	-137	8	
461	28			489	813	0	813	297	132	213	-81	-16	14	-131	9	
406	23			429	825	0	825	405	215	115	80	-190	9	-181	8	
598	13			61	386	0	386	444	290	72	218	-154	4	-150	6	
700	22			722	952	0	952	358	274	136	138	-84	9	-73	5	
867	0			867	802	0	802	498	315	0	373	-123	0	-123	0	
				53326							319333	127970		14	2381	1519
				30763							523	22320	41395	33	22752	
				1698							1428	247881	256424	17	146033	424452
				101838	165%	47	118425	247881				105642	-91581	2	3437	2333

* SEE NOTE PLAT. NO IX

PR	DRAFT	DRAFT	NEELY		GAGE	DISCH	STD	NOR	NEELY	DATE	LARK	WALCOTT	N.S. MINC	S.S. MINC	NO. MIN	CRIND	MIN	MINIDGA				NEELY	DATE				
			MIN	THRO														BAL	GAGE	DISCH	STD			NOR	LOSS	1926	
6400	80	40	1313	2639	4.73	4560	1809	2751	2520	Aug 10	43.98	83310	1230	805	1180	5.11	854	2034	2034	0	3736	5.71	3950	1977	2751		Aug 11
6400	200	101	1299	2611	4.72	4330	1813	2717	2549	17	43.68	79930	1704	8.12	1190	5.12	854	2044	2044	0	4190	5.78	4100	1983	2717		10
5040	500	282	1292	2597	4.64	4330	1593	2737	2408	18	43.33	75980	1921	8.11	1190	5.10	845	2035	2035	0	4286	5.79	4130	1973	2737		11
3030	810	408	1273	2557	4.47	3910	1218	2692	2332	19	42.94	71610	2203	8.10	1190	5.08	837	2027	2027	0	4086	5.81	4170	1973	2692		20
4710	320	161	1277	2567	4.31	3520	886	2634	2637	20	42.45	66220	2717	7.98	1160	5.08	834	1994	1994	0	4243	5.80	4150	1976	2634	93	21
4670	4	20	1256	2524	4.28	3410	667	2543	2623	21	42.23	63810	1215	7.88	1130	5.08	831	1961	1961	0	2664	H.D.	3100	1957	2543	436	22
4630	40	20	1273	2563	4.28	3450	648	2602	2627	22	42.12	62600	610	7.93	1150	5.12	840	1970	1990	0	2070	4.73	2410	1972	2602	340	23
4550	80	40	1283	2579	4.30	3500	636	2604	2600	23	42.01	61390	610	7.92	1140	5.12	837	1977	1977	0	2133	4.90	2370	1974	2614	237	24
4710	100	81	1276	2565	4.30	3500	714	2586	2541	24	41.89	60100	650	7.92	1140	5.10	831	1971	1971	0	2179	4.91	2390	1976	2586	211	25
4390	320	161	1274	2561	4.33	3570	839	2731	2459	25	41.66	57620	1250	7.91	1140	5.13	837	1977	1977	0	2843	4.93	2410	1972	2731	433	26
3710	480	242	1260	2532	4.20	3270	664	2606	2518	26	41.44	53260	1190	7.90	1140	5.17	845	1985	1985	0	2475	4.92	2400	1976	2606	75	27
3640	270	136	1264	2541	4.10	3050	445	2605	2515	27	41.20	52680	1301	7.91	1140	5.16	840	1980	1980	0	2371	4.90	2370	1976	2605	1	28
3580	60	30	1245	2502	4.05	2940	386	2554	2592	28	41.06	51170	761	H.D.	945	4.78	735	1678	1678	0	2023	4.90	2370	1976	2554	347	29
3480	100	50	1246	2504	4.04	2920	370	2550	2593	29	41.02	50740	217	DRY	0	4.12	573	573	573	0	2564	4.80	2240	1976	2550	524	30
3270	210	106	1243	2498	4.03	2900	375	2525	2559	30	41.03	50850	-35	DRY	0	4.10	566	566	566	0	2279	4.79	2230	1976	2525	49	31
3270	0	0	1243	2498	4.02	2870	285	2585	2581	31	41.07	51280	-217	DRY	0	4.12	569	569	569	0	2084	4.72	2140	1976	2585	56	32
3480	20	106	1244	2541	3.96	2750	157	2593	2562	32	41.02	50740	272	DRY	0	4.11	564	564	564	0	2458	4.73	2410	1976	2593	48	33
3530	70	35	1265	2543	4.04	2920	353	2567	2589	33	40.89	49260	746	DRY	0	4.09	560	560	560	0	3106	3.42	3220	1976	2567	114	34
3870	320	161	1276	2565	4.10	3050	483	2567	2617	34	40.80	48410	429	DRY	0	4.10	562	562	562	0	2917	3.44	3260	1976	2567	343	35
4870	760	484	1297	2607	4.22	3320	708	2612	2824	35	40.72	47570	424	DRY	0	4.12	566	566	566	0	3178	3.48	3340	1976	2612	162	36
4910	80	40	1315	2643	4.33	3570	927	2643	2590	36	40.55	46770	908	H.D.	333	4.12	566	899	899	0	3579	3.61	3600	1976	2643	21	37
4710	200	101	1289	2591	4.36	3610	1049	2591	2509	37	40.45	44710	534	H.D.	839	4.38	626	1465	1465	0	2709	5.12	2700	1976	2591	9	38
4730	40	20	1280	2573	4.36	3640	1057	2583	2620	38	40.32	43340	691	7.42	995	4.58	674	1669	1669	0	2462	5.05	2530	1976	2583	72	39
4790	40	20	1289	2591	4.30	3500	864	2636	2500	39	40.18	41860	746	7.94	1110	4.45	643	1753	1753	0	2493	5.09	2630	1976	2636	157	40
4750	40	20	1291	2595	4.30	3500	815	2635	2590	40	39.98	39750	1064	8.06	1140	4.33	614	1754	1754	0	2610	5.03	2560	1976	2635	250	41
4350	400	202	1301	2615	4.34	3600	921	2679	2613	41	39.82	38090	837	8.00	1130	4.33	614	1744	1744	0	2693	5.13	2720	1976	2679	27	42
5110	240	121	1299	2611	4.24	3760	638	2722	2562	42	39.65	36330	887	H.D.	803	4.15	573	1376	1376	0	2871	5.33	3060	1976	2722	189	43
5670	240	121	1278	2569	4.14	3140	483	2657	2587	43	39.52	34980	681	2.33	127	3.94	527	654	654	0	3167	5.18	2800	1976	2657	367	44
3580	290	146	1284	2581	4.09	3030	307	2723	2560	44	39.44	34150	418	2.30	124	3.95	529	653	653	0	2795	5.08	2640	1976	2723	135	45
1580	0	0	1289	2591	3.98	2790	63	2727	2579	45	39.36	33320	418	2.56	153	3.60	455	608	608	0	2600	5.12	2700	1976	2727	100	46
3700	120	61	1294	2601	3.94	2700	33	2733	2582	46	39.34	33120	101	3.12	224	H.D.	187	411	411	0	2390	4.98	2480	1976	2733	90	47
4360	340	171	1292	2597	4.04	2920	191	2729	2595	47	39.19	31560	787	3.26	243	1.40	139	382	382	0	3325	5.36	3110	1976	2729	215	48
4240	120	61	1287	2587	3.96	2750	20	2730	2538	48	38.92	28780	1402	3.03	212	1.18	114	326	326	0	3826	5.76	3930	1976	2730	104	49
3420	180	91	1288	2589	3.92	2660	71	2731	2600	49	38.63	25830	1487	3.16	229	1.35	133	362	362	0	3785	5.76	3930	1976	2731	145	50
3420	0	0	1290	2593	3.94	2700	36	2736	2546	50	38.40	23500	1175	3.25	242	1.51	152	324	324	0	3481	5.76	3930	1976	2736	449	51
336	60	30	1295	2603	3.97	2770	19	2751	2586	51	38.07	20150	1689	3.25	242	1.51	152	394	394	0	4065	5.77	3950	1976	2751	115	52
3340	30	15	1303	2619	3.98	2790	20	2770	2621	52	37.84	17860	1155	3.26	243	1.49	149	392	392	0	3553	5.67	3730	1976	2770	177	53
420	90	45	1314	2641	3.97	2770	24	2794	2648	53	37.54	14880	1502	3.24	241	1.46	146	387	387	0	3885	5.68	3750	1976	2794	135	54
480	30	15	1324	2661	3.98	2790	33	2757	2609	54	37.37	13200	847	3.43	267	1.41	140	407	407	0	3230	5.68	3750	1976	2757	520	55
310	60	30	1332	2677	4.00	2830	49	2781	2644	55	37.32	12700	252	3.62	294	1.41	140	434	434	0	2648	5.29	2990	1976	2781	342	56
1350	40	20	1328	2669	4.02	2870	65	2805	2679	56	37.24	11910	398	3.60	292	1.40	139	431	431	0	2837	5.22	2860	1976	2805	23	57
1580	30	15	1336	2685	3.96	2750	48	2798	2540	57	37.26	12110	-101	3.60	292	1.41	140	432	432	0	2217	5.07	2620	1976	2798	403	58
1610	3	15	1344	2701	4.03	2900	48	2852	2646	58	37.31	12610	-252	3.61	293	1.43	142	435	435	0	2213	5.03	2560	1976	2852	347	59
740	150	76	1371	2756	4.03	2900	66	2966	2634	59	37.43	13790	-595	3.60	292	1.45	145	437	437	0	1868	4.89	2360	1976	2966	492	60
830	70	35	1383	2780	4.10	3050	59	3011	2639	60	37.42	13700	45	3.62	294	1.48	148	442	442	0	2653	4.81	2250	1976	3011	403	61
910	80	40	1374	2762	4.13	3120	93	3027	2605	61	37.72	16670	-1497	3.62	294	1.50	151	445	445	0	1178	5.03	2560	1976	3027	1382	62
230	320	161	1371	2756	4.23	3340	296	3044	2939	62	37.87	18150	-746	3.65	299	1.50	151	450	450	0	2144	4.92	2400	1976	3044	236	63

WALCOTT		N.S. MINC		S.S. MINC		NO. MIN		CRIND		MIN		MINIDGA				NEELY	DATE
CHAPK.	DRAFT	GAGE	DISCH	GAGE	DISCH	TOTAL	STD	NOR	THRO	BAL	GAGE	DISCH	STD	NOR	LOSS	1926	
83310	1230	805	1180	5.11	854	2034	2034	0	3736	5.71	3950	1977	2751			Aug 11	
79930	1704	8.12	1190	5.12	854	2044	2044	0	4190	5.78	4100	1983	2717			10	
75980	1921	8.11	1190	5.10	845	2035	2035										

W.A.		NEELY	DATE	LAKE	PALAT.			N.ST.F.CAN.		PA.+N.ST.F.CAN.		PLATE NO X														
TR	NOR.	LOSS	1926	GAGE	GAGE	DISCH.	GAGE	DISCH.	TOTAL	STD.	NOR.	S.ST.F.CANAL			MIL. LOW LIFT CAN.			MIL.	MILNER				MIN.			
				MIL.								GAGE	DISCH.	STD.	NOR.	GAGE	DISCH.	STD.	NOR.	THEO.	GAGE	DISCH.	STD.	NOR.	LOSS	
199	2751		Aug 17	9.32	1.81	48	7.15	2140	2188	1867																
383	2717		10	9.25	1.81	48	7.12	2120	2168	1851		7.42	1880	- 526	2406	1.99	46	22	24	- 164	148	11	11	0	175	
393	2737		19	9.32	1.81	48	7.13	2130	2175	1859		7.67	2000	- 376	2376	2.01	47	23	24	- 115	148	11	11	0	126	
478	2692		20	9.39	1.81	48	7.20	2160	2208	1894		7.67	2000	- 394	2394	2.02	48	24	24	- 96	149	12	12	0	108	
516	2634	93	21	9.44	1.81	48	H.D.	1820	1868	1561		7.68	2010	- 344	2354	2.05	47	25	24	- 97	150	12	12	0	109	
557	2593	- 436	22	9.50	1.81	48	2.60	432	480	184		7.78	2050	- 253	2303	H.D.	36	12	24	196	148	11	11	0	- 185	
192	2602	- 340	23	9.52	1.81	48	2.63	440	488	185		7.98	2150	- 73	2223	H.D.	46	22	24	424	148	11	11	0	- 413	
244	2614	- 237	24	9.54	1.81	48	2.68	453	501	196		8.08	2200	- 75	2275	H.D.	36	12	24	- 314	148	11	11	0	- 325	
196	2586	- 211	25	9.45	1.84	48	2.77	478	526	225		8.08	2200	- 85	2285	2.04	49	25	24	- 380	148	11	11	0	- 391	
321	2731	433	26	9.38	1.84	48	2.76	475	523	204		8.08	2200	- 61	2261	2.06	49	25	24	- 385	148	11	11	0	- 396	
206	2606	75	27	9.35	1.84	48	2.75	472	520	216		8.09	2210	- 68	2278	2.05	47	23	24	- 377	147	11	11	0	- 372	
235	2605	1	28	9.36	1.85	48	2.76	475	523	219		8.08	2200	- 77	2277	2.05	47	23	24	- 400	147	11	11	0	- 388	
184	2594	- 347	29	9.31	1.85	48	2.75	472	520	222		8.02	2170	- 62	2232	H.D.	40	16	24	- 360	147	11	11	0	- 411	
310	2550	324	30	8.82	1.85	43	2.73	467	515	218		7.63	1980	- 249	2229	H.D.	38	14	24	- 293	146	11	11	0	- 371	
295	2525	49	31	9.04	H.D.	44	2.72	464	508	214		7.70	2020	- 187	2207	2.01	47	23	24	- 345	147	11	11	0	- 356	
443	2585	- 56	SEP. 1	8.99	1.85	48	2.72	464	512	211		7.67	2000	- 260	2260	2.03	48	24	24	- 420	146	11	11	0	- 431	
183	2593	48	2	8.99	1.85	48	H.D.	1330	1378	1076		7.67	2000	- 267	2267	2.06	47	23	24	- 1015	146	11	11	0	- 1026	
653	2567	- 114	3	8.93	1.85	48	6.03	1660	1708	1409		7.68	2010	- 234	2244	2.09	47	23	24	- 545	146	11	11	0	- 556	
693	2567	- 343	4	8.78	1.85	48	5.96	1630	1678	1379		7.67	2000	- 244	2244	2.09	47	23	24	- 465	146	11	11	0	- 476	
728	2612	- 162	5	8.73	1.85	48	5.96	1630	1678	1373		7.68	2010	- 273	2283	2.10	47	23	24	- 395	145	11	11	0	- 406	
957	2643	- 21	6	8.72	1.85	48	H.D.	1310	1358	1050		7.90	2110	- 201	2311	2.10	47	23	24	85	145	11	11	0	- 74	
109	2591	9	7	8.63	1.85	48	2.59	416	464	162		7.97	2150	- 115	2265	2.10	47	23	24	39	144	10	10	0	- 29	
7	2583	72	8	8.68	1.85	48	2.57	411	459	158		7.92	2120	- 138	2258	2.09	49	25	24	- 38	145	11	11	0	- 49	
14	2636	- 157	9	9.11	1.85	48	2.47	385	433	126		7.93	2130	- 175	2305	2.09	49	25	24	38	146	11	11	0	- 27	
125	2685	250	10	9.14	1.85	48	2.45	380	428	115		7.98	2150	- 198	2348	2.09	49	25	24	- 67	144	10	10	0	- 77	
41	2679	- 27	11	9.44	1.85	48	2.49	390	438	126		8.58	2520	177	2343	2.09	49	25	24	- 287	146	11	11	0	- 298	
338	2722	- 189	12	9.46	1.85	48	H.D.	289	337	19		8.92	2700	320	2380	2.09	49	25	24	- 26	154	13	13	0	- 39	
143	2657	367	13	9.58	1.85	48	1.32	0	48	- 262		8.81	2670	347	2323	2.10	49	25	24	33	213	41	41	0	- 8	
83	2723	155	14	9.68	1.85	48	1.32	0	48	- 270		8.84	2660	279	2381	2.10	49	25	24	- 117	210	39	39	0	- 156	
27	2727	- 100	15	9.76	1.85	48	1.32	0	48	- 270		8.83	2660	275	2385	2.10	49	25	24	- 57	210	39	39	0	- 96	
253	2733	- 90	16	9.74	1.85	48	H.D.	108	156	- 163		8.85	2670	280	2390	2.10	49	25	24	- 395	209	38	38	0	- 433	
381	2729	215	17	10.14	1.86	49	2.48	416	465	147		8.84	2660	273	2387	2.10	49	25	24	- 64	162	17	17	0	- 81	
200	2730	- 104	18	10.71	1.85	48	2.64	459	507	186		8.67	2570	161	2409	2.10	49	49	0	804	184	25	25	0	- 779	
1194	2731	- 145	19	11.00	1.85	48	5.63	1550	1598	1277		8.63	2550	140	2410	H.D.	43	43	0	- 261	196	31	31	0	- 292	
1194	2736	- 449	20	10.76	1.85	48	5.99	1700	1748	1426		8.61	2540	126	2414	2.13	50	50	0	- 408	182	24	24	0	- 432	
1199	2751	115	21	10.63	1.85	48	5.68	1570	1618	1294		8.56	2510	83	2427	2.11	49	49	0	- 227	178	23	23	0	- 250	
960	2770	- 177	22	10.53	H.D.	40	5.57	1520	1560	1234		8.56	2510	66	2444	2.10	49	49	0	- 389	174	21	21	0	- 410	
956	2794	135	23	10.30	DRY	0	5.51	1500	1500	1171		8.49	2470	5	2465	2.10	49	49	0	- 269	170	20	20	0	- 289	
993	2757	- 520	24	10.24	DRY	0	H.D.	1050	1050	720		8.35	2370	- 63	2433	2.09	49	49	0	281	170	20	20	0	- 261	
209	2781	- 342	25	10.46	DRY	0	3.63	789	789	462		8.20	2260	- 194	2454	2.08	48	48	0	- 107	172	20	20	0	- 127	
55	2805	- 23	26	10.16	DRY	0	3.62	786	786	456		8.16	2240	- 235	2475	2.08	48	48	0	- 214	170	20	20	0	- 234	
178	2798	- 403	27	10.33	DRY	0	5.43	716	716	387		8.08	2200	- 269	2467	2.09	49	49	0	- 345	168	19	19	0	- 364	
292	2852	- 347	28	10.32	DRY	0	2.72	492	492	156		8.02	2170	- 346	2516	2.09	49	49	0	- 151	167	19	19	0	- 170	
606	2966	- 492	29	10.22	DRY	0	2.38	401	401	52		8.02	2170	- 447	2617	2.08	48	48	0	- 259	166	18	18	0	- 277	
761	3011	403	30	9.78	DRY	0	2.00	309	309	- 45		7.83	2080	- 577	2657	2.09	49	49	0	- 188	160	16	16	0	- 204	
467	3027	- 1382	OCT. 1	10.44	DRY	0	1.42	196	196	- 160		7.83	2080	- 591	2671	DRY	0	0	0	284	164	18	18	0	- 266	
644	3044	- 236	2	10.64	DRY	0	1.40	193	193	- 165		7.78	2050	- 636	2686	DRY	0	0	0	157	165	18	18	0	- 139	
2478		458%							175842				49653		9861				4634						39564	
8785		11818							17353				13221		7				37633							4344
1295	400.103	30078					6.524	251948	258772	158,409	100283		415020	36432	378505		11027	2854	1173	-33019		2201	2140	61	35220	

ALL DISCHARGE QUANTITIES ARE GIVEN IN SECOND FEET UNLESS OTHERWISE NOTED AT TOP OF COLUMN

Only stored water quantities are tabulated for the Lorenzo station. Complete segregation of flow would, in this case, involve consideration of all water by-passed through the Great Feeder and this could hardly be shown satisfactorily without the addition of complicated tables to the already voluminous summary herein presented. Losses and gains between the Heise and Lorenzo stations were computed to determine the amounts deducted throughout the season as storage transmission loss and will be discussed further on in this report.

Storage released from the Emma Matilda and Two Ocean Lake Reservoirs is shown under the heading, Twin Lakes.

A record was kept for most of the season of the inflow into the river from the so-called Market Lake Springs, but, as this water is treated as storage used to supply the Sheppard Canal and was discharged at the rate of 5 second-feet or less, the data were purposely omitted from these tabulations.

Attention should perhaps be directed to the partial season records which have been included for the Robertson Station on Snake River. This station was installed about the middle of the summer by the Twin Falls Canal Company under an agreement which provided for its operation by District No. 36 during the balance of the season for the purpose of securing more detailed information about channel losses and gains between the Blackfoot Bridge and Clough stations. Whether or not these data will be of sufficient use in river administration to warrant permanent maintenance of the station has been left for later decision by the Committee of Nine.

The 24 second-feet of normal flow which was credited to the Milner Low Lift Irrigation District from August 10 to September 14 inclusive represents that portion of a temporary transfer from the Long Island Canal which should pass Blackfoot Bridge after the $17\frac{1}{2}$ per cent penalty and 6 per cent transmission loss have been deducted. Because of the involved bookkeeping required for such a long range transfer it seems desirable in the future to limit other transactions of this character to canals within the same transmission loss zone.

Operation of the American Falls Reservoir for the first season introduced new complications and made it necessary to change the methods previously used to segregate the flow past the Neeley gaging station. These changes will be discussed in another section of this report in connection with storage deliveries.

Penalties accruing to Lower Valley canals from exchanges of normal flow for storage and temporary transfers of water have not been separately accounted for in these tables but will also be covered under the heading of storage deliveries.

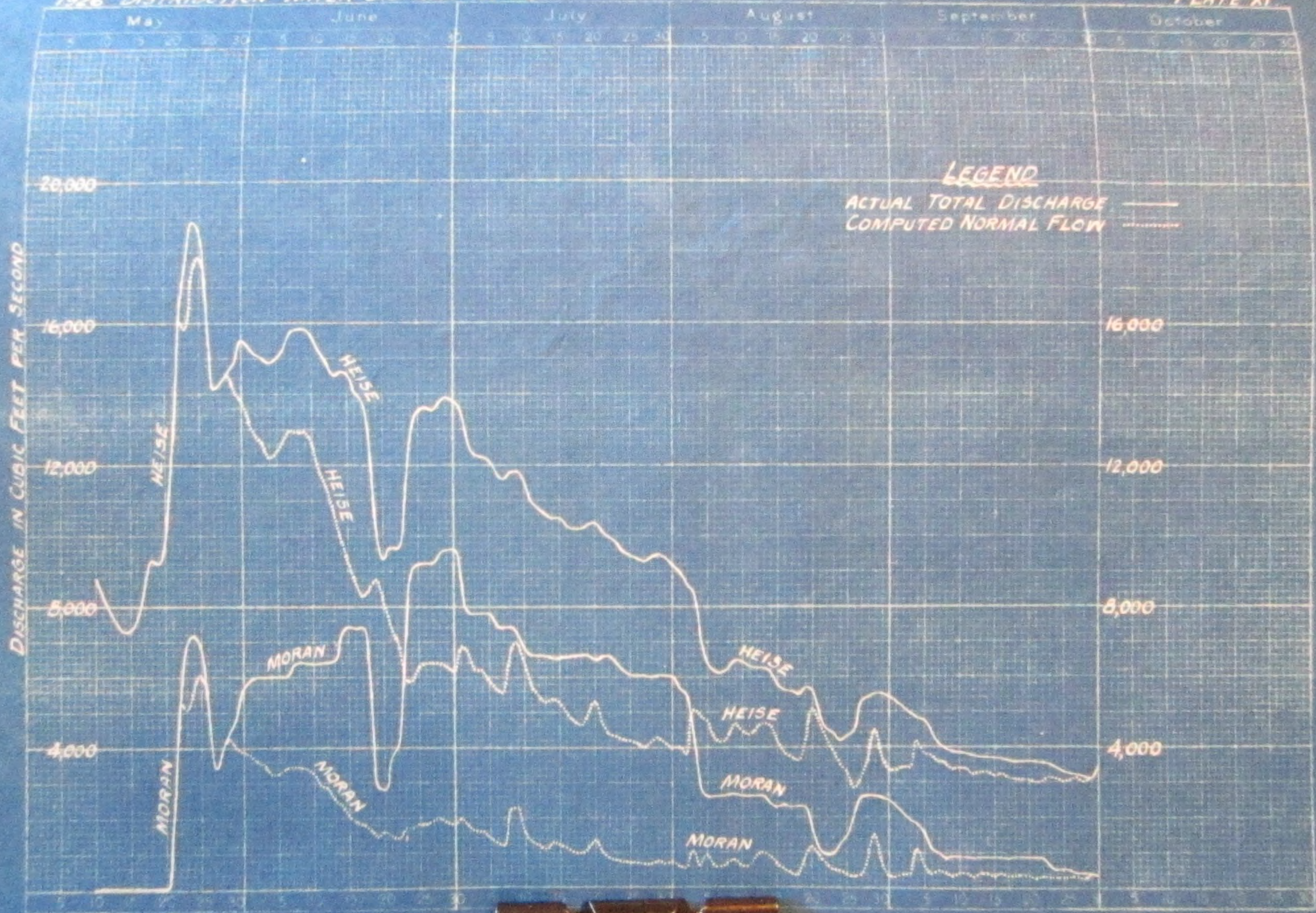
In most other respects the river data presented herein conform and are consistent with the similar tables contained in former reports.

SEGREGATION OF FLOW

Plate XI shows graphically both the total discharge and the computed normal flow past the Moran and Heise gaging stations during the season of 1926. The difference between the total and normal flow graphs on any date, of course, indicates storage.

HYDROGRAPHS SHOWING TOTAL FLOW AND NORMAL FLOW AT THE MORAN AND HEISE GAGING STATIONS. 1926 DISTRIBUTION WATER DISTRICT NO. 36

PLATE XI



These graphs are plotted from the special day discharges with the time interval adjusted to make them coincide with the nearest regular day at Heise. For example, the Heise data shown for July 20 really represent mean quantities for the 24 hour period ending at 4 a.m. on July 21, while the indicated Moran data for July 20 are means for the 24 hour period ending at 4 a.m. on July 20.

While these diagrams are merely a graphical representation of some of the numerical quantities contained in the tables of Plates VIII, IX and X, they will be of interest and perhaps of some assistance in connection with the explanations and discussions which have preceded as well as those which follow.

The irregularities noted in the Heise normal flow after about August 2 are undoubtedly due very largely to the fact that the single time interval used is too short for proper application during the lower river stages which pertained during the balance of the season. The net effect is similar to that usually experienced on rapid changes of river stage and attributed to increments from or loss to adjacent ground water reservoirs, depending respectively upon whether the river dropped or rose. In reality some of the more pronounced fluctuations are probably due to variable combinations of the two above mentioned factors and actual changes attributable to rains, with the time interval increasing in relative importance as the river stage diminishes.

Total discharges at both stations, with the exception of the period June 18-24 which is accounted for by the normal flow-storage exchange equalization, were more uniform than usual. This was made possible because of the regulatory influence of the American Falls Reservoir.

UPPER VALLEY STORAGE DELIVERIES FROM JACKSON LAKE,
TWIN LAKES & MARKET LAKE,

The amount of stored water released each day from Jackson Lake was determined from the reservoir capacity tables by noting the quantity corresponding to the daily decrease in stage indicated by the lake gage readings. Occasional irregularities in the latter, attributable to wind effect, were largely eliminated by short period interpolations or adjustments.

This method of determining the proportion of the total daily flow passing the dam and the Moran gaging station, which is stored water, has been in use for several years. Its use assumes a certain balancing of comparatively unknown factors. Normal flow rights should obtain the benefit of such natural storage as would have been created in the old lake during flood periods and they should not be required to stand the extra evaporation loss attributable to the larger flooded area of the present reservoir. On the other hand the storage owners should obtain the benefit of all the additional ground or bank storage which results from the increased elevation of the water surface in the lake.

The primary object of the investigations conducted during 1924 by Thomas R. Newell and for several years previous by employees

of the U. S. Bureau of Reclamation was to secure a more accurate segregation between stored water and normal flow at the outlet of the reservoir. The data thus secured indicate that the method just described is not strictly applicable under all conditions of river flow and reservoir operation, but hardly suffice as yet to warrant the preparation and adoption of any more equitable plan of division.

The storage transmission loss schedule agreed upon for 1926 (which is the same as that used in both 1924 and 1925) provided for flat deductions of 2.5 per cent between Moran and Heise, 0.5 per cent between Lorenzo and Woodville and 6.0 per cent between Woodville and Blackfoot Bridge, but after fixing a minimum of 3.0 per cent left the actual amount to be deducted for the section from Heise to Lorenzo to be determined by what is called the "two day mean method". Under this method the percentage loss actually applied each day is the mean of the computed losses for the two preceding days as these are evolved from the following equation:

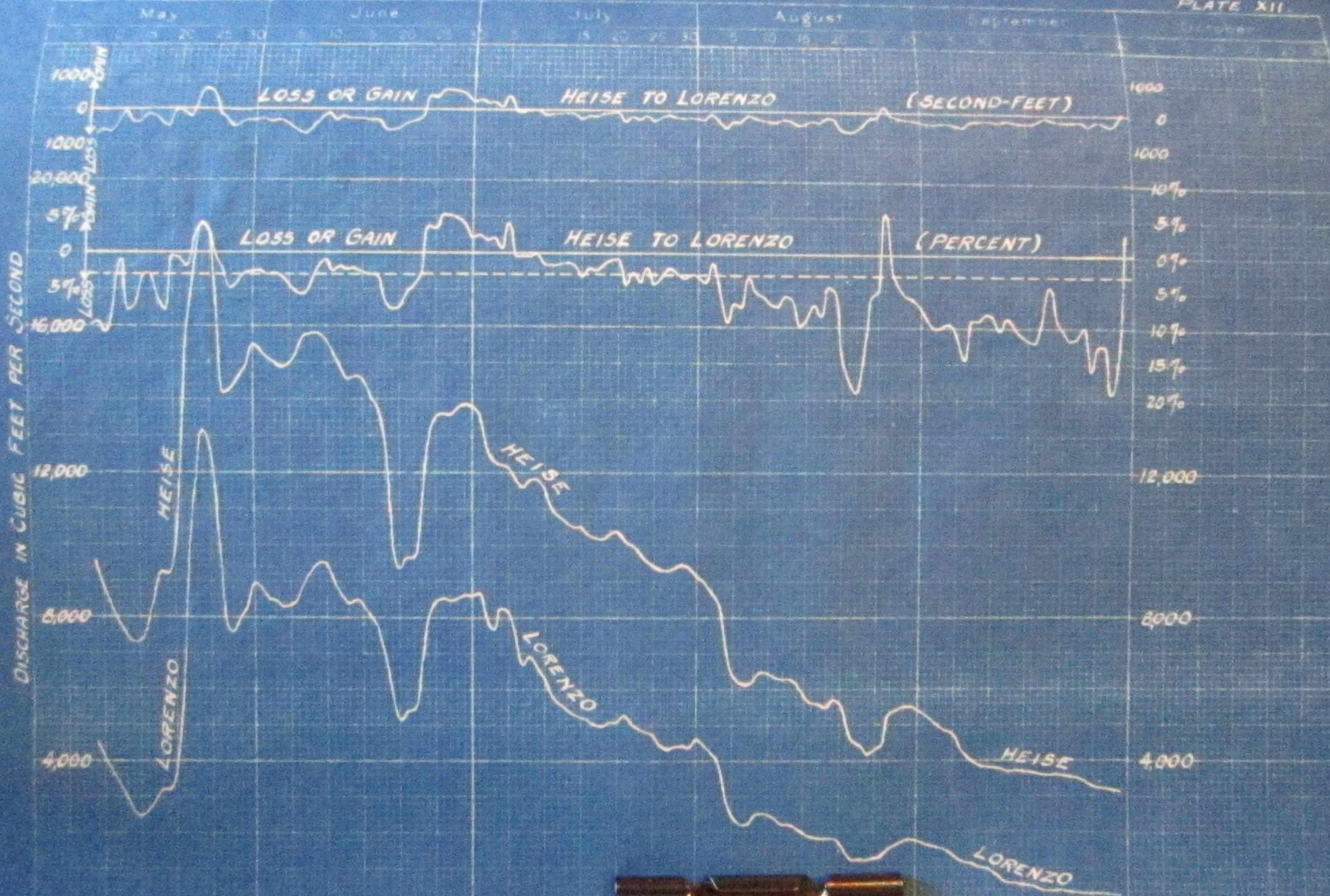
$$\text{Percentage loss} = \frac{\text{actual daily loss}}{\text{Approximate average flow in section}} = \frac{U + T - D - L}{\frac{1}{2}(U + T + L)}$$

Where U equals total flow at upper river station (Heise in this case)
T " inflow from tributary streams entering within section
D " total diversions throughout section
L " total flow at lower river station (Lorenzo)

3.0 per cent, however, was always applied on days for which the mean loss, thus derived, was less than this amount.

Plate XII contains hydrographs for both the Heise and Lorenzo stations together with curves, which exhibit the computed daily losses and gains between the two points, not only in percentage, but also in second-feet. These diagrams have all been adjusted to make them correspond to the nearest Heise dates.

DEPARTMENT OF THE INTERIOR UNITED STATES GEOLOGICAL SURVEY
 HYDROGRAPHS ILLUSTRATING NET LOSSES AND GAINS BETWEEN HEISE AND LORENZO GAGING STATIONS
 1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE XII



The pronounced tendency for percentage losses to increase as river discharges decrease, to which attention has been called in former reports, is here again noted. Considering this fact alone we would naturally expect the 1926 losses in this section to be greater than those of the preceding year and almost as heavy as those of 1924. In reality, however, the average applied transmission loss for the entire period of storage delivery was this year only 3.9507 per cent in comparison with 4.1763 per cent in 1925 and 5.2424 per cent in 1924. This smaller loss is thought to be due in part to the transmission of most of the Jackson Lake Storage during the early part of the summer before the very low river stages were experienced and in part to the generally higher ground water levels which prevailed in the early part of the 1926 season. (See pages 44-46 for further discussion of ground water conditions).

Transmission deductions for all storage delivered to canals diverting above the Blackfoot Bridge gaging station were computed upon the basis of losses to Woodville, as specified in the purchase contracts. Obviously it would be impracticable to calculate losses to the heading of each individual canal and this group method was doubtless originally adopted to avoid the necessity for such procedure. Since more than half the Jackson Lake storage owned in the upper valley is diverted above the Woodville station and the balance within a distance of about twelve miles below that point, this plan would seem to be at least reasonably fair to all concerned. 1926 computations show that upon the basis of the final seasonal loss these canals should have received at their headgates 93.1041 per cent of the stored water turned out for them at Moran.

LAKE TWIN LAKES and MARKET LAKE STORAGE DELIVERIES (REGULAR)

							JULY																														
25	26	27	28	29	30	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		
16	10	10	13	17	16	16	15	15	13	11	11	15	21	5	20	24	17	10	13	12	15	15	18	25	26	24	24	24	23	21	21	20	20	19	19		
247	330	335	335	315	39	159	166	155	159	153	+57	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159		
-1	-1	-1		+5	5	5	5	4	5	4	1																										
164	164	158	159	158	158	158	-132	-295	-299	-299	-297	-299	-299	-6	-6	-6	-6	-6	-6	-6	-3																
367	368	356	365	349	322	320	313	242	203	194	-204	-195	-201	-206	-213	-213	-220	-233	-226	-229	-202	-32	-84	-71	-65	-76	-84	71	-81	-76	-67	70	75	72	82		
+42	42	45	42	40	40	39	33	33	30	137	-75	132	132	132	134	-13	148	46	46	47	43	51	47	47	51	48	48	47	45	49	48	48	49	46	47		
179	187	175	175	179	179	183	354	-622	-622	-622	-622	-101	+64	152	164	149	160	164	156	168	164	171	+284	-103	-368	-368	+44	404	400	400	408	408	408	404	404		
+4	20	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26		
10	17	18	19	15	-29	-71	-69	78	-68	-72	-23	+6	7	3	7	2	18	14	20	20	23	27	27	28	28	28	38	42	40	40	35	34	36	39	35		
-34	-32	+47	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58		
-85	-75	-79	-79	-79	-80	-57	-33	-35	-39	-48	-43	-53	-43	43	45	44	-50	-52	-24																		
-1	+23	17	23	21	22	7																															
-322	-322	-322	-322	-322	-322	-127																															
40	40	40	40	41	40	40	40	+16	-33	-33	+20	44	46	47	41	41	41	41	47	59	58	65	71	72	73	74	76	78	77	77	89	89	78	77			
-1	-1	-2	-1	-1	-8	-12	-3	-3	-3	-3	-3	-6																									
1	1																																				
-161	+25	22	37	38	31	34	27	31	27	24	33	-149	-258	-286	-273	-274	-104	-6	+21	20	233	477	422	429	449	443	440	329	254	258	259	238	231	221	219		
-5	-2		+7	23	24	23	21	23	21	23	18	8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
-4	+44	44	42	42	43	43	44	58	66	66	66	53	41	+42	-47	-49	-47	-48	+37	40	39	42	43	42	46	51	50	48	47	45	45	46	45	43	46		
1261	533	552	565	560	558	+53	-200	-200	200	200	+305	554	552	565	556	401	205	150	143	140	140	138	136	130	137	138	138	136	134	132	132	130	294	407	391		
76	769	1181	1241	1334	1341	1322	804	371	383	372	369	677	907	1049	1031	1083	699	742	682	799	841	1061	1264	1673	1608	1671	1344	1400	1560	1487	1501	1690	1810	1956	2047	2020	
1496	836	831	807	795	797	886	1553	1913	2011	2064	1534	1133	1096	845	829	801	719	561	504	476	447	135	185	262	505	508	210	194	220	227	164	172	178	175	185		
-726	+345	+410	+527	+546	+525	-87	-1182	-1530	-1639	-1695	-857	-226	-47	+186	+254	+102	+23	+121	+295	1365	+614	+1129	+1433	+1346	+1166	+836	+1190	+1366	+1267	+1278	+1526	+1638	+1778	+1872	+1835		
333	333	333	-70																																		
-53	-49	-49	-17																																		
-22	-22	+252	353	388	390	390	387	388	388	388	+115	-23	-22	23	-23	-140	+4	403	401	403	403	403	400	+118	-23	-23	-23	-24	-23	-23	23	+250	389	391	388		
1	1	608	888	876	873	876	876	873	870	873	870	291	1	1	1	+1	870	435	1	1	1	634	945	942	942	972	984	984	987	984	990	330	1	1	1		
39	39	-27	-3	-5	-8	-11	-55	-53	-53	-53	-56	-53	-58	-59	-59	-58	-58	-59	-12	-9	-15	-14	-12	-13	-10	-8	-7	-9	-8	-8	-3	-9		+4	6		
36	36	-41		+10	18	18	18	17	17	18	18	8																									
-68	-64	-64	-64	-64	-18	+4	3	5	+1																												
1	1	608	1440	1239	1279	1288	1287	1282	1276	1279	1276	414	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
607	536	186	86	26	11	55	53	53	53	340	480	507	1104	1106	867	1830	1261	811	666	249	377	374	371	222	126	123	55	77	261	440	174	52	358	358	119		
606	172	+954	1153	11263	11277	11232	11279	11223	11226	+936	-66	-506	-1103	-1105	-466	-1830	-1257	-407	264	+155	+660	+972	+693	+722	+901	+951	+1020	+1002	+886	+571	+460	+486	+96	+77	+38		

(REGULAR EXCHANGE) - UPPER VALLEY

Handwritten ledger table with multiple columns and rows of numerical data, organized in a grid format on blue-lined paper. The table contains numerous entries, likely representing exchange rates or financial transactions over time.

Handwritten data on the left page of a blue grid notebook. The data is organized in rows and columns, with dates and numbers written in blue ink. The top row includes dates from 25 to 31. The middle section contains various numbers, some with subscripts. The bottom section shows a series of numbers with plus signs, possibly representing cumulative values.

Handwritten data on the right page of a blue grid notebook. The data continues from the left page, with dates from 10 to 30. It features a grid of numbers, some with plus signs, and some cells containing zero. The bottom of the page shows a series of numbers with plus signs, similar to the left page.

25	26	27	28	29	30	TOTAL -	TOTAL +	7 1/2% PENALTY CHARGE	TRANSFER CREDITS BASIS	REGULAR SUM OF (TRANS) (-)	NET DELIVERY AGREEMENT	JACK LAKE EQUIVALENT AGREEMENT	JACK LAKE RIGHT ACRE FT	JL EQUIV AMT FS FT	TRANSFER CREDITS JL BASIS	TOTAL J.L. SEASON R. ACRE FT	
						1621	1121	284			+1837	+1973	1200	45	+902	2147	
						421	3228	74	+141					902	-902	0	
						6		1	-41	-75	-149	-160	2000		-2000	0	
						47	53	8		+2840	+5633	+6050	6100	631	+140	6871	
						111	51	19	+41	-5	-10	-11				0	
						4601	6284	805	-615	+4	+28	+30			+40	0	
						41	3	7		0	0	0				40	
						13882		2429	+11974	+1873	+3715	+3990	5000	721		5721	
						1240	1876	217		-31	-61	-66				0	
						114	87	20		+521	+1033	+1109		1623		1623	
						7731	8557	1353		+853	+1692	+1817	2000			2000	
						666	1113	117		-7	-14	-15				0	
						542		95	+447	+279	+4322	+4642	5120	451		5571	
						410	1453	72	+504	+564	+1119	+1202	1040			1040	
						269	2427	47	-605	0	0	0				0	
						1117	177	196	+605	+1619	+3211	+3449	4000			4000	
						4604		806	+3798	+1600	+3174	+3409	3000	271		3271	
							901		-141	0	0	0		180		180	
						145	674	25	-447	+760	+1507	+1619		+1320		1320	
						745		130	+615	+107	+212	+228		63		63	
						5081	4635	889	-303	0	0	0				0	
						303			+303	+140	+278	+299		180		180	
						66	3976	12	-52	0	0	0	5000	902	+2567	8469	
						67	3	12	+52	0	0	0	355		-100	255	
							63			+63	+125	+134		14	+100	114	
							15			+5	+30	+32		5	+30	35	
						3732	12325	653		+9246	+18339	+19697	17500	1627	+470	19597	
						30	732	5		+707	+1402	+1506	1500	135		1635	
						593	2058	104	-1457	+112	+222	+238		541		541	
						2802	14180	490	-419	+11449	+22709	+24391	25000	1804		26804	
2	0	0	0	0	0		66918										
-	-	-	-	-	-	50987		8870									
1	0	0	0	0	0		15931										
						4187		733	+3454	0	0	0				0	
						8737	1171	1529	+6037	0	0	0		902		902	
						1346	560	236	+160	-390	-774	-831				0	
						2791	10603	488	-3623	+4677	+9277	+9964	8000	1353	+361	9714	
						6509	29141	1139	-3025	+20746	+41149	+44137	42685	2349		45034	
						1384	25	242	+1117	0	0	0		361	-361	0	
						574	308	100	+166	0	0	0				0	
						851		149	+702	0	0	0				0	
						1206	891	211		-104	-206	-221		90		90	
						432		76	+356	0	0	0				0	
						51		9	+42	0	0	0				0	
										-13991	-27751	-29806				0	
										-3454	-3454	-6851	-7358			0	
										-2341	-2341	-4643	-4987			0	
							42699										
						28068		4912									
							14631										
										0	+44344	+87955	+94470	129500	15150	2567	147217
						79055	109617	13782									

PLATE NO. XIII

NOTES

- * INCLUDES 54 SECOND FEET DELIVERED TO ENTERPRISE IRRIGATION DISTRICT.
- STORAGE CONTRIBUTED TO SNAKE RIVER FROM MARKET LAKE SPRINGS AND NOT USED BY THE SHEPPARD PUMP.
- TWIN LAKES STORAGE RELEASED.
- ALL DISCHARGE QUANTITIES ARE LISTED IN SECOND FEET UNLESS OTHERWISE NOTED AT THE TOP OF COLUMN.
- HARRISON CANAL THROUGH ERROR CREDITED WITH 120 SEC. FEET OLIVE DECREEED RIGHT. THIS IS PARTIALLY OFFSET BY STORAGE UNDERDRAFT.

The Minidoka and Twin Falls canals were charged with prorata transmission losses to the Blackfoot Bridge Station and on the basis of season deliveries were entitled to receive at their headgates 87.5179 per cent of the amounts released for them at the Jackson Lake outlet gates.

The same daily transmission losses charged against Jackson Lake Storage were applied to stored water released from Emma Matilda and Two Ocean or Twin Lakes, but no losses were charged against the inflow from Market Lake Springs as this water was all diverted again in the immediate vicinity of its point of entrance to the river.

Plate XIII shows 1926 daily and total storage deliveries to Upper Valley canals from both Jackson Lake and Twin Lakes Reservoirs.

Minus quantities listed on this plate represent credits while plus items show charges or deductions. Wherever minus quantities appear in the daily tabulations they indicate credits acquired by the release of normal flow in exchange for storage.

The eleven columns of the tabular summary in left to right order may be briefly explained as follows:

- Column 1. Accumulations from the exchange of normal flow for storage (with single exception described in foot-note).
- " 2. Actual storage (both permanent and temporary) diverted.
- " 3. Penalty charged against all storage rights acquired through the exchange of water.
- " 4. Storage transfers effected upon a head-gate or Woodville River station basis. Plus quantities represent charges and minus quantities show credits.

- Column 5. Algebraic sum of amounts listed in columns 1-4, inclusive. The total of this column shows the net amount of storage actually delivered to upper valley canals at their head-gates during the season.
- " 6. Quantities in column 5 converted into acre-feet.
- " 7. Jackson Lake equivalent of column 6.
- " 8. Jackson Lake ownership right.
- " 9. Jackson Lake equivalent of 1926 American Falls ownership right. (Existing contracts permit upper valley canals owning storage in American Falls Reservoir to exchange for an equal amount at Jackson Lake. Under the 1926 apportionment of the U. S. Bureau of Reclamation each owner of water in the lower reservoir was entitled to receive 6.441752 per cent of the amount to which they would have been entitled had the full capacity of 1,700,000 acre-feet been available).
- " 10. Storage transfers effected upon a Jackson Lake basis (with single exception described in foot-note). Here again the previously outlined significance of plus and minus quantities is applicable.
- " 11. Total Jackson Lake and Twin Lakes season rights after taking into account all water sold or transferred.

Comparison of columns 7 and 11 shows the extent to which 1926 storage rights were actually utilized by or for the benefit of Upper Valley canals. The general tendency towards underdelivery is probably due in part, at least, to the fact that the average season transmission loss between Heise and Lorenzo proved to be somewhat less than had been expected, while the revised ratings used for final computations explain most of the small excess deliveries which are indicated as well as account for some of the discrepancies in the opposite direction.

Another factor, which explains some of the differences between recorded draft and rights, is the storage which was released

for the benefit of Upper Valley canals during August and September but because of fluctuations in river stage and resulting reinstatement of normal flow rights really wasted past Blackfoot Bridge. In ordinary seasons this would have been entirely absorbed by Lower Valley demands but in 1926 the regular Jackson Lake rights of the Minidoka and Milner canals had been exhausted and it was therefore necessary either to charge this surplus to the upper appropriators as storage, in which case a normal flow waste past Blackfoot Bridge would have been noted, or else reinstate normal flow rights as nearly as possible in accordance with priorities and consider the extra water to be storage waste. The latter plan appeared to be the fairest and was therefore adopted but in order to simplify the final record book-keeping a part of this waste was consumed in the payment of temporary transfer penalties which would have been included in the normal flow surplus passing Blackfoot had the other plan been used.

The following summary supplements the data on Plate XIII and completes the accounting for all Upper Valley storage rights in accordance with the methods just described:

	Acre-feet
1. Total 1926 Upper Valley, Jackson Lake and Twin Lakes Rights at reservoirs	147,217
2. Jackson Lake equivalent of not actual use	<u>94,470</u>
3. Difference	52,747
4. Storage remaining in Jackson Lake Reservoir Sept. 27	<u>860</u>
5. Storage released from Jackson Lake but not used in Upper Valley	51,887

6.	Blackfoot Bridge equivalent of item 5	45,410
7.	Blackfoot Bridge equivalent of storage sold by Upper Valley canals for delivery below American Falls	<u>36,892</u>
8.	Difference = Total Upper Valley storage waste past Blackfoot Bridge	8,518
9.	Amount absorbed by temporary transfer penalties less Milnor Low Lift transfer plus Blackfoot Bridge cumulative storage loss (5012 - 1714 + 1039)	<u>4,337</u>
10.	Difference = Net Upper Valley storage waste past Blackfoot Bridge	4,181

Plate XIV contains a summary of all Lower Valley storage or equivalent rights and deliveries and supplements the information contained on Plate XIII.

Daily deliveries to each of the Lower Valley canals are listed on Plates VIII, IX and X.

In former reports a separate tabulation has been included for the purpose of segregating the daily stored water charges between the different sources of supply. Very little additional data of material value is afforded by such a table and for this reason, as well as because of the added complications introduced by the operation of the American Falls Reservoir, it has not been prepared for the 1926 season.

During April when water was being impounded at American Falls some depletion of the Lake Walcott storage resulted. In consequence 106,570 acre-feet rather than the actual maximum recorded amount was fixed as the total 1926 storage to be prorated to the owners of the former reservoir. This factor and the discrepancies arising from the use of two different capacity tables are both cared for in the Lake Walcott-American Falls capacity adjustment item.

TABLE SHOWING SUMMARY OF STORAGE OR
EQUIVALENT RIGHTS AND DELIVERIES
TO LOWER VALLEY CANALS
MAY 1-SEPT 30, 1926 (NEELEY DATES) ON NEELEY
OR HEADGATE DELIVERY BASIS

1926 DISTRIBUTION WATER DISTRICT NO 36.

PLATE NO. XIV

CHARACTER OF RIGHT	MINIDOKA PROJECT	NORTH SIDE CAN. CO. LTD.	TWIN FALLS CANAL CO.	MILNER LOW LIFT IRR. DIS.	TOTAL SEC. FT.	TOTAL ACRE FT.
REGULAR JACKSON LAKE	111703	119507	33788	6619	271617	538744
UPPER VALLEY PURCHASES	13152	3247		2201	18600	36892
EXCHANGE PENALTY	3701	1089	8165		12955	25696
WATER TRANSFER PENALTY	722	212	1593		2527	5012
BLACKFOOT RES. BLACK RIV. DEL.	5042	12679			17721	35149
BLACKFOOT RES. SWANE R. SUBSTN.		11343			11343	22498
AMERICAN FALLS USBR APPORTIONMENT	32846	15390	4583	910	53729	106570
LAKE WALCOTT APR 30-MAY 1 CAP.	50175				50175	99520
NET GAIN NEELEY-MILNER	5142				5142	10199
LAKE WALCOTT AF CAP. ADJ. MT.	539				539	1070
TOTAL	223022	163467	48129	9730	444348	881350
UPPER VALLEY WASTE PAST CLOUGH					2108	4181
TOTAL AVAILABLE					446456	885531
TOTAL ACTUAL DRAFT	228257	159462	37599	9854	435172	863151
UNUSED BALANCE						22380
BALANCE IN AM FALLS RES.						4230
BAL IN LAKE WALCOTT						18150
TOTAL BALANCE						22380

NOTES - AMERICAN FALLS RESERVOIR RIGHTS WERE APPORTIONED ON BASIS OF TABLE SHOWING ZERO CAPACITY AT ELEV. 4292.5 BUT ALL OTHER DATA IN THIS REPORT WERE COMPUTED FROM LATER TABLE WHICH SHOWS ZERO CAPACITY AT ELEV. 4295.66.

STORAGE WASTED PAST MILNER DAM (2140 SEC. FT.) HAS BEEN PRORATED AND CHARGED IN THE ABOVE DELIVERIES, $\frac{5}{11}$ TO THE NORTH SIDE CANAL CO. LTD. AND $\frac{6}{11}$ TO THE TWIN FALLS CANAL CO, BUT WITH THIS EXCEPTION THE ACTUAL DRAFT TOTALS CORRESPOND WITH THOSE SHOWN AT THE BOTTOM OF PLATE X.

All other quantities found on Plate XIV are believed to be sufficiently explained by the headings and notes to make them understandable.

Differences in interpretation of certain contract paragraphs resulted in some controversy during the summer concerning the American Falls rights of the Idaho Power Company but since the latter did not press their claims to the detriment of the irrigation interests and since no storage was released between May 1 and Sept. 30 except for irrigation use, the Power Company rights will not be discussed herein.

All storage delivered to Lower Valley Canals has been computed as the difference between their total draft and the normal flow to which they were entitled under record rights and determined from the amount of the latter passing the Neeley gaging station at a corresponding time. This method has been used for many years but because of the operation of the American Falls Reservoir a new means of determining the normal river flow at Neeley was made necessary.

During the summers of 1924 and 1925 U. S. Bureau of Reclamation hydrographers had been engaged in measuring surface inflow into the reservoir basin. A summary of the results of this work showed that based upon a 10 summer month average 53% of the total inflow between the Clough and Neeley gaging stations was actually measured in 23 or more separate streams.

This work was continued in 1926 by Messrs. Smith and Anderson of the U. S. Bureau of Reclamation, and was checked at frequent intervals during the season by Messrs. Coffin and Judah,

Water District No. 36 hydrographers, also by Messrs. Steward and Haight of the Twin Falls Canal Company. Preliminary discharge summaries were forwarded to the Idaho Falls office every three or four days throughout the summer. These measured totals were then divided by 0.53 to determine the entire inflow between the two base river stations and this in turn was added to the normal flow passing the Clough station to give the normal flow at Neeley 14 hours later. Slight corrections were made every few days to take account of changes in the measured quantities since the last preceding report.

As the season progressed it became evident from unaccounted for gains in the American Falls Reservoir that the 0.53 coefficient was too large to give correct results for 1926 but as there was no assurance that this would continue to be the case throughout the distribution period it seemed desirable to postpone definite readjustments as long as possible.

In a letter sent to all Lower Valley Stored Water Users on July 31, attention was called to the situation and to the probability that credits would be available from this source but, as there appeared at the time to be no particular urgency, distribution of these gains was not made until September 8. By this latter date the amount to be credited had gradually increased to a total of about 31,500 acre-feet of which two thirds was assumed to be attributable to faulty coefficients and one third to bank storage return. Under the distribution then made the Twin Falls Canal Company received a credit of nearly 20,000 acre-feet which

apparently was much more than had been anticipated by them and coming so late in the season was of little benefit, whereas the prorating of even the smaller amount then available, about the middle of August, would have helped materially in the last irrigation of the bean crop.

Too little information is available to make an absolutely equitable segregation of 1926 American Falls Reservoir gains and losses possible. Storage interests should bear the extra evaporation and deep percolation losses but should benefit from the bank storage return while all these are merged with the errors incident to inaccurate normal flow determination as above described.

Study of the past season's data indicates that if the bank storage return can be assumed to exactly offset the excess evaporation and deep percolation losses attributable to the reservoir an average uniform coefficient of 0.499 would have been almost exactly applicable to the Neoley normal flow determination for the months of June, July, August and September. Flood water originating above and at some distance from the reservoir is probably responsible for the materially larger coefficient (0.53) which must be used for the month of May.

While these results appear somewhat inconsistent in comparison with those obtained during the two preceding years it is believed that their use introduces no serious errors and makes the balancing of accounts somewhat easier. Furthermore, the average daily net gain between the Clough and Neoley stations obtained in

this way, as pointed out further on in this report, is consistent with gains noted during previous seasons of similar climatic conditions. For these reasons the computed daily inflow from Clough's to Neeley as shown on Plates VIII, IX and X was obtained from the measured inflow totals as above described by the use of the 1926 coefficients, except that for convenience the inflow was multiplied by the reciprocals of the latter which gradually increased from 1.80 on May 1 to 2.01 on June 1 and each day thereafter throughout the balance of the season.

During the last part of September the Twin Falls Canal Company did not require all the normal flow to which they were entitled and this surplus became available for the use of the Minidoka and North Side canals. These underdrafts on the part of the former continue to show as credits, however, while the use of the water by the latter is reflected in the storage charged against them. For this reason the discrepancies between total storage rights and actual draft as shown on Plate XIV are considerably greater in the case particularly of the Twin Falls Canal Company and the Minidoka Project than would otherwise be indicated.

Lower Valley regulation was materially facilitated by the use of the American Falls Reservoir as an equalizing basin and in consequence no avoidable waste was allowed to pass Milner Dam at any time during the summer. The ordinary leakage through the dam at Milner was prorated in the usual way in proportion to ownership of the structure.

RIVER LOSSES AND GAINS

Losses and gains throughout different sections of Snake River are included in the data contained on Plates VIII, IX and X, but the changes in the quantities and the relation which these changes have to the discharge of the river at different points are much more readily noted when indicated graphically.

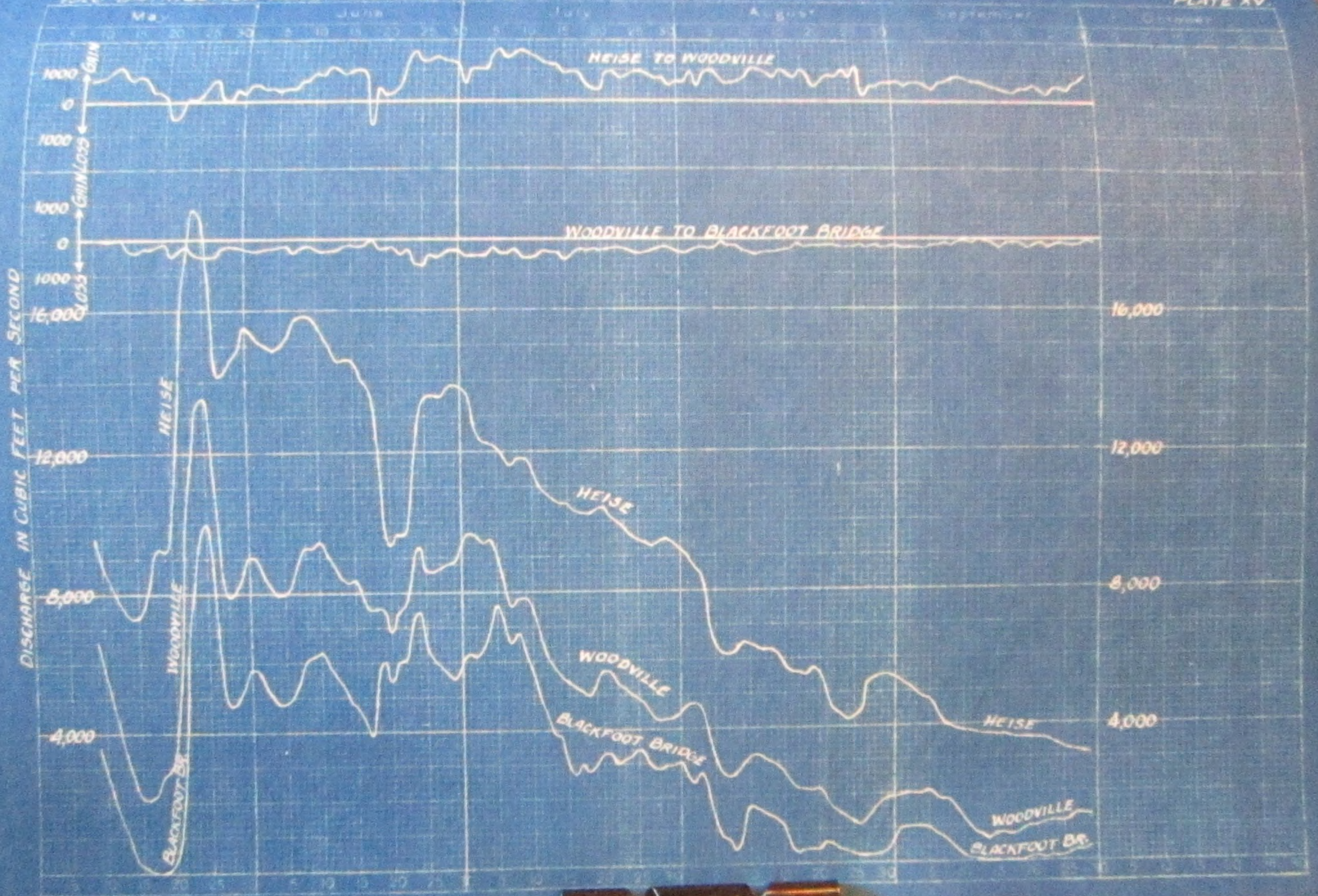
Plate XV contains hydrographs of the total flow passing the Heise, Woodville and Blackfoot Bridge gaging stations during the period from May 10 to September 30, together with graphs showing the net losses and gains in the two intervening sections. All are plotted to the same scale and with a time interval allowance to make them coincide with Heise dates.

In general these curves correspond and have the same characteristics as those contained on similar plates in preceding reports. Their greater uniformity and lack of frequent pronounced fluctuations should be noted and attributed chiefly to the more even regulation made possible through the use of the American Falls Reservoir as an equalizing basin.

The average gains and losses in the two sections Heise to Woodville and Woodville to Blackfoot Bridge respectively, differ very little from the means noted for the same sections in 1924.

At different times during the five preceding years nine separate sets of measurements have been obtained covering all surface waste and return flow entering Snake River between the Woodville and Clough gaging stations, all of which have been summarized and discussed in previous reports.

HYDROGRAPHS ILLUSTRATING NET LOSSES AND GAINS BETWEEN HEISE AND BLACKFOOT BRIDGE STATIONS, 1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE XV.



The following tabulation makes available the results of another similar investigation carried on during the low water period of 1926:

<u>Right Bank River</u>				<u>Left Bank River</u>			
<u>Name</u>	<u>Date</u>	<u>Amt.</u>	<u>Name</u>	<u>Date</u>	<u>Amt.</u>	<u>Name</u>	<u>Date</u>
Pugal Gulch	8/30	0.00					
Roadside	"	0.00					
Woodville Bridge -----							
#1	8/30	0.00	#1 (Snake River Valley)	8/30	0.00		
#2	"	1.50	#2	"	0.00		
#3-5	"	0.00					
#6 (Woodville)	"	0.30					
#7	"	0.00					
#8 (New Sweden)	"	0.10					
Lower Sholley Bridge -----							
#10-25	8/30	1.40	#3 (Snake River Valley)	8/30	0.30		
			#4 " " "	"	0.00		
			#5-10	"	0.00		
Firth Bridge -----							
#26 (New Sweden)	8/30	0.00	#11-21	8/30	0.20		
#27-29	"	0.00					
#30 (New Lavaside)	"	0.20					
#31	"	0.30					
#32 (Riverside)	"	0.00					
Porterville Bridge -----							
#33-43	8/31	0.00	#22	8/30	0.30		
#44 (Danskin)	"	0.10	#23	"	0.00		
#45	"	0.00	#24 (Blackfoot Waste)	"	1.75		
			#25 (Blackfoot Sewer)	"	1.00		
Blackfoot Bridge -----							
#46-51	8/31	0.00	#26-31	8/31	0.30		
#52 (Trego)	"	0.30					
#53 (Parsons)	"	0.20					
#54 (Watson)	"	0.00					
#55 (Combined wasteway)	"	12.83					
#55A	"	0.10					
#56 (Peoples)	"	0.30					
#56A	"	0.20					
Blackfoot Gaging Station (Clough's) on Snake River -----							
Total Right Bank		17.83	Total Left Bank		3.85		

These special return flow measurements have been made for the purpose of affording additional information concerning the reasonableness of the 6 per cent which has, for several years, been charged against stored water as transmission loss through this section of the river. The results obtained, however, can hardly be considered as in any sense conclusive because of the effect of preceding river conditions and, when reduced to percentage, of the marked variations introduced by the different amounts of total flow pertaining at the time of the particular investigation. For example; analysis shows actual net differences ranging in amount from an indicated net gain of 43 second-feet up to an average loss of 510 second-feet or from an apparent gain of 1.28 per cent up to a loss of 24.4 per cent. It should be noted also that the largest actual loss which was shown for the first test represents only 6 per cent because the average river flow in the section at that time amounted to about 8500 second-feet while the 24.4 per cent loss which is the result of the 1926 series of measurements corresponds to an actual loss of only 264 second-feet since the average total discharge of the river was then slightly less than 1100 second-feet.

To arrive at really dependable average percentage losses would require carrying on these special measurements continuously (with recording gage records on all important wasteways) for a period of several years. However, the short time tests afford some additional information and, if the 1924 and 1926 series which were made at extremely low river stages (under conditions which do not pertain when any appreciable quantity of storage is being run past Blackfoot) are excluded, indicate that the 6 per cent loss which has been charged is probably not seriously in error.

HYDROGRAPHS ILLUSTRATING NET GAINS AND LOSSES BETWEEN THE BLACKFOOT BRIDGE, ROBERTSON AND CLOUGH GAGING STATIONS
1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE XVI.

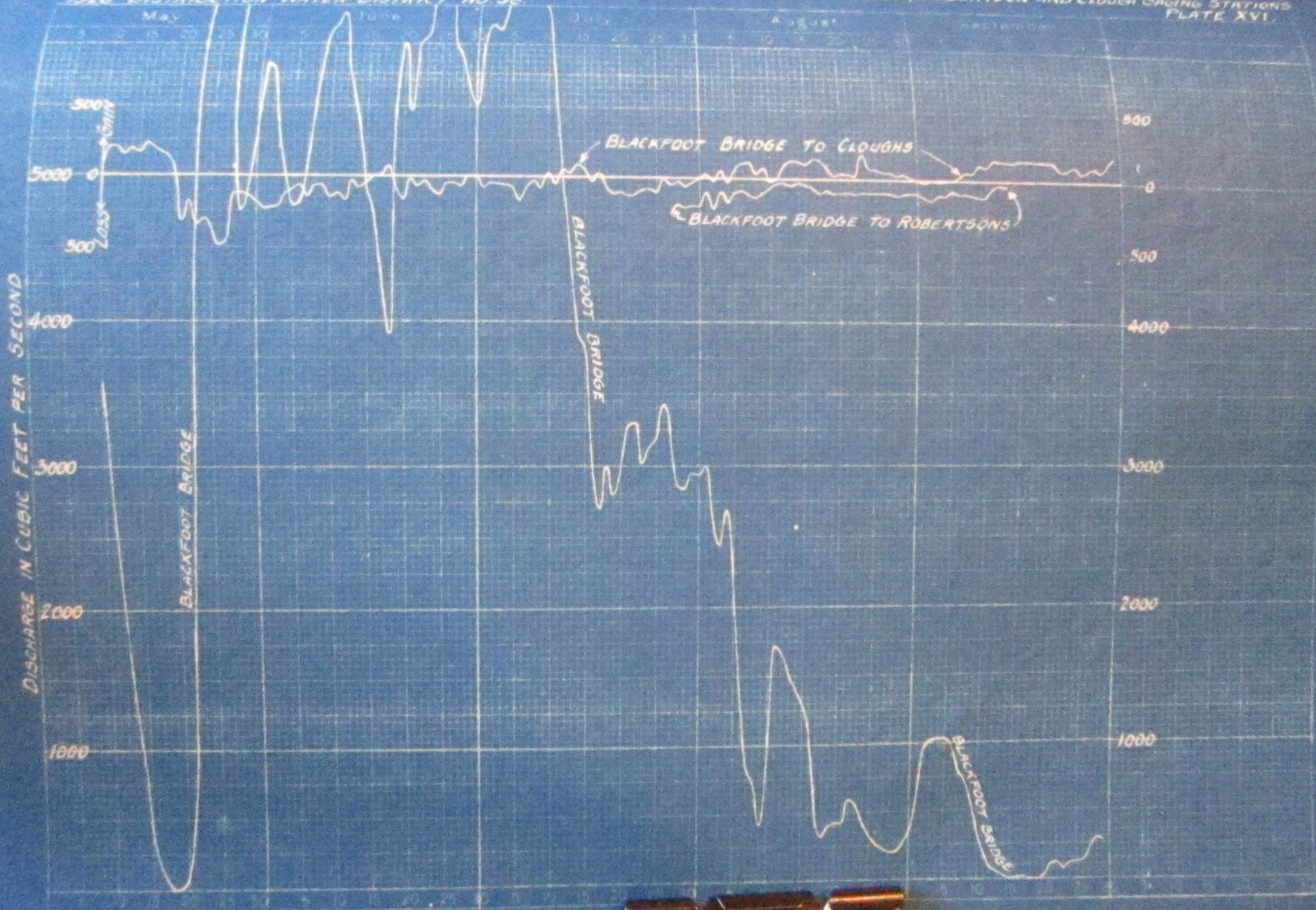


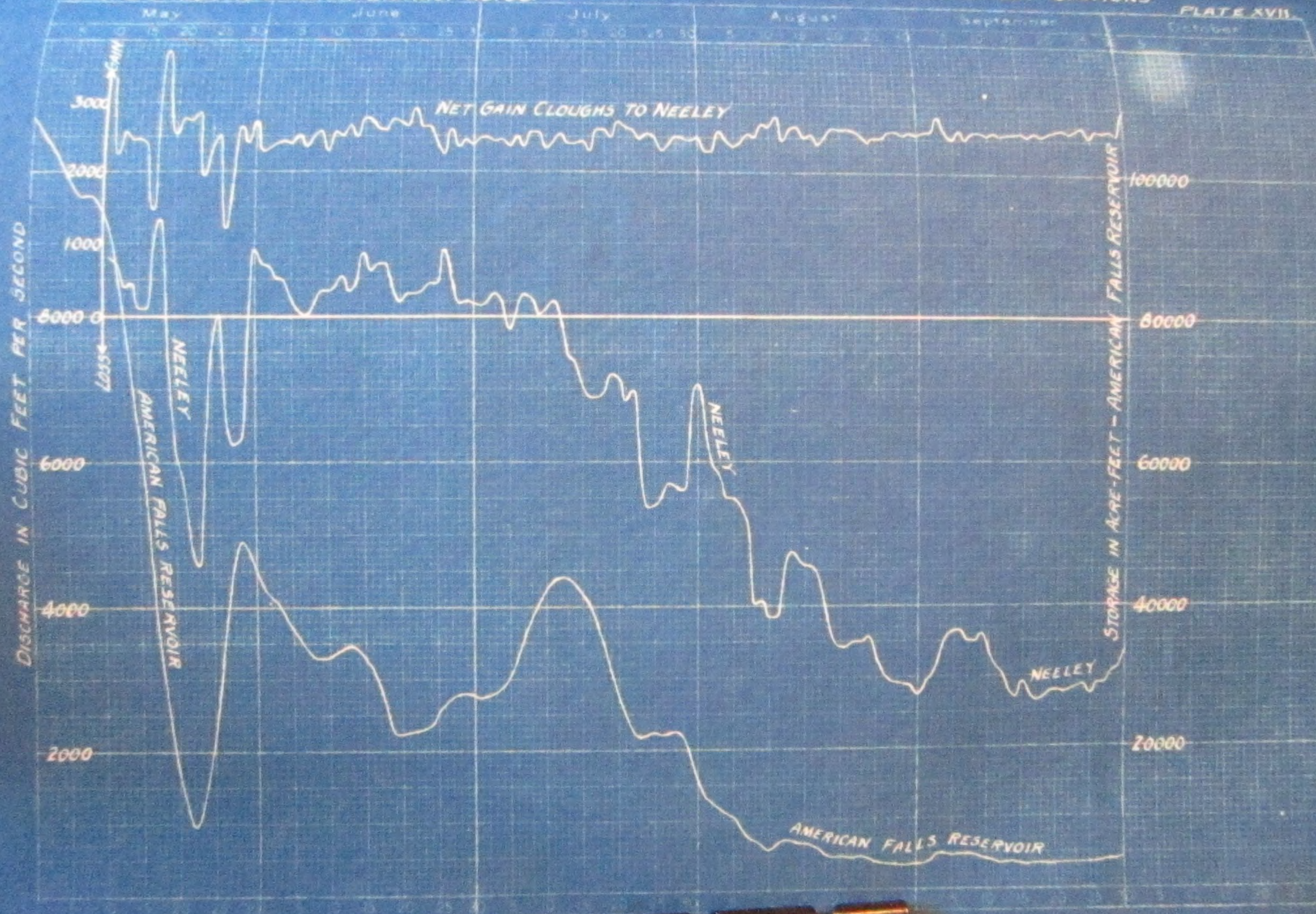
Plate XVI contains a total flow hydrograph for the Blackfoot bridge station together with graphs showing gains and losses between this station and those at the Robertson and Clough ranches farther down the river. These latter show that, while channel losses continue to be noted down as far as the Robertson station, pronounced gains appear between that point and Clough's which at extremely low river stages are greater in amount than the losses which occur in the section immediately above Robertson's.

Plate XVII affords a graphical study of the inflow between Clough and Neeley gaging stations and its relation to changes in the amount of storage impounded in the American Falls Reservoir. The Neeley total discharge hydrograph has been added for the convenience of those who may desire to make comparisons of reservoir inflow and outflow.

The net gain between Clough's and Neeley as shown on this plate is larger than the similarly labeled graph contained in preceding reports by the amount of the Portneuf River discharge past the Pocatello station. Furthermore the computed inflow rather than the computed gain between the two stations is what has been plotted. Under the methods followed these quantities are equal as to total for the season, but the latter would present a much more uneven graph because of irregularities introduced by wind effect, etc. on the reservoir. The average gain here indicated for the period May 1 to September 30 (Neeley dates) is 2542 second-feet or 2435 second-feet if the flow of the Portneuf at Pocatello is deducted. The average net gain on the latter basis for the four months June to September inclusive which corresponds with the mean given in preceding reports amounts to 2456 second-feet.

HYDROGRAPHS ILLUSTRATING NET GAINS BETWEEN CLOUGH AND NEELEY STATIONS
1926 DISTRIBUTION WATER DISTRICT NO. 36

PLATE XVII



In order to afford a comparison, the average gains in second-foot for practically the same period and with the upper Portneuf flow deducted during each of the last eight years are herewith tabulated as follows:

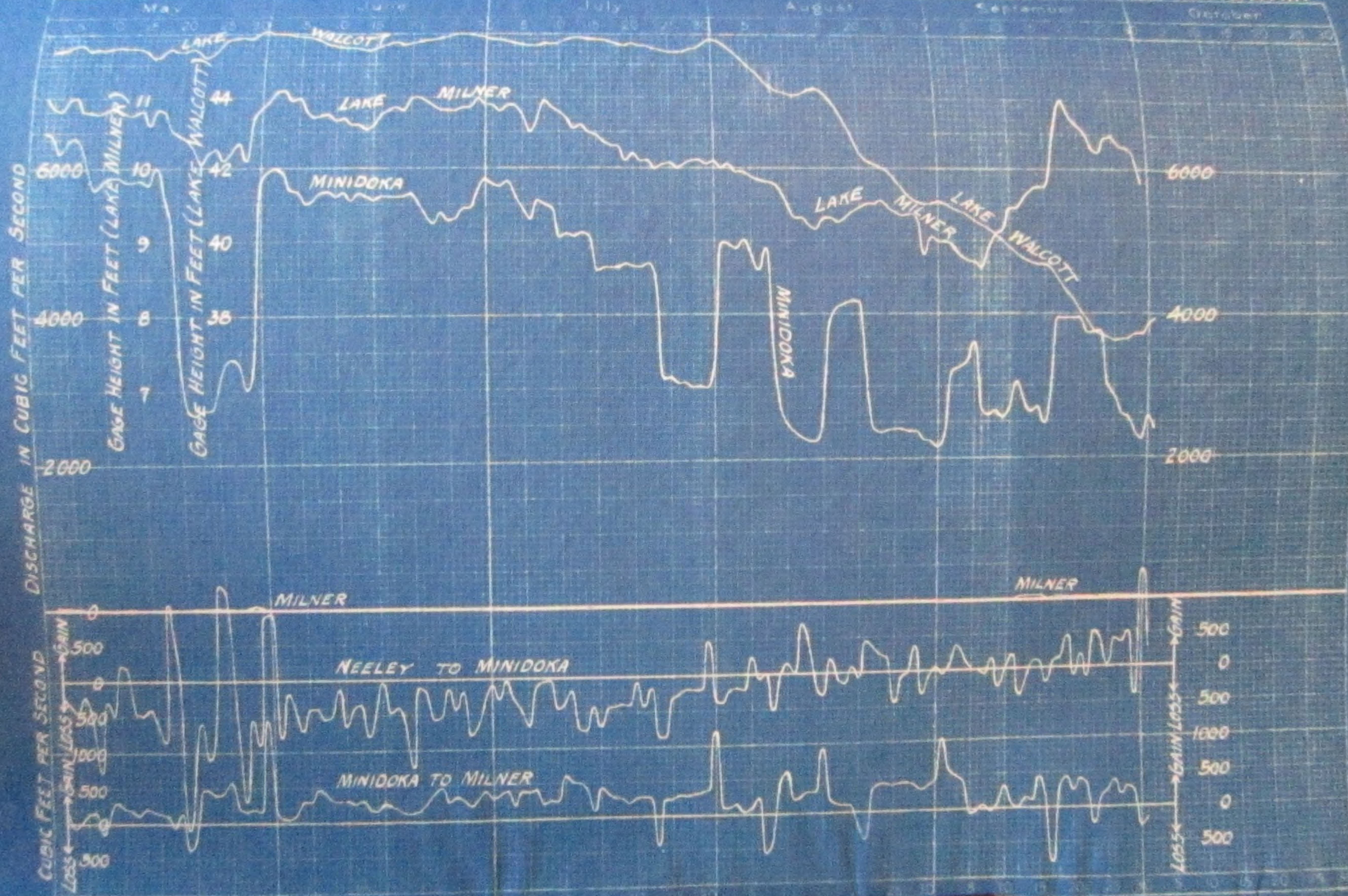
Year	Gain	Year	Gain
1919	2340	1923	2701
1920	2435	1924	2279
1921	2529	1925	2495
1922	2564	1926	2456

8 year average 2475

When we consider the fact that 1926 was, next to 1919 and 1924, the year of greatest deficiency in water supply the mean of 2456 second-foot appears to be somewhat larger than might be expected. Considerably more water was diverted from Blackfoot River in 1926, through the recently enlarged canal system of the U. S. Indian Irrigation Service for application to Reservation lands adjacent to the American Falls Reservoir basin, than in any previous year, hence the return from this source was undoubtedly greater than ever before. With these facts in mind the results appear very reasonable and further substantiate the previously described methods used herein for the determination of normal flow at Noeloy.

Plate XVIII shows net gain or loss graphs for the two sections between the Noeloy and Minidoka and the Minidoka and Milner gaging stations respectively. It also includes curves showing the fluctuations in water surface elevation at both Lake Walcott and Lake Milner, together with hydrographs for the river stations below the Minidoka and Milner dams. All these are plotted to coincide with Lake Walcott or Minidoka dates.

HYDROGRAPHS ILLUSTRATING NET LOSSES AND GAINS BETWEEN NEELEY AND MILNER GAGING STATIONS
 1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE XVIII.



The flow past Milner Dam was limited at all times during the summer to leakage and was so small in amount as to be almost undecipherable on the scale of these diagrams.

The general trend of the gain or loss curves, as well as the irregularities noted therein, differ but little from those of former years and can probably be similarly explained.

The average net loss for the entire season for the section from Neeley to Minidoka amounted to 197 second-feet while for the corresponding period the average net gain recorded between Minidoka and Milner was 230 second-feet, or a mean daily gain for the combined section of only 33 second-feet. This is by far the smallest net gain recorded for this portion of the river during any one of the last eight seasons and seems to indicate unusual conservation of water on the Minidoka Project.

Most of the more pronounced irregularities in the two gain or loss graphs are probably due to (1) in-applicability at certain river stages of the single time interval used; (2) wind effect on the ponded water of Lakes Walcott and Milner; (3) increase or decrease of Lake Milner storage which was not taken into account in the computations.

NORMAL FLOW COMPARISON

The purpose of Plate XIX is to afford a condensed comparison of the normal flow water supply available during the respective irrigation seasons 1919-1926 for the so-called Idaho Falls area. It consists of a table showing by months the principal component parts which make up the normal flow of Snake River and the extent to which water of this character

SUMMARY BY MONTHS OF NORMAL FLOW CONDITIONS BETWEEN THE HEISE-REXBURG AND BLACKFOOT GAGING STATIONS IRRIGATION SEASONS 1919-1926.

IRRIGATION DISTRIBUTION WATER DISTRICT NO 36

PLATE NO. XIX

YEAR	HEISE NOR. FLOW	REXBURG	BLACKFOOT RIVER	RETURN FLOW HEISE TO BLACKFOOT	NORMAL FLOW GAINS FROM STORED LOSS	TOTAL NORMAL FLOW SUPPLY	TOTAL DIVERSIONS HEISE TO BLACKFOOT	STORED DIVERSIONS HEISE TO BLACKFOOT	NORMAL FLOW DIVERSIONS HEISE TO BLACKFOOT	BALANCE AT BLACKFOOT STATION	NORMAL FLOW PASSING BLACKFOOT STATION
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JUNE

1919	241439	22477	400	-18994	16728	262050	264752	10433	254319	7731	7731
1920	552010	84910	3205	-14579	0	625546	310026	0	310026	315520	315520
1921	683677	153110	5039	-33854	0	807972	277462	0	277462	530510	530510
1922	595489	113110	8190	-2304	0	714485	331545	0	331545	382940	382940
1923	482579	90200	11597	23918	0	608294	262414	0	262414	345880	345880
1924	503207	15476	201	10631	4577	334092	233547	-66484	300031	34061	34061
1925	499874	123010	4830	25290	0	653004	314594	0	314594	338410	338410
1926	273756	24483	78	12507	14003	324827	271980	-29310	301290	23537	23537

JULY

1919	121226	21652	14	-4693	12321	150520	180218	35521	144697	5823	5823
1920	353997	31670	4810	8812	6048	405337	317285	7089	310196	95141	95141
1921	308767	30480	3213	5651	7803	355914	323826	11031	312795	43119	43119
1922	297376	31066	6471	25067	10796	370775	321988	4681	317307	53468	53468
1923	365108	28661	5864	22459	10881	432973	328971	4020	324951	108022	108022
1924	171278	17345	655	23098	9853	222229	255842	39689	216153	6076	6076
1925	481518	82730	4470	38754	7175	564647	331306	3577	327729	236918	236918
1926	161280	28155	54	18374	14360	222223	243236	24417	218819	3404	3404

AUGUST

1919	98839	19894	78	3938	5123	127872	129054	2217	126837	1035	1035
1920	177244	24553	5266	34866	6390	248319	259201	25851	233350	14969	14969
1921	182975	35843	8209	29756	5620	262403	260670	10608	250062	12341	12341
1922	192659	34222	6897	37086	7071	277935	252849	15156	237693	40242	40242
1923	178904	28659	5979	35700	11008	260250	265384	23833	241551	18699	18699
1924	101953	25686	16	13484	6060	147199	210169	67074	143095	4104	4104
1925	213661	45400	5963	32383	15047	312454	281504	3753	277751	34703	34703
1926	127966	28940	134	14822	5264	177126	198605	23454	175151	1975	1975

SEPTEMBER

1919	87115	22501	345	2234	0	112195	107517	0	107517	4678	4678
1920	66389	21130	2290	10585	521	100915	71638	0	71638	29277	29277
1921	129235	50960	4525	26655	184	211559	149132	0	149132	62427	62427
1922	133751	39758	1996	15950	0	191455	142769	0	142769	48686	48686
1923	120623	30825	3798	23299	5571	184116	194718	22851	171867	12249	12249
1924	87479	24983	503	15364	1890	130219	141596	15613	125983	4236	4236
1925	142414	56000	9268	23884	2280	233846	150283	0	150283	83563	83563
1926	95080	29468	1064	10731	2172	138515	142137	4869	137268	1247	1247

NOTES

ALL DISCHARGE QUANTITIES LISTED IN SECOND FEET
THEORETICAL; SEE TEXT FOR EXPLANATION.
INCLUDES EMMA, MATILDA AND TWO OCEAN LAKE STORAGE.
RECORDS FOR SEPTEMBER 1-15 (INCLUSIVE) ONLY.
RECORDS FOR SEPTEMBER 1-28 (INCLUSIVE) ONLY.

is used in the territory between the Heise and Roxburg gaging stations at the upper end and the Blackfoot or Clough station at the lower end of this section.

The quantities listed are all summarized from the more extensive river data tables contained in District No. 36 Water Distribution Reports. Time intervals have been adjusted to correspond as nearly as practicable to Heise dates.*

The following brief explanation which is almost identical with that contained in the 1925 report is included for the convenience of the reader:

- Columns 1-4 Sufficiently described by headings.
- Column 5 Net gain in the section. To be complete it should probably have added to it the quantities contained in the same lines in Column 6.
- Column 6 If the storage transmission loss is correctly determined, any indicated normal flow gain from that source is really additional return flow. The quantities shown in this column reflect changes in transmission loss schedules which should be taken into account in comparing the data for different years.
- Column 7 The algebraic sum of the quantities listed in the five preceding columns.
- Column 8-10 Headings afford sufficient explanation.
- Column 11 "Total Normal Flow Supply" less "Normal Flow Diversions Heise to Blackfoot."
- Column 12 Equivalent to column 11 on which it affords a check, as the results here given for all years except 1924, 1925 and 1926 were taken direct from the river data sheets. Because of the use of the Blackfoot Bridge rather than the older Blackfoot or Clough station as an adjustment point, theoretical rather than actual totals must be used for the latter point in these three years if a check on column 11 is to be secured.

*1922 and 1923 reports erroneously state that these records have been adjusted to correspond with actual canal diversion dates.

The 1924 and 1926 segregations of diversions as between stored water and normal flow are complicated by the exchanges which were made. For example, the minus storage shown as being diverted during June of these years represents the excess of the normal flow accepted for exchange over actual storage diversions while the normal flow shown as diverted in the same month very evidently is a theoretical rather than an actual quantity.

The analysis of 1926 conditions afforded by this comparative summary illustrates very plainly certain more or less pronounced peculiarities, some of which have already been mentioned.

(1) The total normal supply for the months of June and July was less than in any other year except 1919 while for August and September and for the four month period it was less than in any other year listed except 1919 and 1924.

(2) The return flow entering between Heise and Blackfoot was, with two exceptions, the largest of record for the month of June but decreased in amount in comparison with other years until September when it was, with one exception, the least of record.

(3) The combined total diversions for the entire four months were less than for any of the other years shown except 1919 and 1924 and were only slightly larger than the latter year.

(4) Total normal flow diversions between Heise and Blackfoot, except for 1919 and 1924, were the smallest recorded for July, August and September during the eight year period.

(5) Less normal flow passed Blackfoot during the four months tabulated than in any other year except 1919.

1926, therefore, must be classed as a low water year similar in many respects to 1924, although in general it afforded a somewhat better irrigation water supply than the latter.

GROUND WATER

In connection with the Mooker investigation, records were maintained during the 1923 irrigation season on 134 wells distributed over what was designated as the Snake River Cone -- a triangular area extending in a general northwesterly direction from an apex at the Hoise gaging station.

The ground water levels throughout this triangle are believed to have a material influence not only upon the river losses between the Hoise and Lorenzo gaging stations, but also on the amount of return flow noted as entering between Lorenzo and Woodville. For this reason it seemed advisable to secure additional observations during subsequent seasons. Because of the more intensive regular work required during the water shortage year of 1924 only one set of measurements was then obtained but in 1925 records were secured once each month from May to September inclusive. In 1926 from three to five wells (27 in all) were selected in each of the following described six groups and were measured once each month from June to September inclusive.

Group No. 1.

Wells located on the south side of the Great Feeder Canal and East of the Yellowstone Branch of the O.S.L.R.R.

Group No. 2.

Wells located on the south side of the Great Feeder Canal and west of the Yellowstone Branch of the O.S.L.R.R.

Group No. 3.

Wells located on the north side of Snake River between Heise and the Yellowstone Branch of the O.S.L.R.R.

Group No. 4.

Wells located between Snake River and the Great Feeder Canal and east of the Yellowstone Branch of the O.S.L.R.R.

Group No. 5.

Wells located between Snake River and the Great Feeder Canal and west of the Yellowstone Branch of the O.S.L.R.R.

Group No. 6.

Wells located on the north side of Snake River and west of the Yellowstone Branch of the O.S.L.R.R.

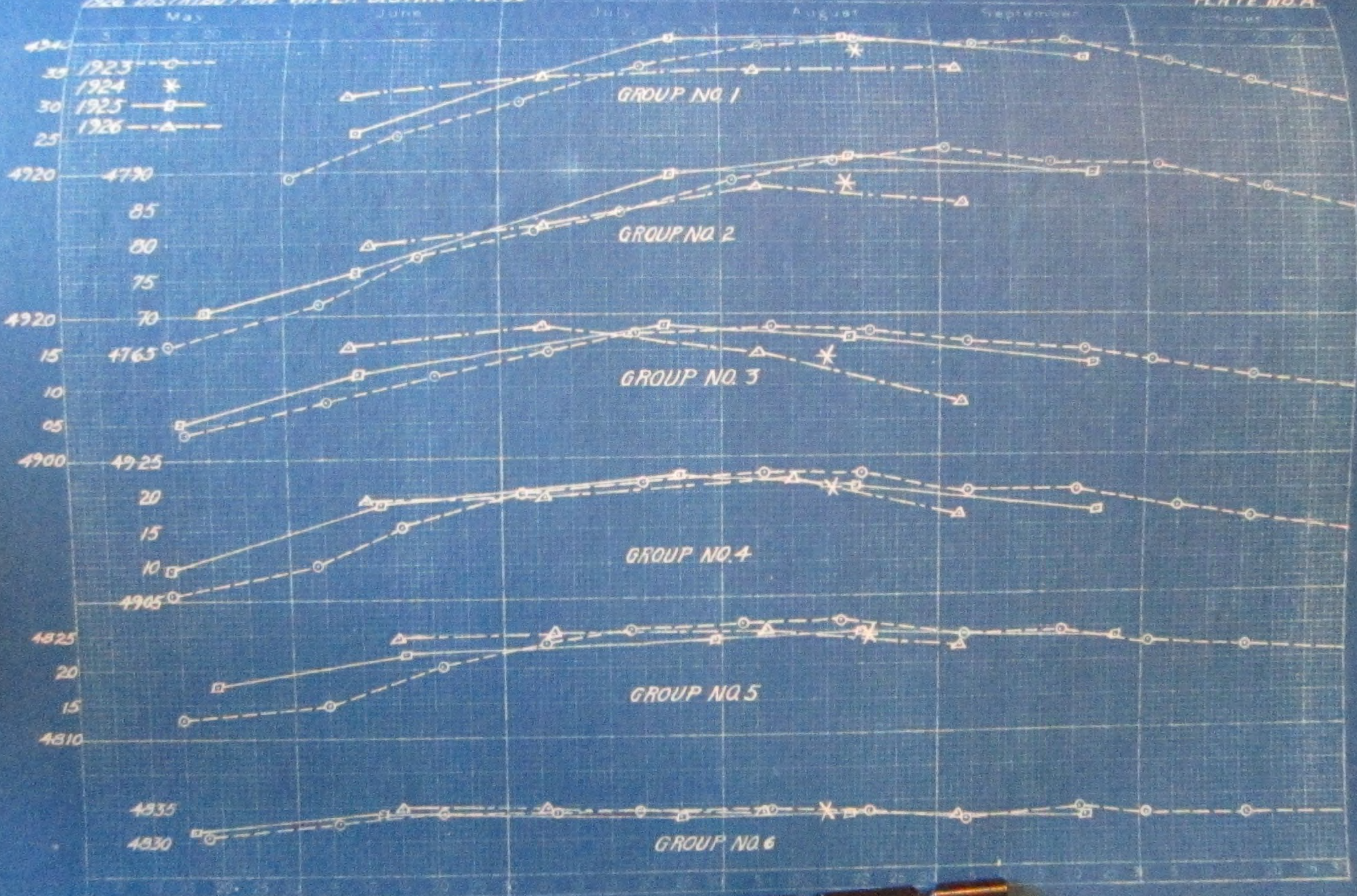
This segregation corresponds to that described in preceding reports but, because all the wells were not measured, 1926 average results cannot consistently be plotted and shown on the same graphs which were used in the 1925 report.

Plate A contains similar diagrams based upon mean results obtained from water level observations at the smaller number of wells for which records are available during each of the last four years. While these necessarily afford less dependable results the general trend and characteristics of ground water changes are almost as well indicated and will be briefly discussed.

In general, the curves which show the greatest fluctuations are those for areas where the wells are the deepest, while the flat curves of groups 5 and 6 cover districts where the wells are comparatively shallow and where sub-irrigation is practiced.

DIAGRAMS SHOWING PROGRESSIVE CHANGES IN GROUND WATER LEVELS ON SO-CALLED HEISE-LORENZO CONE 1923-1926
 1926 DISTRIBUTION WATER DISTRICT NO. 36

1923-1926
 PLATE NO. A



June readings show uniformly higher and both August and September likewise indicate lower water table elevations in 1926 than in any of the other three years. This condition helps materially to explain the losses noted between the Heise and Lorenzo gaging stations and the Heise-Woodville return flow variations to which attention has previously been called herein.

The great value of early irrigation for the specific purpose of increasing ground storage is also evidenced.

WATER DISTRIBUTION AND HYDROMETRIC WORK IN THE SPRINGFIELD - STERLING SECTION.

Between the irrigated lands of the Aberdeen-Springfield system and Snake River there is a comparatively narrow strip of land, part of which has for many years been irrigated while a smaller portion has gradually been put under irrigation since the construction and coincident with the operation of the Aberdeen-Springfield canal.

The water supply for the first developed portion of this area comes from what are known as Danilson, Crystal, Hull and McTucker Springs and from Boone Creek, a short spring fed stream. Rights to the use of this water were granted in the so-called Stufflebeam decrees of 1902 and 1908 and in the regular 1910 Snake River decree. Most of these rights antedate the oldest of those held by the larger lower river canals which, under the Foster decree, have a priority of October 11, 1900.

The other and smaller area depends for its water supply upon the smaller Colborn, Alkali and Artesian Springs or Creeks which were either non-existent or were so small as to be of no material

consequence prior to the irrigation of Aberdeen-Springfield Company lands. Use of water from these latter sources depends for its authorization upon permit or license rights of comparatively recent date.

Prior to 1926 no regulation of diversions had ever been attempted in this Springfield-Sterling section for the reason that the net loss of water resulting from illegal use was believed to be so small as to make the expense of the work unjustifiable.

When a demand was made by the Twin Falls Canal Company under date of March 15, 1926 to have all these diversions regulated during the subsequent irrigation season it, therefore, became necessary to establish gages, make preliminary measurements and otherwise prepare for this work.

This early season investigation and construction was begun by Mans H. Coffin during the latter part of April. C. T. Judah replaced Mr. Coffin about May 20 and remained in direct field charge of both regulation and hydrometric work until August 31, by which date the use of water for irrigation had decreased to such an extent as to make daily records no longer warranted. Local headquarters of these men were maintained at Sterling, Idaho.

Practically all of the canals in this section proved to be short and of small capacity, while in several cases individual holdings were irrigated from more than one ditch. In fact under the existing decrees it was not only possible but was common practice for one or two users to divert their rights through as many as three different ditches with no limitation other than as to total amount.

This situation together with the fact that the irrigators had never before been subjected to restrictions of any sort made the work of regulation rather difficult. The deputy water master was several times threatened and on one occasion assistance from the sheriff's office was requisitioned.

Regulation was of little real value after the temporary injunction of June 3, to which reference has already been made (see page 17), became effective, but records of the amount diverted by each canal were secured throughout the balance of the season. These are summarized on Plates XX and XXI. Data for the first half of May and for the month of September are partially estimated or interpolated but the information included for the balance of the five months period is based upon daily observations.

WATER DISTRIBUTION AND HYDROLETRIC WORK
IN THE HENRYS FORK - FALL RIVER - TETON AREA

The position of hydrographer and deputy water master in direct charge of hydrometric work and water distribution in the so-called North Fork section was once more filled by C. A. McClelland who was also appointed as Special Deputy to supervise the delivery of stored water from Henrys Lake Reservoir. All other deputies and assistants working in this area reported to and received their instructions from him, while he in turn worked under general orders issued from the office at Idaho Falls.

Summer headquarters for this work were maintained in the room formerly occupied by the County Surveyor at the Court House, St. Anthony, Idaho, which was made available through the courtesy of the Fremont County Commissioners.

The following abstract from a report prepared by Mr. McClelland affords a brief general summary of the work in this part of District No. 36:

Canal and river measurements, gage readings and minor repairs to station equipment as usual occupied the time of the available personnel during the early part of the season.

John H. Reed assisted with this work beginning May 4 and filled the combined position of hydrographer and deputy water master for the Teton River division throughout the balance of the season.

Regular daily gage readings and reports were initiated May 20 and maintained until September 30.

While stream discharge even during the early part of the season was below normal, it was somewhat better sustained than in 1924. By June 14, however, the entire available normal flow was being utilized and Henrys Fork was practically dry immediately below the diversion dam of the Consolidated Farmers Canal. For several days thereafter it was necessary to cut off decreed rights beyond or in advance of the main Snake River regulation but beginning about June 20 and continuing through the remainder of the summer the restrictions imposed by the latter also governed diversions from Henrys Fork and Fall River.

Fortunately, because of the large carry-over from the preceding year and the settlement of most of the right of way disputes, more storage was available in Henrys Lake Reservoir than had ever before been impounded there. Slightly more than 10,000 acre-feet of this water was sold to non-stockholder canals but the supply was not sufficient to fill all applications of this character. Furthermore, the limited flow of Fall River made it impracticable to furnish water to canals on that stream through exchange, in the amount and to the extent desired.

Temporary transfers which were again permitted under the final river operation agreements totalled nearly 40,000 acre-feet for the season in spite of opposition to this practice on the part of some of the canals in this area.

Normal flow was better sustained than in either 1924 or 1919 and this fact together with the supplemental water which was procurable either by storage purchase or through temporary transfers reduced prospective crop losses very materially.

The need for a storage reservoir on Upper Fall River was again evident and was undoubtedly impressed upon the U. S. Senate Public Lands Committee members and others who visited this section August 17-18 and conducted a hearing at St. Anthony on the latter date.

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM HENRYS FORK AND TRIBUTARIES FOR JUNE 1926.

FALL RIVER CANALS

	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	TOTAL	
YELLOWSTONE	0	5	10	11	14	15	18	26	30	30	31	31	29	29	18	23	23	24	8	0	0	0	0	0	0	0	0	0	0	374		
HARRIGFIELD	23	21	20	26	28	26	31	30	28	26	23	23	20	18	16	16	16	20	9	0	0	0	0	0	0	0	0	0	420			
MARYSVILLE	40	159	167	169	179	186	187	188	184	180	181	182	175	170	176	176	181	180	0	0	0	43	129	105	105	52	0	0	0	25	3519	
TOTAL DIV ABOVE SQUIRREL	63	185	197	206	221	230	236	244	242	236	230	226	224	217	210	216	220	224	17	0	0	43	129	105	108	52	0	0	0	25	4317	
FARMERS OWN	46	42	43	48	51	33	32	32	32	32	31	31	31	33	35	32	32	31	5	5	5	5	5	5	30	30	11	0	0	0	0	743
ENTERPRISE	144	144	144	142	144	67	0	0	0	0	18	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	924
BELL	5	3	5	5	5	5	5	6	5	5	4	2	3	2	1	3	3	3	3	5	5	5	5	5	3	3	3	3	3	4	116	
FALL RIVER	401	392	411	416	451	470	54	441	430	452	411	411	422	399	344	407	407	401	396	458	428	426	397	320	318	350	340	390	397	418	11952	
M'BEE	7	8	8	6	6	6	11	11	10	9	7	2	1	1	2	2	1	1	2	3	11	11	8	5	4	11	4	4	6	4	172	
CHESTER	65	64	64	62	60	74	73	85	78	77	62	34	41	32	14	14	15	14	5	0	0	0	0	0	0	0	0	0	0	0	467	
SILKEY	20	16	12	10	10	22	28	21	20	20	14	7	6	6	1	1	1	16	15	20	24	24	24	24	19	18	18	18	19	19	1033	
CURR	33	33	0	0	0	44	43	42	42	44	40	41	41	40	39	37	40	40	44	43	42	33	33	32	32	34	34	34	33	75		
WHITE	4	1	0	0	0	3	4	4	5	4	2	0	4	2	0	0	0	3	3	5	5	5	3	3	2	2	2	2	2	2	75	
TOTAL DIV SQUIRREL TO CHESTER	725	703	687	689	727	724	250	642	622	643	571	556	549	515	511	496	499	509	469	540	521	518	475	473	467	457	442	456	462	450	16418	

HENRYS FORK CANALS

	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	TOTAL
DEWEY	23	22	22	23	23	23	22	22	23	24	22	20	23	22	25	23	24	23	22	22	21	20	19	19	20	20	22	23	23	23	663
LAST CHANCE	86	76	78	64	63	70	83	82	64	53	52	44	43	42	46	42	44	35	2	49	47	46	38	38	48	50	46	51	50	50	1586
ST ANTHONY UNION	486	521	432	429	434	416	535	476	429	414	391	360	337	341	404	391	416	445	443	465	423	360	342	373	377	375	382	357	447	501	12535
FARMERS FRIEND	214	217	200	194	190	185	204	203	191	172	155	104	105	119	117	109	45	0	0	0	2	2	0	0	0	0	0	0	0	0	3268
TWIN GROVES	147	152	151	150	150	144	153	153	146	140	92	86	87	109	109	95	121	111	130	140	131	130	121	133	133	24	0	0	0	0	5196
SALEM UNION	236	234	250	249	241	233	222	221	208	203	142	136	133	137	160	157	157	160	155	167	136	133	131	130	174	241	132	160	76	82	26376
TOTAL DIV ASHTON TO ST ANTHONY	1192	1222	1133	1109	1101	1071	1222	1157	1061	1006	854	750	759	770	861	817	807	777	752	843	760	691	651	693	752	740	422	521	496	646	7300
EGIN	322	322	309	305	301	295	218	249	243	211	213	207	249	250	271	284	271	276	269	250	250	184	177	209	206	258	267	301	297	285	7300
ST ANTHONY UNION FEEDER	76	65	60	54	52	67	74	54	46	31	35	27	27	26	27	42	47	53	56	60	57	49	41	43	38	31	39	47	60	72	1460
INDEPENDENT	234	227	257	242	238	259	263	254	242	221	217	219	225	229	240	203	259	231	221	203	185	193	189	201	195	195	199	221	217	217	6636
CONSOLIDATED FARMERS	261	236	235	250	246	206	208	223	252	240	240	236	223	210	202	210	170	111	223	235	229	229	228	240	200	95	100	100	98	118	6104
TOTAL DIV ST ANTHONY TO REXB'G	293	260	261	251	251	817	813	780	783	763	763	689	724	715	740	745	747	671	749	748	721	605	635	693	689	682	600	649	670	708	22070

TETON RIVER CANALS

	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	TOTAL
SIDDOWAY	0	0	0	0	0	0	0	19	19	23	22	19	17	15	20	18	19	18	18	19	0	0	0	9	10	6	6	7	7	7	258
WILFORD	142	137	136	135	135	132	131	130	134	130	125	127	122	119	115	110	109	115	115	114	105	79	61	62	62	71	69	78	86	77	3263
TETON IRRIGATION	14	16	17	0	0	81	80	82	81	90	83	82	80	80	72	67	69	74	70	60	62	74	70	72	75	77	74	66	60	62	1908
GOOD LUCK	19	18	18	19	19	18	18	25	26	26	24	30	29	29	27	27	25	25	25	24	24	17	12	15	9	9	9	10	10	10	391
PIONEER	28	27	27	25	28	27	27	29	31	29	24	21	19	17	18	0	16	16	16	17	17	15	16	14	15	15	15	16	16	16	532
STEWART	25	25	22	24	29	29	20	26	27	26	23	20	15	18	16	15	15	15	15	15	6	6	6	6	6	9	8	8	8	8	542
PINCOCK BYINGTON	6	5	6	4	19	19	19	19	19	20	19	14	14	11	10	9	8	6	6	6	6	6	6	6	6	6	6	6	6	6	648
PINCOCK GARNER	28	27	27	26	26	25	25	25	26	22	22	22	21	18	13	13	13	15	15	15	15	14	11	11	11	11	10	9	9	9	648
TETON ISLAND FELDER	378	352	339	333	336	333	333	320	327	365	324	299	308	261	246	233	219	194	196	196	196	219	217	233	244	236	219	230	219	184	6084
ROXANA	23	23	24	20	21	20	22	21	23	22	20	19	20	20	20	20	20	20	20	19	19	19	19	19	19	19	19	19	19	19	1332
ISLAND WARD	43	36	34	32	43	47	46	42	48	44	42	41	41	43	43	41	34	36	38	36	36	36	36	36	36	36	36	36	36	36	1332
WOODMANSEE JOHNSON	43	47	44	34	51	49	57	57	63	56	53	52	51	43	50	41	34	36	38	36	36	36	36	36	36	36	36	36	36	36	1332
CITY OF REXBURG	42	50	49	53	48	44	47	40	48	48	41	49	49	49	41	39	39	35	35	36	33	34	42	43	40	30	31	29	26	28	1245
REXBURG IRRIGATION	187	171	185	214	197	195	191	181	201	199	151	137	132	129	158	106	12	105	112	127	123	111	170	134	119	124	114	112	119	4416	
TOTAL DIVERSIONS	1003	962	957	939	957	909	1041	1056	1096	1076	1013	942	844	763	709	764	766	758	727	721	614	613	692	642	646	674	651	619	619	619	24627

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM HENRYS FORK AND TRIBUTARIES FOR JULY 1926.

FALL RIVER CANALS

	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	
YELLOWSTONE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HARRISFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MARYSVILLE	98	99	99	99	99	98	103	120	121	120	57	22	22	21	20	14	10	9	9	9	9	9	9	9	8	9	8	8	44	70	70	1502	
TOTAL DIV ABOVE SQUIRREL	98	99	99	99	99	98	103	120	121	120	57	22	22	21	20	14	10	9	9	9	9	9	9	9	8	9	8	8	44	70	70	1502	
FARMERS OWN	0	0	0	0	0	0	26	37	38	37	37	46	38	38	37	36	36	38	37	37	37	12	0	0	0	0	0	0	0	0	0	587	
ENTERPRISE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	44	43	42	70	58	64	63	63	26	0	0
BELL	4	2	2	2	2	2	2	2	1	1	1	4	4	4	4	4	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
FALL RIVER	376	361	358	361	361	358	358	358	361	339	344	354	354	342	345	346	341	348	346	344	330	335	334	337	350	356	356	352	362	362	346	10363	
MCBEE	4	4	4	4	4	4	3	2	3	3	3	6	6	7	7	5	0	0	0	2	2	3	3	4	3	0	0	3	3	5	5	104	
CHESTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SILKEY	20	18	18	15	15	15	13	15	13	8	8	10	13	14	14	14	14	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
CURR	34	32	30	33	32	32	19	18	18	16	15	22	23	24	26	26	26	26	26	26	27	22	21	20	21	21	33	24	24	29	23	23	767
WHITE	2	2	2	2	2	0	0	0	0	0	0	2	2	3	2	3	1	1	2	2	1	1	0	1	0	0	0	0	1	0	2	34	
TOTAL DIV SQUIRREL TO CHESTER	440	419	414	417	416	411	421	432	434	488	470	444	440	432	435	434	434	422	419	413	415	414	400	401	444	445	446	442	443	406	376	18217	

HENRYS FORK CANALS

	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
DEWEY	24	23	22	22	23	22	22	22	22	22	22	17	18	17	18	20	21	21	12	9	12	21	24	24	24	2	18	21	20	20	20	605
LAST CHANGE	49	50	53	52	50	46	45	45	46	46	45	28	30	28	31	35	39	38	40	40	38	38	36	34	34	33	33	40	40	38	87	1837
ST ANTHONY UNION	499	378	377	326	323	315	315	321	317	326	328	362	391	360	413	420	461	472	481	479	481	479	481	495	450	454	429	407	371	371	371	12347
FARMERS FRIEND	0	0	40	40	41	41	43	40	41	33	109	65	56	45	45	52	48	46	47	47	48	46	50	49	48	0	0	0	0	0	0	1170
TWIN GROVES	0	0	0	26	41	79	103	81	81	131	152	130	142	94	79	123	117	119	130	120	119	95	79	78	78	82	78	78	78	78	21	2652
SALEM UNION	233	232	230	233	233	233	232	233	208	206	184	176	216	218	160	121	123	121	121	123	124	126	123	124	123	123	121	121	119	121	123	4184
TOTAL DIV ASHTON TO ST ANTHONY	865	683	702	699	711	736	760	742	716	814	840	778	813	762	746	771	809	817	821	818	822	805	807	789	761	669	657	631	623	632	672	23144
EGIN	243	240	245	243	243	243	223	222	216	211	214	229	229	238	193	240	265	267	267	190	225	292	274	246	246	246	252	240	241	240	230	7268
ST ANTHONY UNION FEEDER	78	69	67	49	48	39	40	39	36	47	51	43	51	61	70	72	68	71	70	75	73	71	78	68	70	73	73	70	68	69	69	1936
INDEPENDENT	213	229	223	221	221	225	223	221	203	209	225	219	250	289	257	242	229	216	213	209	209	199	189	185	185	209	187	189	195	199	197	6679
CONSOLIDATED FARMERS	137	232	226	206	218	217	206	178	199	198	198	188	188	196	174	196	198	198	157	80	154	152	150	148	150	151	150	120	71	69	69	5794
TOTAL DIV ST ANTHONY TO REAB'G.	671	770	761	689	700	694	692	660	654	675	653	679	718	734	674	750	760	751	707	554	661	741	691	646	650	683	667	629	575	430	480	21017

TETON RIVER CANALS

	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
SIDDOWAY	11	10	9	9	8	6	6	8	9	8	5	4	4	4	3	3	3	3	3	3	3	3	3	2	2	1	1	1	1	1	1	144
WILFORD	69	71	69	64	64	64	64	62	60	58	50	54	53	54	54	54	61	64	72	74	71	73	68	66	63	47	50	50	40	40	41	1821
TETON IRRIGATION	65	61	61	61	59	59	60	54	64	56	48	58	67	65	61	61	63	63	63	51	65	62	61	61	57	55	51	50	47	46	44	1779
GOOD LUCK	11	11	13	13	13	14	14	14	16	15	14	13	13	12	12	14	13	12	13	13	12	12	12	11	11	9	8	8	7	8	8	373
PIONEER	20	19	17	15	15	15	14	16	18	15	14	14	11	9	9	0	16	13	14	18	12	14	12	20	11	13	14	14	15	15	15	439
STEWART	15	15	15	14	14	15	14	15	15	14	12	12	12	13	13	12	12	12	11	10	13	11	11	10	10	11	11	11	11	11	11	391
PINCOCK BYINGTON	7	7	7	7	7	6	6	7	9	9	8	8	7	0	0	0	0	0	8	10	7	7	7	7	7	7	7	7	7	7	7	230
PINCOCK GARNER	8	9	7	7	7	6	7	10	9	8	8	8	7	7	7	6	7	8	9	9	7	7	6	6	6	7	7	8	8	6	8	230
TETON ISLAND FEEDER	212	209	201	199	199	196	201	238	258	233	201	206	194	199	191	191	186	169	154	191	183	189	135	134	132	136	136	145	146	147	134	5532
FOXANA	18	18	18	18	18	16	16	6	10	12	12	4	12	14	14	13	13	13	11	11	10	10	10	9	8	8	5	9	9	8	8	306
ISLAND WARD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOODMANSEL JOHNSON	3	0	0	0	0	0	0	0	3	16	16	14	10	4	0	2	4	4	4	4	4	4	4	4	3	4	4	3	3	4	3	129
CITY OF REXBURG	38	39	34	30	30	23	28	33	33	34	34	32	26	30	29	30	30	26	24	26	27	27	28	28	25	27	28	30	32	30	910	
REXBURG IRRIGATION	131	139	130	130	129	141	140	149	149	149	128	124	120	134	120	119	134	101	80	38	103	104	104	101	99	104	104	126	132	128	122	3777
TOTAL DIVERSIONS	598	598	481	571	563	461	470	612	658	632	555	583	542	471	416	506	472	432	463	401	476	453	462	459	437	624	630	641	424	434	633	16070

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM HENRYS FORK AND TRIBUTARIES FOR AUGUST 1966

FALL RIVER CANALS																																		
	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		
YELLOWSTONE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HARRIGFELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MARYSVILLE	70	71	70	81	81	81	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL DIV ABOVE SQUIRREL	70	71	70	81	81	81	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FARMERS OWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ENTERPRISE	0	0	0	0	0	0	0	0	0	31	56	55	57	56	51	0	43	42	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BELL	0	0	0	0	0	0	1	2	0	0	0	0	1	1	1	1	1	2	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
FALL RIVER	348	348	356	346	346	341	343	312	334	308	325	314	269	269	263	262	260	258	268	258	254	254	253	253	254	251	251	251	251	251	251	251	251	
MCBEE	4	11	4	4	4	3	3	4	2	0	0	3	5	3	6	6	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
CHESTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SILKEY	0	0	0	0	0	3	2	16	7	0	0	12	14	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
GURR	22	22	22	21	21	21	20	22	22	22	22	22	23	23	22	24	23	23	25	24	23	22	22	23	23	23	23	23	23	23	23	23	23	23
WHITE	2	2	3	2	3	2	2	3	4	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL DIV SQUIRREL TO CHESTER	376	383	383	373	374	370	377	359	369	364	406	409	371	373	362	371	350	347	330	312	303	299	299	305	300	296	294	288	280	284	290	284	290	

HENRYS FORK CANALS																																	
	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	
DEWEY	20	20	20	20	20	19	20	20	16	17	16	16	16	16	13	13	14	13	13	13	13	13	12	11	12	11	12	11	12	12	12	12	12
LAST CHANCE	33	35	34	36	36	26	34	33	30	31	32	35	34	32	33	34	29	28	33	31	32	32	32	31	30	30	32	30	33	34	18	345	
ST ANTHONY UNION	346	378	348	378	387	376	382	378	376	287	273	288	283	271	249	264	257	254	256	269	256	254	259	248	294	292	312	299	300	310	310	3485	
FARMERS FRIEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TWIN GROVES	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
SALEM UNION	123	123	124	127	124	123	123	124	126	124	123	126	123	123	123	124	123	126	126	123	123	123	124	121	121	76	79	40	40	40	0	3328	
TOTAL DIV ASHTON TO ST ANTHONY	542	556	526	561	567	541	559	559	551	463	428	469	453	446	420	420	417	426	428	437	424	422	413	422	426	411	392	385	392	402	336	14312	
EGIN	222	195	249	254	243	243	207	211	204	206	189	187	187	187	192	204	206	209	209	204	175	170	187	180	184	192	187	194	204	197	200	6276	
STANTHONY UNION FEEDER	70	62	62	62	62	63	64	63	61	64	61	61	61	61	61	52	53	53	53	54	54	53	53	51	53	50	52	54	56	56	57	1787	
INDEPENDENT	115	160	144	179	181	179	189	179	170	185	185	187	168	168	170	180	185	184	181	187	183	193	183	166	93	195	187	181	191	187	189	5240	
CONSOLIDATED FARMERS	69	69	63	67	120	152	151	158	65	66	64	104	109	113	102	103	120	123	123	124	124	126	78	80	91	90	98	102	102	99	93	3182	
TOTAL DIV STANTHONY TO REXBURG	476	486	518	562	606	637	611	611	500	521	499	539	525	529	515	546	564	570	546	549	534	543	50	477	471	335	324	344	553	439	409	14765	

TETON RIVER CANALS																																	
	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	
SIDDOWAY	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
WILFORD	38	40	40	38	39	38	42	42	44	53	48	62	71	65	66	68	66	66	69	67	66	69	67	65	63	64	62	64	68	74	78	1812	
TETON IRRIGATION	48	44	49	43	60	46	47	41	40	38	44	46	45	46	46	43	43	44	44	43	42	43	42	40	43	40	36	34	44	44	34	1376	
GOOD LUCK	8	8	9	9	10	10	9	9	11	11	11	11	10	10	9	9	9	9	9	9	10	9	10	10	10	8	8	8	8	8	10	9	289
PIONEER	15	13	14	15	15	13	13	14	14	12	11	9	9	10	8	8	9	9	10	10	9	9	9	9	9	9	9	9	10	13	12	338	
STEWART	11	10	11	11	12	12	11	12	13	13	14	13	12	12	10	10	10	10	11	11	10	10	10	10	10	8	8	8	9	9	9	9	350
PINCOCK BYINGTON	6	6	6	6	7	7	7	7	9	8	8	8	8	8	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
PINCOCK GARNER	9	9	9	9	10	8	9	10	11	10	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
TETON ISLAND FEEDER	132	129	129	134	149	143	138	145	169	167	167	147	149	143	123	119	21	121	127	14	14	119	14	14	12	106	104	112	119	112	119	112	119
ROXANA	8	6	7	7	6	6	7	8	8	8	9	9	10	9	9	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
ISLAND WARD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOODMANSET JOHNSON	3	4	4	4	6	5	3	3	4	4	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CITY OF REXBURG	29	20	28	25	24	23	24	25	30	30	30	28	27	25	25	24	24	24	24	24	24	24	24	24	24	23	23	24	25	26	26	26	26
REXBURG IRRIGATION	119	117	118	122	130	122	130	147	147	149	140	134	135	117	122	117	117	125	124	124	123	120	117	113	108	103	103	103	108	117	120	120	120
TOTAL DIVERSIONS	431	411	423	425	439	434	441	476	456	493	507	487	471	479	423	436	427	429	427	430	420	414	426	414	414	393	377	376	403	434	433	434	

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM HENRYS FORK AND TRIBUTARIES FOR SEPT. 1926.

FALL RIVER CANALS

	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	TOTAL	
YELLOWSTONE	0	0	0	0	0	4	2	3	4	4	4	5	5	5	5	5	5	5	5	5	5	2	0	0	1	2	2	2	3	3	3	84
HARRIGFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MARYSVILLE	0	0	0	0	0	0	9	14	14	14	14	14	16	16	16	16	16	17	22	26	11	0	0	7	7	7	7	7	16	22	308	
TOTAL DIV ABOVE SQUIRREL	0	0	0	0	0	4	11	17	18	18	18	19	21	21	21	21	21	22	27	31	13	0	0	8	9	9	9	10	19	25	392	
FARMERS OWN	0	0	0	0	0	0	0	0	0	0	0	0	4	5	5	5	5	4	4	8	3	5	3	0	0	0	0	0	0	0	51	
ENTERPRISE	0	0	6	0	0	0	0	0	0	0	0	0	0	26	48	49	49	48	29	0	42	42	44	43	45	43	45	44	46	647		
BELL	2	2	1	0	0	0	0	0	1	2	2	2	2	2	2	1	1	1	1	1	0	0	0	2	1	2	3	3	3	37		
FALL RIVER	235	236	28	0	0	136	240	79	240	236	8	238	226	229	226	211	211	209	209	211	215	222	222	226	222	220	222	190	154	159	6426	
M'BEE	2	2	2	2	3	4	2	9	1	1	1	1	1	1	1	0	1	1	1	1	1	1	3	2	3	2	4	4	4	68		
CHESTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	20	21	22	13	0	0	0	5	0	9	7	8	8	124		
SILKEY	0	0	0	0	0	0	0	0	6	16	17	15	15	15	15	8	9	10	9	7	0	6	5	0	1	6	11	17	16	17	221	
CURR	17	18	18	17	18	16	16	14	14	14	16	15	15	15	17	16	16	23	22	27	22	23	23	22	11	22	11	11	11	506		
WHITE	2	1	2	3	4	4	1	1	0	1	4	1	0	0	0	0	0	0	0	0	0	2	2	2	3	2	2	2	4	45		
TOTAL DIV SQUIRREL TO CHESTER	258	259	57	22	25	160	259	103	262	270	48	272	263	267	292	300	312	318	316	292	241	301	296	297	289	299	302	289	246	254	7119	

HENRYS FORK CANALS

	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	TOTAL
DEWEY	0	12	11	12	12	12	12	12	12	11	11	10	10	11	11	10	10	4	4	4	4	5	5	21	27	15	18	19	13	20	341
LAST CHANCE	0	32	34	6	40	44	41	36	37	38	36	35	40	36	36	36	36	36	36	36	35	38	38	46	40	45	44	44	44	1099	
ST ANTHONY UNION	314	308	314	268	269	268	252	254	258	251	254	249	251	235	230	229	229	222	225	222	226	227	227	215	222	222	182	177	179	7115	
FARMERS FRIEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
TWIN GROVES	4	4	4	4	4	4	4	4	4	4	4	4	10	4	3	26	26	27	26	9	4	6	6	5	6	6	22	24	28	328	
SALEM UNION	0	4	40	40	40	40	40	36	36	37	37	35	98	94	100	100	101	104	104	92	84	82	82	82	79	85	74	0	0	1923	
TOTAL DIV WASHINGTON TO ST ANTHONY	318	397	403	330	363	368	349	342	347	391	392	373	409	380	380	401	402	393	395	363	352	363	363	375	369	376	344	274	269	233	10210
EBIN	187	187	185	187	187	184	182	150	155	153	105	122	104	108	111	110	111	105	108	103	111	111	111	114	111	111	108	111	111	110	3948
ST ANTHONY UNION FEEDER	59	57	57	59	60	60	55	58	55	54	59	57	54	49	42	42	41	41	39	41	42	42	42	43	45	42	43	51	51	1499	
INDEPENDENT	189	193	183	189	187	131	136	148	177	183	172	172	181	183	185	141	139	136	136	134	136	121	121	123	100	119	101	106	104	106	4432
CONSOLIDATED FARMERS	96	98	98	99	99	99	96	98	98	95	95	96	95	96	96	91	93	93	95	75	71	69	69	71	94	96	95	95	40	0	2601
TOTAL DIV ST ANTHONY TO REXBURG	531	535	523	534	533	474	469	464	486	480	431	447	434	431	434	374	374	375	378	353	360	343	363	351	350	368	347	363	304	275	10480

TETON RIVER CANALS

	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	TOTAL	
SIDDEWAY	4	2	2	3	3	3	3	3	3	3	3	3	4	3	2	1	1	2	2	2	1	1	2	2	1	1	1	2	1	2	64	
WILFORD	73	74	73	74	58	63	61	62	61	67	55	31	38	38	38	38	39	37	40	39	40	40	40	43	43	45	45	43	45	1485		
TETON IRRIGATION	34	29	29	38	48	38	46	44	44	46	46	28	35	38	28	29	31	30	29	29	28	27	28	27	31	34	14	33	33	37	1006	
GOOD LUCK	9	9	9	9	9	9	9	10	9	9	9	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	8	8	7	9	379
PIONEER	12	12	11	10	10	11	14	13	11	10	10	10	12	12	13	14	15	15	15	15	13	11	12	14	17	14	17	10	12	14	213	
STEWART	9	9	9	9	9	9	9	9	11	7	7	6	8	8	8	8	8	8	8	8	7	7	6	6	4	3	3	3	3	4	168	
PINCOCK BYINGTON	5	5	5	5	4	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4	5	3	5	6	7	7	7	8	10	315	
PINCOCK GARNER	8	8	8	9	9	9	10	10	10	9	10	11	10	11	11	11	11	11	11	11	11	11	11	10	10	12	12	12	13	12	14	3304
TETON ISLAND FEEDER	112	108	106	102	96	104	112	108	100	93	94	104	104	102	104	112	112	112	114	108	100	100	100	104	105	125	127	134	125	137	3304	
ROXANA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0
ISLAND WARD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOODMANSEE JOHNSON	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CITY OF REXBURG	27	27	26	24	24	26	13	27	24	22	23	21	28	25	28	29	31	33	35	35	36	32	33	30	31	28	32	18	29	23	823	
REXBURG IRRIGATION	115	114	109	91	88	98	108	118	94	86	91	112	117	114	119	118	124	119	119	121	117	118	103	118	123	124	121	130	124	137	3301	
TOTAL DIVERSIONS	418	402	392	379	363	310	308	411	315	361	327	343	373	368	371	377	393	329	334	319	377	370	346	363	428	416	403	427	417	475	14635	

Similar low water conditions pertained on Teton River. The north fork of this stream was dry below diversions from and after June 3, while the south fork was likewise dry except for return flow after about June 10. Disputes concerning the division of water at the forks of this stream were largely averted by the employment of a watchman for the work of maintaining the relative flow in the two branches upon an equitable basis. A new and improved type of dam is understood to have been constructed at this point after the close of the 1926 irrigation season.

Regulation demands during September were somewhat less exacting than during the early part of the summer and for this reason it proved practicable to supervise the construction of a new concrete recording gage shelter at the station on Henrys Fork near Rexburg in addition to the more routine work.

While the deficiency in available water supply undoubtedly reduced the total crop production of this area to a considerable extent and the losses incurred by farmers under some of the canal systems were really serious, the net returns were generally much better than could reasonably have been expected during the early part of the season.

Actual deliveries to the canals diverting from Henrys Fork, Fall and Teton Rivers are shown on Plates XXII, XXIII, XXIV, XXV and XXVI. These are based upon daily observations from and after May 20 but discharges prior to that time have necessarily been partially estimated or interpolated. In the matter of recomputation of data as well as in other respects, the records here presented correspond and are consistent with those contained on Plates III, IV, V, VI and VII.

Plates XXVII and XXVIII summarize data in regard to the flow of the three principal streams, diversions therefrom, losses and gains throughout different sections, in so far as it is practicable to show all these facts in such tables.

The time interval basis used therein for the presentation of river records is as follows:

DAILY SUMMARY OF DATA AT AND BETWEEN GAGING STATIONS ON HENRYS FORK

126 DISTRIBUTION WATER DISTRICT NO 36

HENRYS LAKE RESERVOIR				HENRYS FORK WARM RIVER STA.				HENRYS FORK ASHTON STATION				HENRYS FORK SQUIRREL				HENRYS FORK DIVERSIONS				HENRYS FORK CHESTER		HENRYS FORK GAIN																											
DATE	GAGE	CAPAC AFT	DRAFT AFT	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.												
				0.77	20			MAY 19	4.84	1230			MAY 20	1.09	1210			MAY 19	3.28	1640	54	1694	MAY 20	7.04	754	940																							
				0.78	21			20	4.84	1230			21	1.10	1210			20	3.48	1680	57	1737	21	7.18	778	952																							
				0.79	22			21	4.85	1240			22	1.11	1210			21	3.75	1720	62	1802	22	7.39	799	965																							
				0.81	23			22	4.80	1200			23	1.04	1190			22	3.67	1730	66	1796	23	7.69	829	987																							
				0.80	22			23	4.75	1190			24	0.99	1150			23	3.60	1740	71	1791	24	7.96	859	1000																							
				0.80	22			24	4.77	1180			25	1.04	1160			24	3.90	1750	73	1783	25	8.26	889	1053																							
				0.81	23			25	4.75	1170			26	0.96	1150			25	3.95	1750	74	1775	26	8.56	919	1106																							
				0.88	26			26	4.73	1150			27	1.01	1160			26	3.40	1740	75	1770	27	8.70	930	1150																							
				1.30	64			27	4.74	1160			28	0.98	1170			27	3.20	1600	70	1770	28	8.66	904	1140																							
				1.73	119			28	4.73	1150			29	1.02	1160			28	3.40	1780	76	1741	29	8.82	959	1159																							
				1.72	118			29	4.69	1130			30	0.98	1170			29	3.39	1700	76	1861	30	8.01	801	1060																							
				1.72	118			30	4.67	1110			31	0.95	1150			30	3.40	1780	80	1800	31	8.12	822	1070																							
				1.71	116			31	4.65	1100			JUN 1	0.93	1180			31	3.40	1840	81	1861	JUN 1	7.88	788	1023																							
				1.71	116			JUN 1	4.64	1090			2	0.92	1460			JUN 1	3.25	1600	83	1643	2	7.89	789	1023																							
				1.63	109			2	4.64	1090			3	0.92	1460			2	3.02	1330	85	1515	3	7.84	784	1023																							
				1.60	103			3	4.62	1080			4	0.90	1430			3	2.9	1210	87	1497	4	7.85	785	1023																							
				1.51	92			4	4.58	1050			5	0.88	1390			4	2.83	1130	86	1336	5	7.84	784	1023																							
				1.45	85			5	4.56	1040			6	0.87	1380			5	2.85	1150	82	1371	6	7.84	784	1023																							
				1.33	72			6	4.54	1020			7	0.84	1330			6	3.00	1310	80	1340	7	7.86	786	1023																							
				1.32	71			7	4.52	1010			8	0.85	1340			7	3.00	1310	86	1346	8	7.86	786	1023																							
				1.30	69			8	4.49	990			9	0.84	1330			8	2.95	1260	84	1304	9	7.84	784	1023																							
				1.29	63			9	4.50	996			10	0.80	1340			9	2.85	1150	82	1392	10	7.79	779	1023																							
				1.25	62			10	4.48	983			11	0.82	1300			10	2.77	1070	86	1316	11	7.86	786	1023																							
				1.22	61			11	4.46	970			12	0.80	1260			11	2.62	832	83	1067	12	7.82	782	1023																							
				1.15	54			12	4.44	957			13	0.80	1260			12	2.50	814	86	1050	13	7.73	773	1023																							
				1.14	53			13	4.44	957			14	0.77	1220			13	2.40	727	84	951	14	7.82	782	1023																							
		60786		1.14	53			14	4.65	1100	148	952	15	0.96	1530	147	1323	14	2.30	644	217	861	15	7.71	771	1023																							
		60488	298	1.10	204	150	64	15	4.67	1110	208	902	16	0.87	1380	207	1173	15	2.20	565	210	775	16	7.71	771	1023																							
		60070	418	1.10	255	211	44	16	4.60	1060	89	971	17	0.90	1430	88	1342	16	2.16	535	218	760	17	7.79	779	1023																							
		59892	78	1.14	133	90	43	17	4.52	1010	60	950	18	0.86	1340	60	1230	17	2.15	528	220	748	18	7.73	773	1023																							
		59772	120	1.13	105	61	45	18	4.48	983	30	953	19	0.85	1330	29	1301	18	2.10	490	224	714	19	7.86	786	1023																							
		59712	60	1.29	78	30	48	19	4.47	976	30	946	20	0.84	1310	29	1281	19	2.40	727	17	744	20	7.80	780	1023																							
		59652	60	1.27	66	30	36	20	4.45	964	0	964	21	0.82	1280	0	1280	20	2.50	814	0	814	21	7.81	781	1023																							
		59652	0	1.21	60	0	60	21	4.42	957	0	957	22	0.81	1260	0	1260	21	2.45	744	0	744	22	7.81	781	1023																							
		59652	0	1.20	59	0	59	22	4.43	950	0	950	23	0.77	1200	0	1200	22	2.40	727	43	770	23	7.82	782	1023																							
		59652	0	1.20	59	0	59	23	4.43	950	0	950	24	0.80	1230	0	1230	23	2.30	567	129	636	24	7.78	778	1023																							
		59652	0	1.21	60	0	60	24	4.43	944	0	944	25	0.81	1250	0																																	

VS ON HENRY'S FORK AND TRIBUTARIES

PLATE NO. XXVII

CHESTER				HENRY'S FORK												TETON RIVER							
DATE	GAGE	DISCH	GAIN ABOVE CHESTER	ASHTON + CHESTER	DIVERS ABOVE ST ANTH		THEO BAL AT STANTH	STANTHONY STA				GAIN ASH TO STANTH	DIVERS BELOW ST ANTH		THEO BAL BELOW DIVERS	EST BAL BELOW DIVERS	STANTH. STA.			THEO BAL MIN IN STANTH + TETON RIVER	HEN FK NR READG	GAIN BELOW ST ANTH	
					STOR	NOR		GAGE	DISCH	STOR	NOR		STOR	NOR			STOR	NOR	GAGE				DISCH
MAY 20	3.89	1850	910	3560			1310	2250	478	2090	2090	-160	1041	1049			191	1730	1144	136	1185	1270	85
21	3.84	1880	771	3660			1305	2354	472	2090	2490	135	1019	1071			254	1710	1294	416	1387	1390	3
22	3.85	1890	317	3670			1252	2358	428	2400	2410	52	1007	1403			248	1670	1103	562	1265	2250	23
23	4.02	2070	683	3730			1206	2524	436	2480	2280	-218	1008	1272			230	1540	1099	441	1713	2160	447
24	4.09	2100	323	3730			1140	2360	442	2400	2560	36	993	1567			250	1680	1151	529	2096	2490	394
25	3.81	1840	132	3560			1105	1885	424	2340	2710	350	902	1808			253	1780	1116	614	2472	3840	368
26	3.07	480	-328	2990			1100	1940	406	2370	2340	-30	872	1469			232	1490	1063	437	1906	2600	624
27	3.25	1420	293	3040			1172	1733	397	2300	1570	-80	852	1118			183	1230	927	373	1591	3120	729
28	3.38	1540	236	2910			1187	1803	392	2300	1460	-67	858	912			168	1130	992	138	1050	1810	760
29	3.39	1650	291	2990			1255	1735	376	2300	1700	-105	841	769			164	1110	980	130	839	1560	671
30	3.45	1820	360	2990			1216	1544	388	2300	1600	-135	857	643			165	1100	1052	48	691	1440	749
JUN 1	3.01	953	-20	2433			1192	1241	375	2330	1630	-86	896	734			163	1100	1039	61	795	1450	685
2	2.87	870	45	2280			1222	1048	365	2270	1480	-239	893	587			156	1060	1003	57	644	1400	758
3	2.68	652	23	2114			1133	931	357	2160	1270	-712	850	450			144	994	952	42	462	1220	758
4	2.43	470	-42	1900			1109	791	349	2050	1160	-179	861	299			141	976	957	19	378	1070	752
5	2.30	506	118	1896			1101	795	341	2050	1050	-259	851	199			132	965	939	26	325	945	720
6	3.16	1090	693	2470			1071	1399	334	2036	947	-152	837	110			137	963	937	2	118	821	703
7	2.84	775	-279	2105			1222	883	362	2240	936	-483	817	119			143	999	1019	-20	99	730	681
8	2.69	645	-15	1935			1157	828	360	2210	1240	-387	813	427			148	1030	1041	-1	416	934	518
9	2.70	645	5	1925			1061	914	348	2060	1210	-382	780	430			149	1060	1056	6	474	1020	596
10	2.36	397	-116	1737			1006	731	353	1910	1050	-136	783	267			154	1070	1096	-26	241	956	715
11	1.98	210	-290	1510			854	656	354	1730	1130	-474	705	425			153	1100	126	-26	351	1050	669
12	1.86	187	-78	1417			750	667	340	1558	958	-291	689	269			135	999	1023	-24	401	1100	699
13	1.72	133	-144	1393			729	664	329	1524	884	-170	784	110			124	920	942	-22	247	951	704
14	1.59	100	-119	1320			720	530	323	1471	771	-221	716	56			117	882	930	-43	62	847	755
15	1.49	77	-63	1607			861	746	337	1224	147	-177	740	184	0		111	854	863	-3	47	780	733
16	1.50	77	13	1457			817	640	326	1292	207	-585	745	47	0		104	822	809	13	197	785	592
17	1.53	81	50	1511			807	704	322	1260	88	-672	747	13	0		85	822	809	13	77	730	658
18	1.52	79	64	1419			717	642	323	1232	60	-722	747	111	0		89	822	809	13	14	688	654
19	2.11	247	19	1577			752	525	313	1231	29	-762	769	-32	0		88	787	778	19	130	668	538
20	2.15	263	59	1573			843	730	335	1212	29	-883	748	164	0		89	787	778	15	23	654	631
21	2.13	254	-39	1534			760	774	340	1270	970	-196	721	249			89	752	731	21	185	687	502
22	1.95	191	3	1451			621	760	343	1296	996	-236	655	341			635	722	683	33	299	805	512
23	1.87	168	2	1368			501	717	333	1290	890	-173	635	256			682	705	692	13	283	780	522
24	1.82	153	37	1385			693	642	327	1224	124	-132	693	131			634	716	668	48	179	726	547
25	1.80	149	22	1399			752	647	324	1292	792	-145	689	103			634	716	666	50	153	672	525
26	2.12	250	126	1500	171	569	760	318	731	-23	754	-29	15	567	129		639	690	656	34	133	636	453
27	2.00	207	69	1487	75	507	855	344	1020	72	948	165	20	535	415		676	676	608	67	482	805	323
28	1.90	174	-14	1514	160	461	893	348	1070	106	964	177	20	649	401		674	664	619	45	446	842	396
29	1.92	180	74	1510	76	570	914	345	1040	249	791	126	35	587	368		672	654	608	46	414	821	407
30	1.92	180	-41	1640	82	374	984	351	1110	448	662	126	195	513	402		668	634	550	84	486	852	366
JUN 1	1.95	183	73	1718	54	751	913	346	1050	408	642	187	196	475	379		674	664	598	66	445	912	467
2	1.84	167	12	1827	53	630	1164	360	1260	875	565	76	309	461	470		671	640	598	82	352	945	393
3	1.82	151	38	1832	92	630	1160	360	1240	329	511	80	303	552	479		671	640	598	82	352	945	393
4	1.84	157	69	1887	92	607	1138	361	1260	329	531	72	233	406	571		662	634	571	63	634	979	345
5	1.85	166	78	1850	94	617	1139	360	1240	327	513	101	259	441	549		666	624	565	69	599	979	340
6	1.82	152	72	1882	172	564	1126	362	1270	249	1021	124	358	536	576		666	624	561	63	639	1000	361
7	1.76	133	69	1863	174	536	1083	354	1160	221	939	77	251	441	468		666	624	560	64	627	951	329
8	1.82	152	111	1942	173	569	1200	361	1260	203	1057	60	221	539	600		673	666	612	67	652	1060	408
9	1.76	136	81	1996	124	641	1231	365	1320	86	1234	39	237	417	666		673	666	612	67	652	1060	408
10	1.61	95	54	1845	170	644	1031	356	1180	6	1174	149	118	557	505		673	666	612	67	652	1060	408
11	1.80	144	15	1874	170	670	1034	343	1010	-94	1104	-24	118	570	322		670	644	556	89	411	890	479
12	1.84	150	110	1615	85	693	837	330	858	-11	844	-78	118	581	176		667	619	553	76	252	730	528
13	1.90	171	61	1551	104	749	298	322	771	24	687	73	118	600	53		664	614	542	72	125	706	521
14	1.87	163	50	1623	184	573	741	323	782	259	523	21	284	550	-2		662	604	521	83	81	673	492
15	1.83	152	0	1592	353	-13	746	337	936	140	796	90	212	472	312		681	589	516	73	125	746	560
16	1.80	144	7	1834	346	425	1063	346	1050	178	878	-13	234	576	300		681	589	516	73	125	746	560
17	1.77	136	28	1866	339	470	1057	350	1100	262	838	48	236	524	340		680	546	522	24	362	847	283
18	1.85	157	28	1847	337	430	1030	346	1050	206	844	70	236	516	299		680	546	522	24	363	847	283
19	1.85	157	48	1977	370	491	1056	354	1160	169	1001	4	275	432	453		680	546	522	24	363	847	283
20	1.84	153	3	1955	329	489	1137	355	1170	271	890	33	119	436	616		681	551	501	60	666	833	268
21	1.76	130	-13	1880	341	451	1058	352	1130	246	824	72	931	330	469		681	551	501	60	666	833	268
22	1.80	141	29	1911	326	479	1104	351	1110	284	826	4	223	486	396		680	546	522	24	362	847	283

HENRYS LAKE RESERVOIR				HENRYS FORK LAKE STATION												ASHTON STATION				SQUIRREL		FALL RIVER DIVERSIONS				
GAGE	CAPAC A FT	DRAFT A FT		GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	GAGE	DISCH	STOR	NOR.	DATE	TOTAL	STOR.	NOR.
26	2667	30396	1133	425	602	566	36		508	1240	558	882		174	1250	585	1195		210	430	3	498		450	64	386
27	2649	29426	964	391	509	486	23	27	498	1370	479	891	28	210	528	3	536	28	210	528	3	536	29	492	101	385
28	2630	28409	1017	398	526	513	13	29	494	1340	505	835	29	202	433	44	477	30	202	433	44	477	30	476	123	353
29	2611	27392	1017	402	536	513	23	30	496	1350	505	845	30	209	460	503	1137	31	200	419	70	489	31	446	86	360
30	2592	26491	901	381	485	494	31	31	492	1370	447	873	31	108	1660	445	1218	31	200	419	70	489	31	446	86	360
31	2577	25602	589	379	486	443	32	Nov 1	489	1300	441	859	Nov 1	107	1620	439	1181	Nov 1	200	419	70	489	2	454	60	394
Nov 1	2559	24662	940	378	477	474	3	2	488	1290	467	823	2	103	1530	465	1085	2	200	419	71	490	3	458	60	395
2	2542	23774	588	377	475	458	27	3	486	1280	441	839	3	104	1570	439	1131	3	199	412	70	482	4	454	60	394
3	2525	22886	888	377	475	448	27	4	486	1280	441	839	4	104	1600	439	1161	4	199	412	81	493	5	455	60	395
4	2508	21998	888	378	477	448	29	5	485	1270	441	829	5	102	1530	439	1091	5	199	412	81	493	6	451	60	391
5	2491	21130	863	365	447	438	9	6	484	1260	431	829	6	105	1580	429	1131	6	202	433	81	514	7	388		388
6	2477	20429	701	332	373	353	20	7	476	1200	344	852	7	095	1390	346	1044	7	208	476	11	487	8	363		363
7	2464	19779	650	321	351	328	23	8	471	1170	323	847	8	097	1420	321	1119	8	214	476	4	524	9	369		369
8	2451	19129	650	318	345	328	17	9	469	1150	323	827	9	099	1480	321	1159	9	216	528	0	528	10	364		364
9	2439	18528	601	306	321	303	18	10	466	1130	298	832	10	091	1360	297	1063	10	210	490	0	490	11	406	31	375
10	2428	17978	550	292	296	277	19	11	470	1160	273	887	11	092	1380	271	1109	11	220	565	0	565	12	409	56	353
11	2419	17528	450	264	250	227	23	12	464	1120	254	896	12	096	1460	222	1233	12	214	520	0	520	13	371	55	316
12	2411	17127	401	243	215	202	13	13	458	1060	199	861	13	087	1310	198	1112	13	213	512	0	512	14	373	67	316
13	2405	16827	300	210	165	151	14	14	445	1020	149	871	14	081	1230	148	1082	14	210	490	0	490	15	362	56	306
14	2400	16577	250	202	154	126	28	15	447	1000	124	876	15	082	1260	124	1126	15	208	476	0	476	16	371	57	260
15	2394	16396	281	202	152	142	10	16	447	1000	140	860	16	082	1310	139	1121	16	210	490	0	490	17	350	0	350
16	2388	16214	282	202	152	142	10	17	449	1020	140	850	17	084	1310	139	1171	17	208	476	0	476	18	347	43	304
17	2383	15780	234	187	130	118	12	18	430	1020	116	904	18	085	1330	116	1214	18	208	476	0	476	19	340	47	298
18	2380	15639	141	155	91	71	20	19	438	1010	70	940	19	085	1340	70	1270	19	232	661	10	671	20	334	16	318
19	2378	15586	93	158	94	47	47	20	445	990	46	944	20	083	1310	46	1261	20	210	490	22	512	21	329		329
20	2375	15405	141	158	93	71	22	21	442	970	70	900	21	081	1300	70	1230	21	210	490	26	516	22	325		325
21	2372	15264	141	158	93	71	22	22	440	957	70	887	22	080	1280	70	1210	22	208	476	26	502	23	334		334
22	2369	15124	140	158	93	71	22	23	440	957	70	887	23	076	1230	70	1160	23	208	476	35	571	24	340		340
23	2366	14983	141	158	92	71	21	24	438	944	70	874	24	075	1220	70	1130	24	204	447	35	482	25	335		335
24	2362	14796	157	172	109	94	15	25	441	944	93	871	25	075	1220	92	1185	25	202	433	35	468	26	330		330
25	2357	14561	235	195	138	118	20	26	442	970	116	854	26	079	1280	116	1164	26	202	433	34	467	27	331		331
26	2351	14380	281	200	144	142	2	27	443	976	140	836	27	076	1230	139	1091	27	204	447	37	484	28	325		325
27	2346	14044	236	200	144	119	25	28	442	970	117	853	28	083	1340	117	1223	28	202	433	37	470	29	316		316
28	2340	13764	280	200	144	141	3	29	443	976	139	837	29	083	1340	138	1202	29	206	462	36	498	30	312		312
29	2335	13530	234	200	143	118	25	30	444	983	116	867	30	084	1360	116	1244	30	206	462	28	490	31	280		280
30	2330	13295	235	200	143	119	24	31	444	983	117	866	SEPT 1	081	1310	117	1195	31	208	476	0	476	SEPT 1	258		258
31	2324	13014	281	217	166	142	24	2	453	1040	210	830	2	081	1310	139	1171	SEPT 1	210	490	0	490	2	259		259
SEPT 1	2315	12592	422	250	215	213	2	3	453	1040	186	854	3	088	1340	209	1131	3	210	490	0	490	3	57		57
3	2307	12217	375	250	215	189	26	4	453	1040	207	833	4	088	1430	185	1245	4	208	476	0	476	4	22		22
3	2298	11801	416	251	215	210	5	5	450	1020	174	846	5	086	1390	206	1184	5	208	476	0	476	5	25		25
4	2290	11449	352	240	198	177	21	6	449	1020	153	867	6	082	1330	173	1157	6	208	476	0	476	6	164		164
5	2283	11141	308	219	166	155	11	7	452	1040	153	887	7	078	1260	152	1108	7	206	462	1	466	7	270		270
6	2276	10883	308	227	177	155	22	8	451	1030	153	877	8	078	1260	152	1108	8	208	476	11	487	8	120		120
7	2269	10525	308	233	186	155	31	8	440	957	131	826	9	078	1260	152	1108	9	206	462	17	477	9	280		280
8	2263	10261	264	208	150	133	17	9	430	893	12	871	10	074	1200	130	1200	10	204	447	18	465	10	285		285
9	2262	10217	44	095	28	22	6	10	427	874	0	874	11	074	1200	125	1178	11	202	433	18	451	11	285		285
10	2262	10217	0	095	28	0	28	11	427	874	0	874	12	070	1140	0	1140	12	202	433	18	451	11	66		66
11				095	28		28	12	428	880		880	13	070	1140		1140	13	200	419	19	438	12	291		291
12				096	28		28	13	427	874		874	14	070	1140		1140	14	200	419	21	440	13	284		284
13				096	28		28	14	426	868		868	15	070	1140		1140	15	200	419	21	440	14	288		288
14				096	28		28	15	427	874		874	16	071	1160		1160	16	200	419	21	440	15	313		313
15				098	29		29	16	427	874		874	17	072	1170		1160	17	200	419	21	440	16	321		321
16				104	35		35	17	427	874		874	18	074	1200		1200	18	200	419	21	440	17	333		333
17				102	32		32	18	428	880		880	19	073	1190		1200	19	200	419	21	440	18	340		340
18				093	25		25	19	425	861		861	20	071	1160		1190	20	202	433	22	455	19	343		343
19				102	32		32	20	426	868		868	21	072	1170		1160	21	202	433	27	460	20	323		323
20				101	31		31	21	426																	

METER READINGS ON HENRY'S FORK AND TRIBUTARIES

PLATE NO. XXVIII

HENRY'S FORK

NO AL ST.	CHESTER			GAIN ABOVE CHESTER	ASHTON +	DIVERS ABOVE ST. ANTH.		THEO BAL AT ST. ANTH.	ST. ANTHONY STA.		GAIN ASH TO ST. ANTH.	DIVERS BELOW ST. ANTH.		THEO BAL BELOW DIVERS	EST. BAL BELOW DIVERS	
	DATE	GAGE	DISCH			STOR	NOR		STOR	NOR		STOR	NOR			
																STOR
28	28	142	55	7	1805	260	371	1174	360	1240	243	997	66	297	332	611
29	29	139	50	6	1580	267	371	952	349	1090	202	888	138	243	327	515
30	30	132	40	39	1700	237	375	1068	356	1180	128	1052	112	246	334	600
31	31	132	40	-3	1680	180	392	1108	357	1200	199	1001	92	246	339	615
Aug 1	132	40	-3	1700	176	366	1158	356	1180	229	951	22	246	230	704	
2	136	46	11	1666	178	378	1110	358	1210	201	1009	100	246	240	724	
3	156	95	60	1645	178	348	1119	365	1120	201	969	51	240	278	652	
4	158	100	72	1670	183	378	1109	357	1200	196	1004	91	244	318	638	
5	155	93	55	1693	180	387	1126	359	1230	189	1041	104	140	466	624	
6	164	115	73	1645	167	375	1103	354	1160	119	1041	57	92	545	523	
7	171	133	7	1713	177	382	1184	357	1200	144	1036	46	20	521	589	
8	190	185	61	1575	177	382	1016	347	1060	144	916	44	77	534	449	
9	193	194	39	1634	172	379	1083	352	1130	125	1005	47	84	416	630	
10	184	168	4	1648	124	339	1185	358	1200	147	1053	15	36	439	679	
11	194	198	114	1558	123	325	1110	353	1130	99	1031	20	89	410	631	
12	194	198	42	1578	126	343	1109	356	1170	72	1098	61	51	488	631	
13	187	177	28	1637	123	335	1179	356	1170	25	1145	9	47	478	645	
14	183	166	27	1476	123	323	1030	347	1050	1	1049	20	51	478	571	
15	189	182	54	1412	80	345	987	342	923	59	924	-4	42	473	468	
16	184	168	3	1418	80	345	993	346	1040	59	941	47	38	506	496	
17	184	168	28	1428	60	357	1011	346	1040	56	984	29	55	509	476	
18	200	217	88	1627	60	362	1105	343	1060	10	1030	-45	58	512	490	
19	201	220	84	1550	80	348	1122	355	1160	-34	1194	38	54	512	594	
20	197	207	-130	1347	80	357	1110	357	1180	-10	1130	70	54	515	611	
21	196	204	21	1514	80	344	1090	350	1090	-10	1100	0	64	470	566	
22	192	191	0	1491	80	342	1069	340	958	-10	968	-111	63	478	415	
23	192	191	23	1471	80	348	1043	340	958	-10	968	-85	20	481	457	
24	190	182	11	1412	80	372	960	337	924	12	912	-36	20	467	447	
25	191	185	38	1405	80	376	949	336	912	36	876	-37	61	460	391	
26	194	194	56	1414	0	414	1000	337	924	139	785	-76	65	470	389	
27	196	198	62	1478		398	1080	342	983	117	866	-97	68	456	459	
28	199	210	51	1440	42	343	1055	341	970	96	874	-85	30	411	429	
29	200	214	60	1554	45	349	1160	350	1090	71	1119	-70	130	423	537	
30	196	201	15	1541	48	354	1139	352	1110	69	1041	-29	130	409	571	
31	211	254	44	1614	22	314	1278	353	1160	117	1041	-118	130	409	621	
SEPT 1	210	260	32	1560	32	286	1242	360	1210	177	1035	-32	130	401	679	
2	220	295	64	1606	72	323	1268	358	1170	113	1087	-33	145	390	685	
3	247	436	23	1796	70	333	1393	357	1160	136	1024	-233	143	373	637	
4	249	470	6	1900	52	278	1670	373	1400	181	1279	-170	145	389	666	
5	242	422	29	1812	79	286	1447	373	1400	73	1327	-47	130	403	567	
6	210	260	-62	1530	30	288	1212	368	1330	72	1248	103	30	394	846	
7	208	224	28	1484	76	274	1136	363	1170	77	1093	55	30	389	701	
8	203	224	143	1484	48	294	1192	360	1180	82	1098	38	30	374	726	
9	198	207	8	1467	48	299	1120	361	1200	-26	1226	30	30	374	726	
10	199	210	33	1540		391	1149	360	1180		1180	31		485	695	
11	195	198	-87	1396		392	1006	354	1100		1100	27		431	669	
12	196	201	41	1341		379	963	341	936		936	-32		447	489	
13	199	210	56	1350		409	941	338	901		901	-40		434	467	
14	199	210	55	1350		350	970	342	936		936	-34		431	505	
15	187	174	47	1314		350	934	344	958		958	24		434	524	
16	180	155	36	1315		401	914	339	890		890	-24		384	506	
17	180	155	48	1325		402	923	338	890		890	-33		384	506	
18	180	155	55	1325		393	962	340	912		912	-50		375	537	
19	168	123	11	1313		396	913	338	890		890	-23		373	512	
20	196	201	64	1361		363	993	336	926		866	-143		353	502	
21	200	214	31	1354		352	1002	343	936		936	-66		360	576	
22	195	198	67	1358		368	1000	345	958		958	-42		343	615	
23	195	198	49	1353		358	980	343	936		936	-42		343	615	
24	194	194	52	1384		379	1000	344	927		927	-64		347	596	
25	194	194	65	1394		369	1020	343	996		996	-29		350	646	
26	195	198	78	1368		376	982	344	947		947	-43		343	579	
27	189	180	63	1370		344	926	349	996		996	70		347	649	
28	202	220	41	1240		374	966	347	970		970	-1		343	609	
29	217	281	115	1331		269	1062	356	1070		1070	3		306	764	
30								363	1180		1180			275	905	

TETON RIVER

NO AL ST.	ST. ANTH. STA.			THEO BAL BELOW DIVERS	EST. BAL BELOW DIVERS	THEO BAL HENRY FORK ST. ANTH. + TETON RIVER	HEN FR NR REXBO	GAIN BELOW ST ANTH
	GAGE	DISCH	DIVERS					
28	509	440	69	680	985	305		
29	541	456	85	600	928	328		
30	528	454	74	674	934	260		
Aug 1	509	433	74	689	928	210		
2	500	431	69	773	962	189		
3	496	411	85	809	1000	191		
4	496	423	73	725	941	256		
5	514	428	86	724	962	239		
6	537	459	78	702	951	249		
7	523	434	89	612	884	272		
8	509	441	68	637	923	266		
9	518	456	62	511	890	379		
10	523	496	32	662	1000	338		
11	528	493	35	714	1030	336		
12	546	517	39	670	1030	360		
13	528	487	41	672	1050	378		
14	518	487	31	676	1070	394		
15	505	479	26	547	985	438		
16	491	459	62	530	906	376		
17	478	430	48	544	901	357		
18	465	427	38	514	901	357		
19	460	429	31	521	928	407		
20	487	449	33	632	985	453		
21	491	465	36	647	1000	553		
22	478	425	53	609	931	342		
23	469	426	43	558	901	343		
24	465	426	39	496	879	333		
25	456	412	42	489	879	330		
26	443	406	42	453	831	363		
27	431	393	38	227	805	378		
28	431	376	54	543	836	323		
29	431	376	55	482	831	337		
30	443	405	38	575	857	382		
31	465	434	31	602	884	422		
SEPT 1	456	413	43	664	917	253		
2	439	413	26	705	1000	295		
3	431	402	29	664	1010	346		
4	431	392	39	676	973	308		
5	427	379	48	674	1140	236		
6	435	363	22	914	1190	231		
7	427	380	47	843	1140	247		
8	427	393	29	630	1030	300		
9	422	411	11	527	1030	298		
10	418	375	43	588	1030	282		
11	418	367	37	502	1060	308		
12	418	357	61	710	1020	290		
13	416	343	71	600	979	343		
14	410	373	37	504	979	373		
15	410	368	42	547	966	359		
16	410	376	39	563	974	357		
17	414	377	37	583	978	393		
18	412	392	30	541	934	393		
19	422	389	33	506	931	387		
20	427	399	33	525	940	390		
21	428	399	29					

Time from Henrys Lake in hours	Gaging Station	Period used for comparable daily means
0	Henrys Lake Outlet near Lake	Day ending at 2 p.m.
40	Henrys Fork at Warm River	Day ending at 6 a.m. 2nd day following
50	Henrys Fork near Ashton	Day ending at 4 p.m. 2nd day following
	Fall River near Squirrel	*Day ending at 10 a.m. 2nd day following
	Fall River near Chester	Day ending at 5 p.m. 2nd day following
54	Henrys Fork at St. Anthony	Day ending at 8 p.m. 2nd day following
	Teton River near St. Anthony	Day ending at 6 p.m. 2nd day following
66	Henrys Fork near Rexburg	Day ending at 8 a.m. 3rd day following

This schedule is so arranged as to make the data correspond to the river records on Plates VIII, IX and X. The dates indicated on the tables are for the nearest midnight to midnight or calendar days.

Actual continuous measurement of the water wasting past the last diversion dams on Henrys Fork and Teton River is not considered practicable and for that reason the "Est. Bal. Below Diversions" columns are blank except for days when either personal inspection was made or other reliable information was secured. Waste and return flow from adjacent irrigated lands enter the lower portions of both streams and comprise the total discharge measured at the Rexburg station at times when all available water is diverted at the upper points.

Fall River water delivered to the Enterprise Irrigation District in exchange for Jackson Lake Storage which was purchased and released for the use of Snake River normal flow users is shown

*Approximate means used. No recording gage records available.

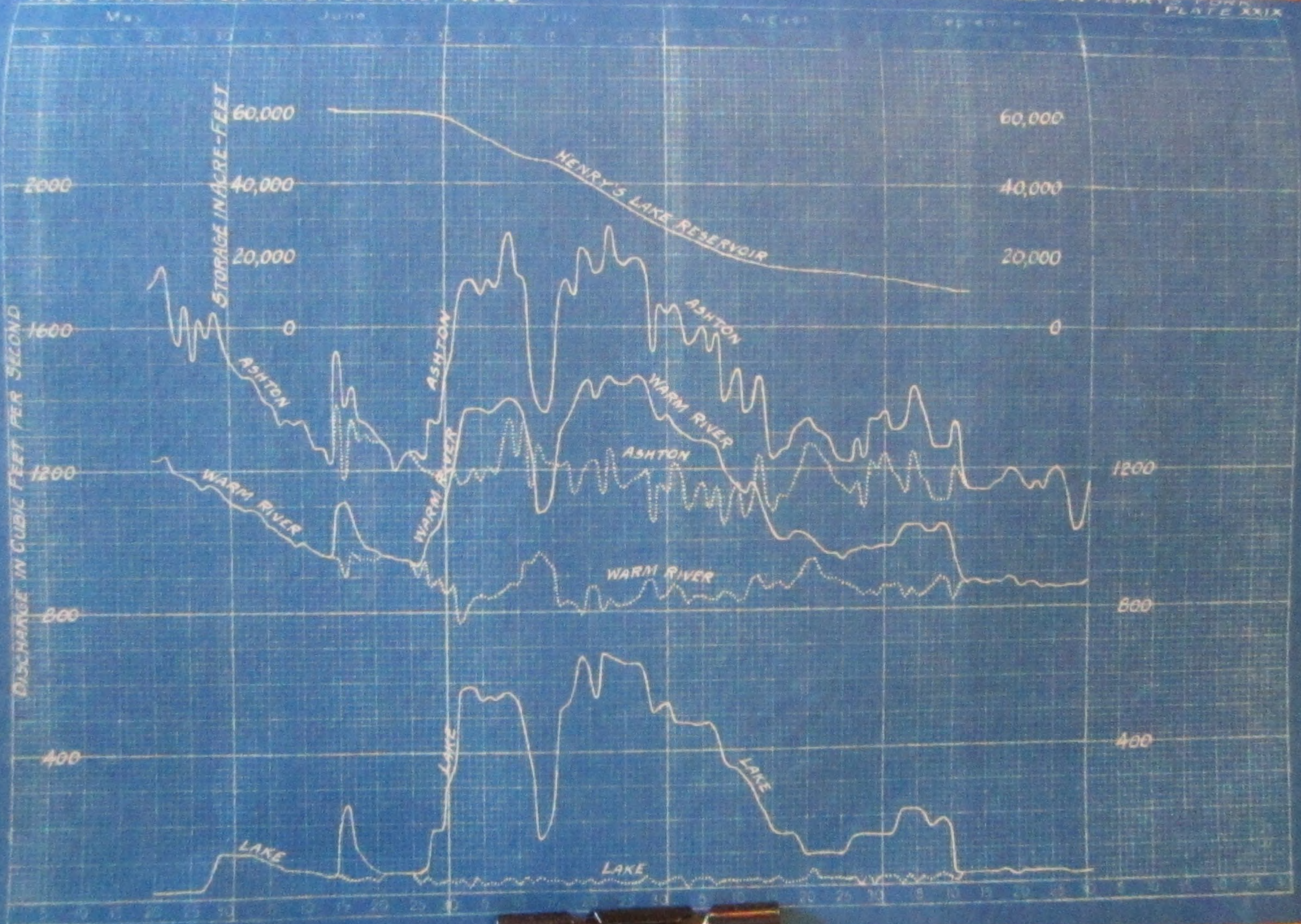
in these tabulations as storage but of course is not included in the later summary of deliveries from Henrys Lake Reservoir.

Plate XXIX contains a curve showing the way in which storage was drawn from Henrys Lake Reservoir together with actual total and computed normal flow hydrographs for Henrys Fork at the Lake, Warm River and Ashton gaging stations. These graphs are all plotted with time interval adjusted to coincide with the nearest calendar day at the Ashton station.

Presumably because of the water surface slope in the comparatively narrow outlet between Henrys Lake proper and the dam, gage readings at the latter point do not afford a really satisfactory index of reservoir capacity. As a result, almost continuous adjustments, especially at the lower reservoir stages, had to be made to avoid unreasonable inconsistencies in the normal flow past the Lake station. The installation of a suitable gage in the lake would entail the expenditure of a considerable sum of money while at the same time the cost of daily readings would be increased. Eventually, however, this will probably be required, especially in the event of disputes concerning the segregation of water passing the dam.

Special effort was made to have the Utah Power and Light Company maintain a constant head behind their Ashton Dam and thus avoid introducing unexpected fluctuations in river stage at points farther downstream. Comparison of the hydrographs for the three

TOTAL AND NORMAL FLOW AT THE LAKE, WARM RIVER AND ASHTON STATIONS ON HENRY'S FORK
1926 DISTRIBUTION WATER DISTRICT NO. 36
HENRY'S FORK
PLATE XXIX



stations still indicates some discrepancies which are probably attributable to this source but the records are much more consistent than those of 1924.

The Warm River normal flow graph indicates a tendency towards transmission lag which is possibly due to the area at the lower end of Henrys Lake Valley which is still flooded whenever large discharges are released from the reservoir.

HENRYS LAKE STORAGE DELIVERIES

Enlargement and straightening of the outlet channel through the bottoms below the dam together with the acquisition of additional right of way, during the past two years, made it possible to deliver storage during 1926 in larger heads than heretofore or practically as required to meet the demands.

The amount of stored water released from the reservoir each day was determined from the capacity tables by noting the quantity corresponding to the daily decrease in stage indicated by the lake gage readings. As previously noted, however, the latter had to be adjusted to take account of errors introduced by wind and by slope in the outlet channel above the dam to such an extent that in the final record the estimated normal flow past the dam may almost be considered the real governing factor. Except for the more extensive adjustments here required and the consequent increased dependence upon the normal flow estimate, this method is the same as that used at Jackson Lake Reservoir.

A transmission loss of 1.5 per cent was charged between Henrys Lake and Warm River and an additional 0.5 per cent

was deducted between the latter point and the Ashton station. These losses correspond with the recommendations submitted by Consulting Engineer R. I. Meeker on August 14, 1923 but are almost purely arbitrary in character since no data have as yet been secured to afford a basis for any scientific determination.

At the beginning of the release period the total storage available according to the reservoir capacity tables amounted to 60,786 acre-feet while at the end of the season 10,217 acre-feet remained as a carry-over for 1927.

Plate XXX contains the final summary account of all stored water released from Henrys Lake. Head-gate deliveries to the respective canals are shown for actual diversion dates.

Where a minus quantity is given on the "Unused Storage" line an excess storage delivery is indicated, or in other words, normal flow was actually delivered to the canals instead of storage. This line shows at a glance the irregularities of delivery, together with the compensating character of the individual day discrepancies. The algebraic total of unused storage for the entire period amounts to 1004 acre-feet, all of which is accounted for by the waste during the early season tests at Henrys Lake dam.

Storage delivered to the Marysville and Farmers Own Canals which divert from Fall River was handled upon the exchange or substitution basis previously described.

HENRY'S LAKE STORAGE DELIVERIES - 1926.

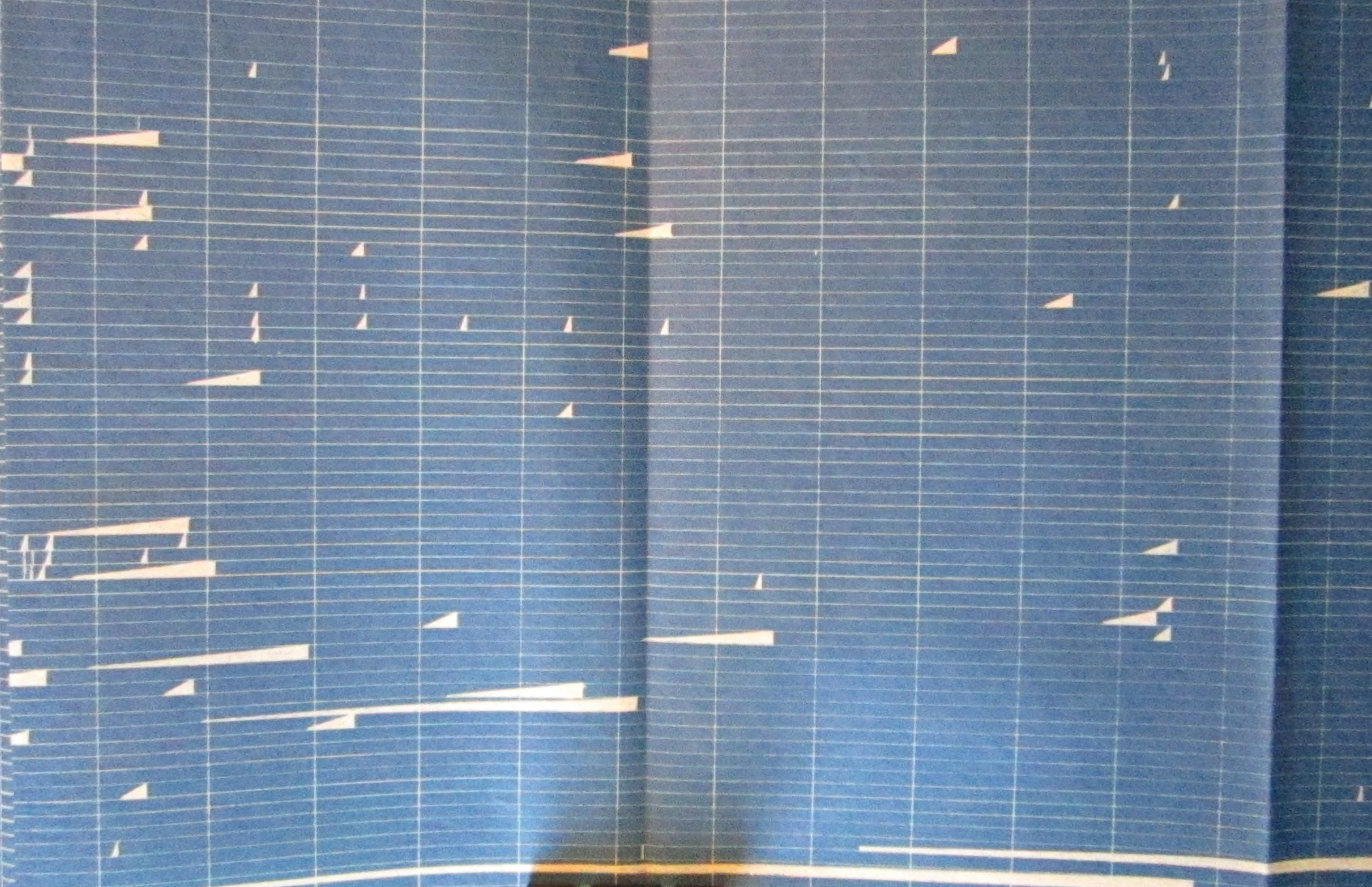
																														TOTAL	TOTAL																
																														SEC FT	ACRE FT																
19	20	21	22	23	24	25	26	27	28	29	30	JUN 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	44						
												98	99	99	99	99	98	99	99	99	99	99																									
																26	37	38	37	37	46	38	38	37	36	36	39	37	37	37	12																
												24	23	22	22	23	22	22	22	22	22	22	22	17	18	17	18	20	21	21	12	9	12	21	24	24	24	2	18	21	20						
												30	30	30	30	30	30	30	30	30	30	30	30	28	30	28	31	35	39	38	40	40	38	38	36	34	34	33	33	40	40						
																40	40	41	41	43	40	41	5	31	65	56	45	45	52	48	46	47	47	48	46	50	49	48									
																171	75	160	76	82																											

1926 DISTRIBUTION WATER DISTRICT NO. 36.

PARTY OR CANAL	TOTAL SF	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
RILEY	24.										
ANDERSON & ER WILLOW CR	800										
FARMERS FRIEND	342.83										
ENTERPRISE	188										
NELSON	4.75										
MATTSON - CRAIG	20.16										
ARNSBERGER	6.										
HEISE	5.6										
BUTLER ISLAND	54.16										
ROSS & RAND	3.34										
STEELE	7.42										
HARRISON	451.94										
CHENEY	6.										
BOOMER & IDAHO	1000.										
RUDY	191.26										
KITE & NORD	8.8										
BURGESS	800.61										
CLARK & EDWARDS	70.										
LOWDER & JENNINGS	52.										
EAST LABELLE	140.										
CONSOLIDATED FEEDER	184.										
LENROOT	220.										
REID	150.										
TEXAS FEEDER	280.										
NELSON - COREY	16.8										
HILL - PETTINGER	13.										
LONG ISLAND	452.41										
ISLAND	289.40										
RIGBY	160.										
DILTS	28.										
WEST LABELLE	109.90										
PARKS & LEWISVILLE	351.12										
NORTH RIGBY	50.										
WHITE	6.40										
BRAMWELL	1320										
ELLIS	4.8										
INDEPENDENT	29.2										
BUTTE & MARKET LAKE	368.7										
OSGOOD	128.55										
KENNEDY	22.49										
PORTER GR WESTERN & MARTIN	571.78										
BEAR ISLAND	3.5										
TAYLOR & GOSHEN	46.										
CITY OF IDAHO FALLS	188.										
WOODVILLE	125.5										
SNAKE RIVER VALLEY	710.										
RESERVATION	600.										
BLACKFOOT	366.8										
NEW LAVA SIDE	152.										
PEOPLES	424.2										
ABERDEEN SPRINGFIELD	1250										
CORBETT SLOUGH	239.43										
NIELSEN HANSEN	15.										
RIVERSIDE	100.										
DANSKIN	130.										
TREGO	69.41										
WEAKYRICK	41.2										
WATSON SLOUGH	97.4										
FARSONS	22.										
SMITH - MAXWELL	17.8										
USRS MINIDOKA CANALS	2726.										
SCHODDE	2										
TWIN FALLS SOUTH SIDE	3000										
TWIN FALLS NORTH SIDE	3000										
MILNER LOW LIFT CANAL											
ANNUAL TOTALS IN SECT	21002.86	19921	4000	6000	16000	433.0	680.40	452.20	264.80	17927.4	3029.00

1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901

REVISED CHAR



5239.60 1052.40 1234.3 175.00 99.5 SCALE 403.5 0.0 68.0 76.0 373.71

CHART AND TABULAR SUMMARY OF PRINCIPAL SOUTH FORK AND SNAKE RIVER WATER RIGHTS.

1901	1902	1903	1904	1905	1906	1907	1908	STORAGE	DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER	DATE	DECREE
								1900 ABJ	1908 AUG 6	1000	USRS FOSTER	2726	1726	1892 JUN 1	5
								14000 A	JUN 16	350	TFNSL&W Co Foster	3000	2650		
								2000 J			DO	3000	400		14
								15900 ABJ	1905 JUN 7	2250		191.26	155.26		
									1905 JUN 1	36	RUDY		140		26
									1904 OCT 22	48	CITY OF IDAHO FALLS	188	600	MAY 1	130
									1903 SEPT 1	110	SNAKE RIVER VALLEY	710	120	1891 DEC 4	600
									1903 JUN 1	100	LENROOT	220	120		
									" " 1	10	HILL-PETTINGER	13	3		
								16200 ABJ			Carlson Fegerstrom			" JUN 1	4.8
								25200 A	" MAR 26	1726	USRS FOSTER	2726	0		
								2000 J	1902 JUN 1	3	HILL-PETTINGER	13	0	" " 1	6
											Rott				
								12120 ABJ	" " 1	24	RILEY	24	0	" " 1	15
								1040 J	" " 1	4	TREGO	6941	6541	" " 1	195
											Reese-Kittig				
								4000 J	" MAY 1	5.6	HEISE	5.6	0	" " 1	14
								7200 ABJ	" APR 14	140	CONSOL FEEDER	184	44	" " 1	14
								2800 A							
									1900 OCT 11	400	TFNSL&W Co FOSTER	3000	0		
									" " "	3000	TFSS CANAL Co FOSTER	3000	0	JAN 24	100
									" JUN 16	46	TAYLOR & GOSHEN	46	0		
									" " 16	100	OSGOOD	128.55	28.55	1890 NOV 24	72
								980 A			Taylor & Goshen			" OCT 16	17
									" " 16	40	WOODVILLE	125.5	86.5	" " 16	349.4
									" " 1	14	RUDY	191.26	141.26	" " 16	10.6
									" APR 30	475	NELSON	475	0		
											BORCG Mattson			" JUL 12	240
								2800 A	" " 30	1296	MATTSON-CRAIG	2016	7.2	" JUN 10	240
								14000 A			BORCG Mattson			" " 1	8.8
								355 J	" " 20	140	CITY OF IDAHO FALLS	188	0	" " 1	0.8
								33864 ABJ	1899 JUN 1	76	LENROOT	220	44	" " 1	0.8
								280 A	1898 APR 15	68	ENTERPRISE	188	120		
									1896 JUL 9	400	SNAKE RIVER VALLEY	710	200	" " 1	65.41
								8400 A	" JUN 1	3.5	BEAR ISLAND (Weir)	3.5	0	" " 1	4.59
								43000 ABJ	1895 JUN 1	12	TEXAS FEEDER	280	268		
								14000 A	" " 1	160	BURGESS	80061	64061	" " 1	26
								29000 ABJ	" APR 1	2	SCHODDE	2	0		
								79149 ABJ			Supplemental			" FEB 21	17.8
								5600 A	" MAR 22	120	ENTERPRISE	188	0		
									" FEB 6	1250	ABERDEEN-SPRING	1250	0	1889 JUL 10	366.8
											American Falls Co			" " 10	6.00
								1400 A	" JAN 9	160	HARRISON	45194	29194		
									1894 AUG 18	400	PEOPLES	4242	242	" " 10	20.72
									" JUN 1	28	DILTS	28	0	" " 10	6.48
								268000 J	" " 1	14	TEXAS FEEDER	280	254	" " 10	6.48
								238290 ABJ			Diltz & LaBelle Co				
								585956 ABJ	1893 JUN 1	14	TEXAS FEEDER	280	240	" JUN 2	6
								28000 A	" APR 30	35.5	WOODVILLE	125.5	0	" JUN 1	0.66
								1487434							

176.6 1946

48 2276

350

DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER
1892 JUN 5	5	LENROOT 6-1-03 Amended	220	39
" " 14	14	TEXAS FEEDER Texas Slough Co.	280	226
" " 26	26	LOWDER & JENNINGS	52	26
MAY 1 130	130	CORBETT SLOUGH	23943	10943
1891 DEC 4 600	600	RESERVATION Idaho Canal & Imp Co	600	0
" JUN 1 4.8	4.8	NELSON-GOREY P.O. Carlseth	168	12
" " 1 6	6	ARNSBERGER Supplemental	6	0
" " 1 15	15	LENROOT 6-1-03 & 99 Amend.	220	24
" " 1 195	195	ISLAND 105 Supplemental	28940	9440
" " 1 14	14	TEXAS FEEDER Texas Slough Co.	280	212
" JAN 24 100	100	GR WEST & PORTER New Sweden Dist	57178	17178
1890 NOV 24 72	72	NEW LAVA SIDE	152	80
" OCT 16 17	17	BUTTE & MARKET LAKE Lavinia Cutshaw	368.7	351.7
" " 16 349.4	349.4	BUTTE & MARKET LAKE	368.7	2.30
" " 16 10.6	10.6	OSGOOD Butte & M. Lake	128.55	17.95
" JUL 12 240	240	HARRISON	451.94	51.94
" JUN 10 240	240	BURGESS	80061	40061
" " 1 8.8	8.8	KITE & NORD Holfield-Nord-Parsons	8.8	0
" " 1 0.8	0.8	STEELE Holfield	742	662
" " 1 65.41	65.41	TREGO	6941	0
" " 1 4.59	4.59	KENNEDY & BURGRAFF Trego	2249	1790
" " 1 26	26	LOWDER & JENNINGS 6-1-00 Error	52	0
" FEB 21 17.8	17.8	SMITH-MAXWELL Smith-Jardis-Droemer	17.8	0
" 1889 JUL 10 366.8	366.8	BLACKFOOT Blackfoot	366.8	0
" " 10 6.00	6.00	OSGOOD	128.55	11.95
" " 10 20.72	20.72	GR WEST & PORTER Blackfoot	57178	16106
" " 10 6.48	6.48	KENNEDY & BURGRAFF Blackfoot	2249	11.42
" " 10 6	6	CHENEY	6	0
" JUN 2 0.66	0.66	GR WEST & PORTER Long Island	57178	15040

DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER
1889 JUN 1 8	8	FARMERS FRIEND Long Island	34283	33483
" " 1 6	6	LENROOT	220	18
" " 1 30	30	RUDY	19126	11126
" " 1 80	80	REID	150	70
" " 1 44	44	CONSOLIDATED FEEDER Sunnydell-Lymate	184	0
" " 1 38	38	TEXAS FEEDER Liberty Park Co	280	174
" " 1 9.69	9.69	LONG ISLAND	45241	44272
" " 1 19.76	19.76	ISLAND Long Island	28940	7464
" " 1 1.63	1.63	HARRISON (Long Is)	45194	5031
" " 1 0.26	0.26	KENNEDY & BURGRAFF Long Island	2249	1116
" MAY 11 700	700	IDAHO	740	40
" " 1 109.43	109.43	CORBETT SLOUGH Corbett (Williams)	23943	0
" " 1 5.75	5.75	OSGOOD (Corbett)	127.72	6.20
" " 1 2	2	GR WEST & PORTER Corbett (Williams)	57178	14840
" " 1 2.82	2.82	KENNEDY & BURGRAFF Corbett Slough	2249	834
" APR 15 300	300	ANDERSON & R. W. C. Farmers Progress	800	500
" " 6 2.00	2.00	SNAKE RIVER VALLEY Cedar Point	710	0
" MAR 1 60	60	NEW LAVA SIDE	152	20
" JAN 12 5	5	KENNEDY & BURGRAFF W. S. Lyle Amendment	2249	334
1888 AUG 13 100	100	RUDY	19126	1126
" " 13 40	40	IDAHO	740	0
" " 13 260	260	BOOMER Idaho Canal & Imp Co	260	0
" JUL 15 30.2	30.2	WATSON SLOUGH	97.4	67.2
" " 15 16.6	16.6	PEOPLES Watson Slough	424.2	7.6
" " 15 3.2	3.2	WEARYRICK Watson Slough	41.2	38
" JUN 15 120	120	RIGBY	160	40
" " 10 380	380	BURGESS	80061	2061
" " 1 0.61	0.61	BURGESS Long Island	80061	20
" " 1 80	80	DANSKIN	180	100
" " 1 92	92	EAST LABELLE	140	48
" " 1 38	38	TEXAS FEEDER Liberty Park Co	280	136
" " 1 211.12	211.12	PARKS & LEWISVILLE Lewisville	95112	140
" " 1 28.88	28.88	HARRISON	45194	2143

DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER
1888 JUN 1 2	2	RUDY G.E. Rostati	19126	926
" " 1 3.94	3.94	ROSS & RAND Supplemental	334	0
" " 1 2	2	STEELE Supplemental Probert	742	462
" " 1 5.88	5.88	LONG ISLAND	45241	43684
" " 1 29.64	29.64	ISLAND Long Island	28940	45
" " 1 1.54	1.54	GR WEST & PORTER Long Island	57178	14686
" " 1 1.95	1.95	HARRISON Long Island	45194	1948
" " 1 0.38	0.38	KENNEDY & BURGRAFF Long Island	2249	296
" " 1 20	20	FARMERS FRIEND Long Island	34283	31483
" " 1 0.8	0.8	GR WEST & PORTER John Mattson	57178	14606
" " 1 2.4	2.4	MATTSON-CRAIG Supplemental Bonds	2016	4.8
" " 1 13.2	13.2	BRAMWELL Supplemental	13.2	0
" " 1 4.8	4.8	ELLIS Supplemental	4.8	0
" MAY 13 3.2	3.2	WATSON SLOUGH H.M. Palmer	97.4	64
" " 1 1.0	1.0	GR WEST & PORTER J.B. Morgate	57178	14606
" JAN 18 300	300	FARMERS FRIEND	34283	1483
" 1887 JUN 15 20	20	RIGBY	160	20
" " 10 10	10	BURGESS	80061	10
" " 1 90	90	RIVERSIDE	100	10
" " 1 38	38	TEXAS FEEDER Liberty Park Co	280	98
" " 1 12	12	NELSON-COREY	168	0
" " 1 4.8	4.8	MATTSON-CRAIG R.A. Craly	2016	0
" " 1 30	30	ISLAND	28940	15
" " 1 44.48	44.48	LONG ISLAND	45241	39236
" " 1 1.53	1.53	GR WEST & PORTER Long Island	57178	14853
" " 1 1.60	1.60	HARRISON Long Island	45194	1783
" " 1 0.39	0.39	KENNEDY & BURGRAFF Long Island	2249	257
" " 1 12	12	FARMERS FRIEND Long Island	34283	283
1886 JUL 23 100	100	DANSKIN	180	0

DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER
1886 JUN 15 10	10	RIGBY	160	20
" " 10 10	10	BURGESS	80061	10
" " 1 1.6	1.6	WATSON	97.4	64
" " 1 15	15	ISLAND	28940	15
" " 1 30	30	REID	150	70
" " 1 40	40	REID	150	70
" " 1 58.98	58.98	LONG ISLAND	45241	43684
" " 1 0.64	0.64	HARRISON	45194	1948
" " 1 0.38	0.38	KENNEDY & BURGRAFF	2249	1116
" MAY 3 38	38	WEARYRICK	41.2	38
" " 1 2	2	GR WEST & PORTER	57178	14606
" JAN 7 120	120	GR WEST & PORTER	57178	14606
1885 JUN 30 22	22	PARKS & LEWISVILLE	95112	140
" " 15 10	10	RIGBY	160	20
" " 10 12.4	12.4	HARRISON	45194	1948
" " 10 1	1	STEELE	742	462
" " 10 1	1	STEELE	742	462
" " 1 10	10	RIVERSIDE	100	10
" " 1 48	48	TEXAS FEEDER	280	136
" " 1 100	100	PARKS & LEWISVILLE	95112	140
" " 1 48	48	EAST LABELLE	140	48
" " 1 9	9	LENROOT	220	39
" " 1 30	30	REID	150	70
" " 1 109.90	109.90	WEST & PORTER	57178	14606
" " 1 6.40	6.40	WHITNEY	6.40	0
" " 1 3.70	3.70	OSGOOD	128.55	17.95
" " 1 54.16	54.16	BUTTE & MARKET LAKE	368.7	2.30
" " 1 3.62	3.62	STEELE	742	662
" " 1 7.26	7.26	RUDY	19126	1126
" " 1 2.83	2.83	FARMERS FRIEND	34283	1483
" " 1 2.83	2.83	FARMERS FRIEND	34283	1483

PLATE NO XXXV

TOTAL	OLDER	DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER	DATE	DECREE	PARTY OR CANAL	TOTAL	OLDER
19126	926	1886 JUN 25	10	RIGBY	160	10	1885 JUN 1	0.93	GR WEST & PORTER	57178	15
334	0	"	10	BURGESS	80061	0	"		Butler Island		
742	462	"	1	1.6 WATSON SLOUGH	974	624	"	1	1.20 HARRISON (Long Is)	45194	364
45241	43684	"	1	15 ELIZABETTER ISLAND	28940	0	"	1	58.97 LONG ISLAND	45241	27441
28940	45	"	1	50 TEXAS FEEDER	280	48	"	1	0.64 HARRISON (Long Is)	45194	300
57178	14686	"	1	0.8 GR WEST & PORTER	57178	14273	"	1	0.39 KENNEDY & BURGRAFF	2249	180
45194	1948	"	1	4.8 GR WEST & PORTER	57178	18793	"	MARG	62.4 WATSON SLOUGH	974	0
2249	296	"	1	2 RUDY	19126	726	"	6	7.6 PEOPLES (Watson Sl)	424.2	0
34283	31483	"	1	40 REID	150	30	"	FEB 27	70 CLARK & EDWARDS	70	0
57178	14606	"	1	58.98 LONG ISLAND	45241	33338	1884 JUN 4	29.2	INDEPENDENT	29.2	0
20.16	4.8	"	1	0.64 HARRISON	45194	1724	"		230 BUTLE & M. LAKE	3687	0
13.2	0	"	1	0.38 KENNEDY & BURGRAFF	2249	219	"		Independent		
4.8	0	"	1	38 WEARYRICK	412	0	"		2.50 OSGOOD (Independ)	128.55	0
974	64	1885 JUN 30	22	GR WEST & PORTER	57178	13593	"	1	20 NEW LAVASIDE	152	0
57178	14506	"	15	120 GR WEST & PORTER	57178	1593	"	1	20 PARKS & LEWISVILLE	35112	20
34283	1483	"	10	PARSONS	22	0	"	1	9 LENROOT	220	0
160	20	"	10	12.4 HARRISON	45194	484	"	1	58.98 LONG ISLAND	45241	21543
80061	10	"	1	ST & W Summers	742	362	"	1	0.64 HARRISON (Long Is)	45194	236
100	10	"	1	10 RIVERSIDE	100	0	"	1	0.38 KENNEDY & BURGRAFF	2249	142
280	98	"	1	48 TEXAS FEEDER	280	0	1883 JUN 10	50	NORTH RIGBY	50	0
168	0	"	1	100 PARKS & LEWISVILLE	35112	40	"	1	20 PARKS & LEWISVILLE	35112	0
20.16	0	"	1	48 EAST LABELLE	140	0	"	1	15 NIELSEN-HANSEN	15	0
28940	15	"	1	9 LENROOT	220	9	"	1	15 GR WEST & PORTER	57178	0
45241	39236	"	1	30 REID	150	0	"	1	58.97 LONG ISLAND	45241	15646
57178	14853	"	1	109.90 WEST LABELLE	10990	0	"	1	0.64 HARRISON (Long Is)	45194	172
45194	1788	"	1	6.40 WHITE	640	0	"	1	0.39 KENNEDY & BURGRAFF	2249	103
2431	257	"	1	3.70 OSGOOD	128.55	2.50	1882	1	58.98 LONG ISLAND	45241	9748
34283	283	"	1	54.16 BUTLER ISLAND	5416	0	"	1	0.64 HARRISON (Long Is)	45194	108
180	0	"	1	3.62 STEELE	742	0	"	1	0.38 KENNEDY & BURGRAFF	2249	0.65
		"	1	7.26 RUDY	19126	0	1881 JUN 1	38.96	LONG ISLAND	45241	3852
		"	1	283 FARMERS FRIEND	34283	0	"	1	0.65 HARRISON (Long Is)	45194	0.43
		"	1				"	1	0.39 KENNEDY & BURGRAFF	2249	0.26

NOTES - ALL DECREES ARE LISTED IN SECOND FT STORAGE IS LISTED IN ACRE FEET. OSGOOD HAS STORAGE IN TWIN LAKES. USRS HAS ADDITIONAL STORAGE IN LAKE WALCOTT. LICENSE AND PERMIT RIGHTS NOT SHOWN. A & J - SEE TEXT FOR EXPLANATION.

These two, the Farmers Friend and the Twin Groves Canals own no permanent rights in Henrys Lake Reservoir but purchased water for the 1926 season only. This reservoir is owned and controlled by the North Fork Reservoir Company whose stock is held by seven different canal companies. These latter, therefore, participate in the benefits received (whether money from sales or water impounded) each season in proportion to their stock holdings which in per cent are as follows: Dowey and Last Chance (combined), 15.3; St. Anthony Union, 6.8; Salem Union, 24.2; Virgin, 6.8; Independent, 26.8; and Consolidated Farmers, 20.1. While these percentages define the individual rights, actual diversions upon a disproportionate basis may be sanctioned by mutual agreement of the stockholders, hence no attempt has been made to compare these two items.

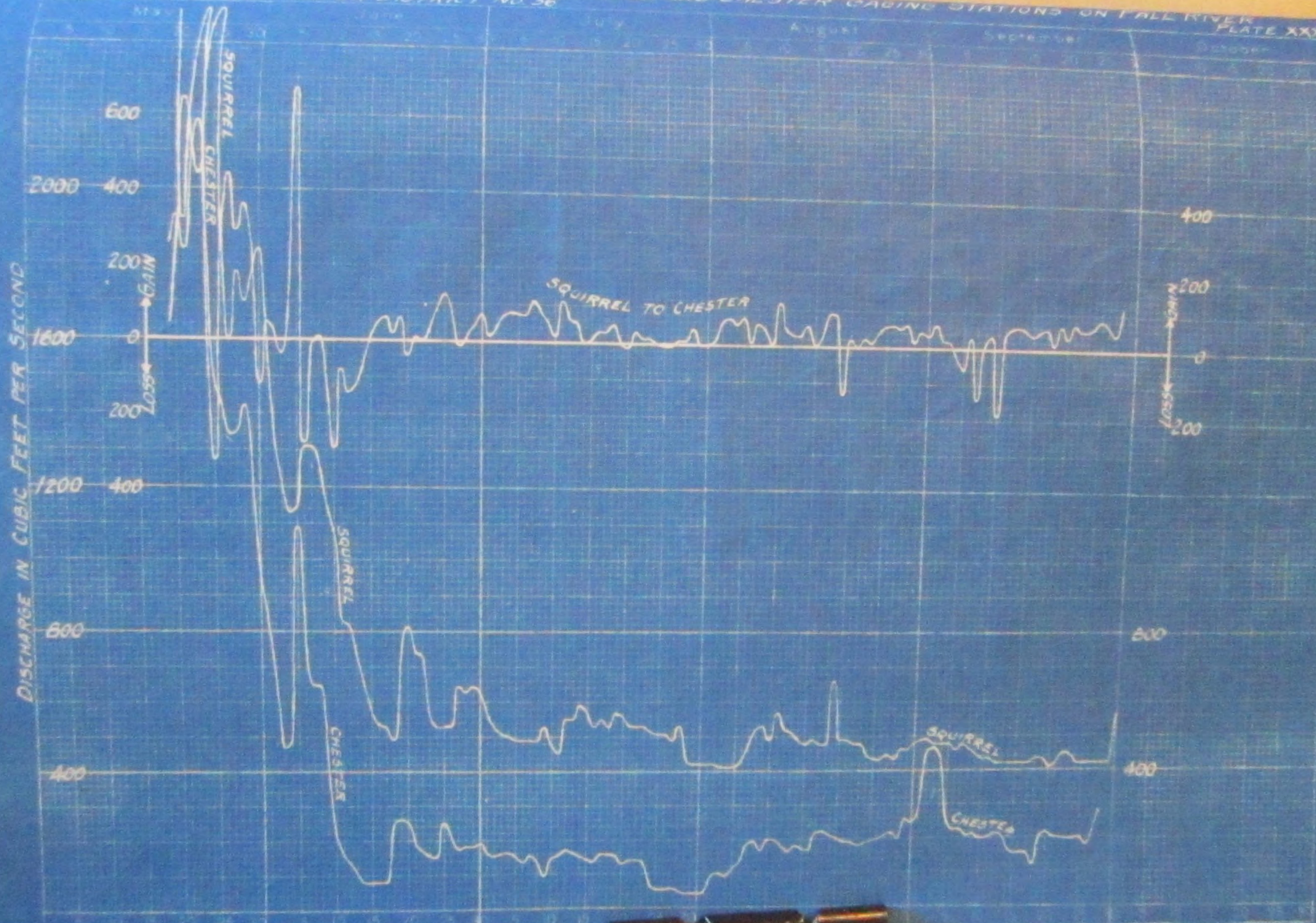
During 1926 no storage was required by the St. Anthony Union system.

Plate XXXI presents hydrographs for the two gaging stations on Fall River and a graph of indicated net gains or losses above the lower or Chester station. These are plotted to coincide with the dates at Squirrel.

As might be expected, the average net gain noted is slightly greater than that for 1924 but is less than is generally recorded in normal water supply years.

Pronounced irregularities which appear in these curves are presumably chiefly due to the inaccurate daily mean discharges computed for the upper station which is not equipped with a recording gage.

RELATIONS AND GAINS BETWEEN THE SQUIRREL AND CHESTER GAGING STATIONS ON FALL RIVER
 1926 DISTRIBUTION WATER DISTRICT NO. 36
 PLATE XXXI



The hydrograph for the Roxburg station and graphs showing gains and losses above and below St. Anthony are included on Plate XXII. These are all plotted to agree with the Roxburg dates.

Comparison with similar plates contained in reports for previous years reveals no marked peculiarities which are not readily explainable by climatic or seasonal differences to which attention has already several times been directed.

DISTRIBUTION IN SWAN VALLEY

Mr. Wm. Burton was appointed as deputy water master for the Swan Valley section but his salary and other expenses incident to the work were paid directly by the local water users, in accordance with the custom followed during preceding years. Copies of all instructions regarding cuts and reinstatements were forwarded to him by mail and he was directed to regulate all diversions in accordance with these orders. Aside from the slight delay resulting from the method of communication regulation in this section was therefore consistent with that in other portions of the district.

A number of complaints and counter complaints were received during the season concerning the control or lack of control over the flow of Granite Creek, a tributary of Snake River near the lower end of Conant Valley. Based upon 1917 and 1918 measurements this stream has a total flow during most of the summer of less than one second-foot but it appears to be particularly valuable as a source of domestic supply for adjacent dry farmers. An attempt was made to

NET LOSSES AND GAINS BETWEEN THE ASHTON AND ST. ANTHONY GAGING STATIONS ON HENRY'S FORK
 1956 DISTRIBUTION WATER DISTRICT NO. 36
 PLATE XXXII



settle questions involving irrigation use of this water (chiefly for small garden patches) through office conferences, correspondence and by sending Mr. Burton into the locality, but no jurisdiction was assumed over the quality of the water. This latter question was raised by some of the objectors who accused their upstream neighbors of purposely contaminating the supply and rendering it unfit for household use. While the whole situation resembled somewhat the proverbial "tempest in a teapot" only patience, persuasion and finances prevented the appointment of an extra deputy water master to take charge of this stream.

No other unusual difficulties were reported from this section.

DISTRIBUTION ON SAND CREEK, FREMONT COUNTY

Water distribution on Sand Creek in Fremont County in 1926 was handled strictly as a local problem. No request for the appointment of a deputy water master was made and since this stream is really not a surface tributary to Henrys Fork during the ordinary regulation period, it was entirely neglected as a part of District No. 36 work.

CLIMATOLOGICAL DATA

Study of the U. S. Weather Bureau monthly and annual climatological summaries covering the twelve months ending September 30, 1926 affords much information of interest and serves to explain certain phases of the year's water supply which might otherwise be difficult to understand.

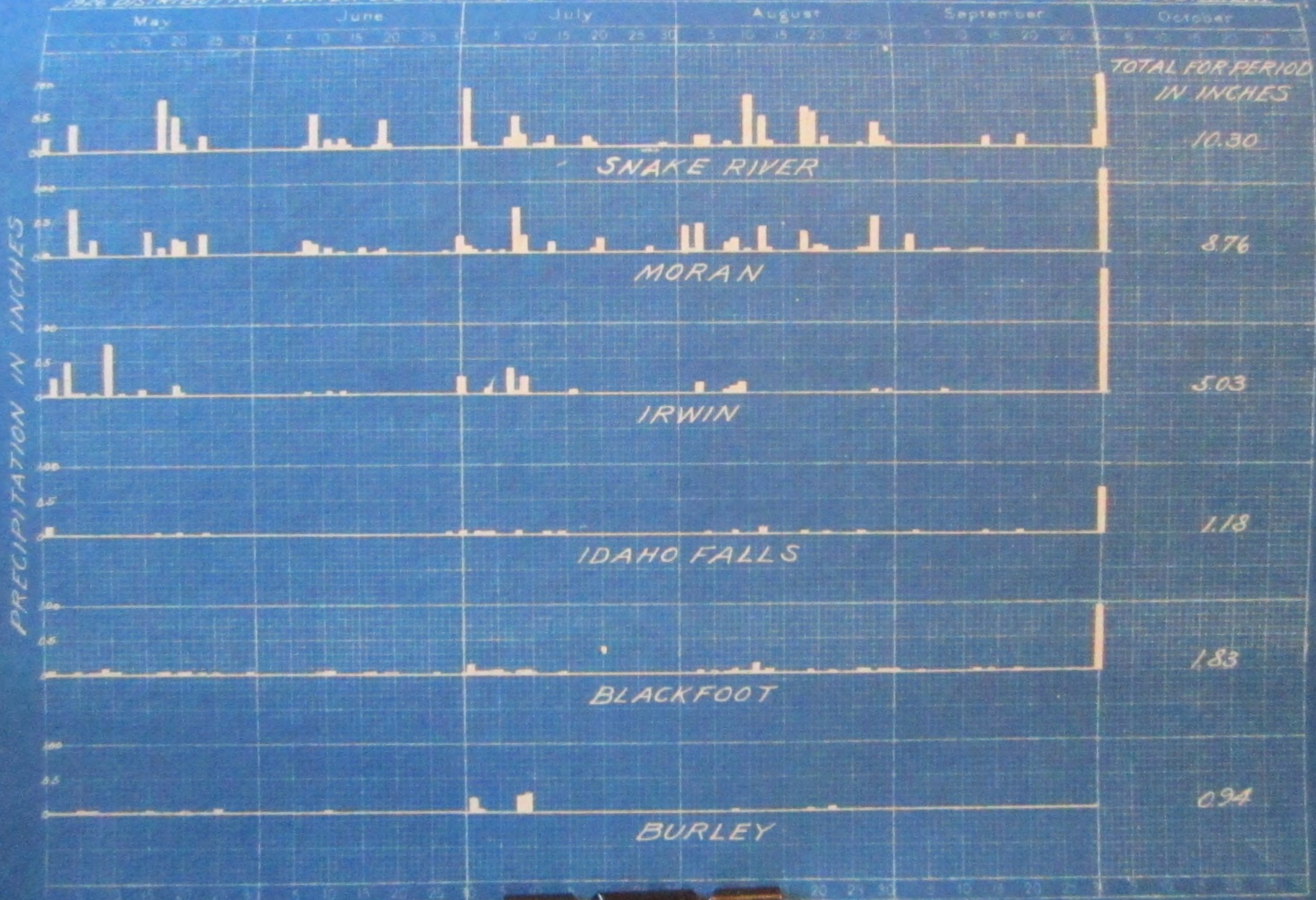
The following notes from the Idaho and Wyoming section reports describe the principal monthly peculiarities:

October	1925	Both precipitation and temperature below normal.
November	1925	Nearly an average month in Snake River drainage area.
December	1925	Above normal temperatures but subnormal precipitation.
January	1926	Material deficiency in precipitation noted.
February	1926	Unusually warm. Precipitation about normal.
March	1926	The warmest March since 1915 and without exception the driest of record in Idaho. Wyoming conditions quite similar.
April	1926	With one exception the warmest April of record in Idaho. Precipitation below normal.
May	1926	Mean temperature slightly above normal. Material deficiency in precipitation.
June	1926	Another warm month with pronounced shortage in rainfall.
July	1926	Temperatures slightly above normal with nearly average precipitation.
August	1926	In Idaho the tenth consecutive month with mean temperature above normal. Precipitation somewhat spotted but generally above normal.
September	1926	The coldest September of record in Idaho with very hard frosts noted on the 24th and 25th. Precipitation a little above normal with heavy rains quite general on the last day of the month.

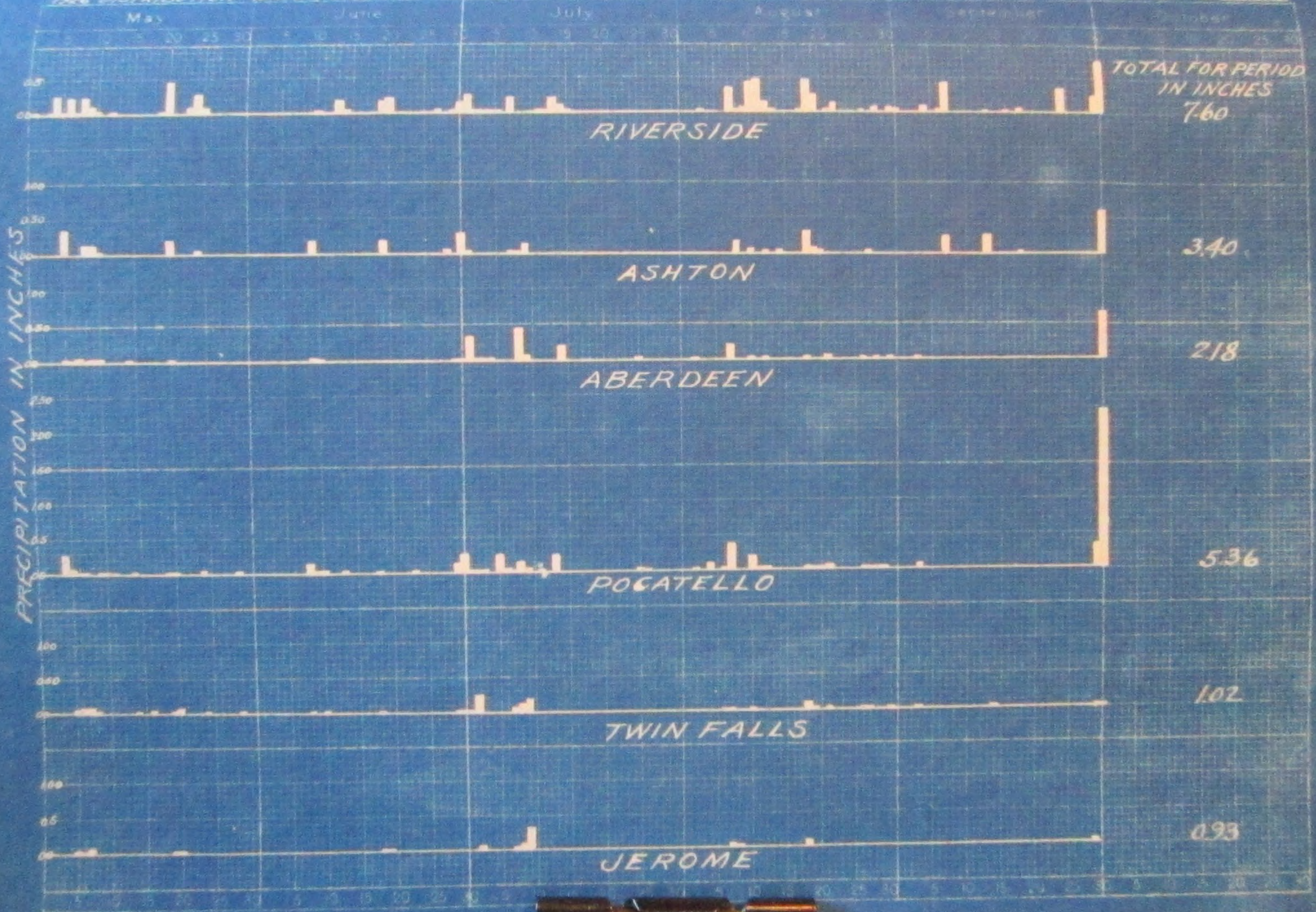
Because of the above normal temperatures indicated throughout the spring and early summer crops matured much earlier than usual and this fact helped materially to minimize the losses attributable to water shortage.

The amount and distribution of precipitation at the principal observation points throughout District No. 36 territory is shown graphically for the irrigation season on Plates XXXIII and XXXIV.

1926 DAILY PRECIPITATION DIAGRAM-SNAKE RIVER AREA
 1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE NO. XXXIII



1926 DAILY PRECIPITATION DIAGRAM - SNAKE RIVER AREA
 1926 DISTRIBUTION WATER DISTRICT NO. 36. PLATE NO XXXIV



The record at the Riverside station near the west entrance to Yellowstone National Park is not altogether consistent with those for the other stations but has been included because of its proximity to Henrys Lake.

Month	Total Number of Stations	Number Above Normal	Number Below Normal	Monthly Aver. Precip. in inches for all years of Record	Average Precip. in inches for specific Month	Mean Departure from Average Amount In inches.
1925						
October	8	1	7	1.366	0.959	-0.407
November	8	5	3	1.248	1.365	+0.137
December	8	2	5	1.432	1.186	-0.246
1926						
January	8	0	8	1.861	0.915	-0.946
February	8	4	4	1.376	1.466	+0.090
March	8	0	8	1.592	0.491	-1.101
April	8	3	5	1.355	1.174	-0.181
May	8	1	7	1.744	1.054	-0.690
June	8	0	8	1.292	0.458	-0.834
July	8	4	4	0.931	0.766	-0.165
August	8	4	4	0.782	1.060	+0.278
September	8	4	4	<u>1.126</u>	<u>1.291</u>	<u>+0.165</u>
			Total	16.105	12.205	-3.900

No 1926 records were secured at the American Falls station and the elimination of these data necessarily changes the averages slightly from what would have been tabulated had the same nine stations formerly used again been available.

Records have been obtained at the eight points listed for periods ranging from 16 to 32 years and for this reason, as well as because of their fairly general distribution throughout the Upper Snake drainage area, the combined data may be expected to be fairly representative in character when applied to District 36. The group totals show that precipitation for the entire twelve months amounted to 75.8 per cent of the average while actual run-off for the same

time as determined from records secured at Moran, Wyoming (see page 13) represented 69.6 per cent of a 23 year mean.

EVAPORATION

U. S. Weather Bureau publications should be consulted for 1926 evaporation data at southern Idaho points. No special stations were maintained and for this reason no records will be included herein.

NEW CONSTRUCTION AND REPAIRS

A complete new Snake River gaging station was installed during the summer by the Twin Falls Canal Company at what is known as the Robertson Ranch about $1\frac{1}{2}$ miles above the mouth of Blackfoot River; a new concrete recording gage shelter was constructed during September at the station on Henrys Fork near Rexburg and in November, after a preliminary low water reconnaissance, new measuring cable equipment was installed for use in connection with the U. S. Bureau of Reclamation gage on Snake River a short distance below the American Falls dam.

EXPENDITURES

A complete statement of expenditures covering the year ending March 31, 1927 follows. This statement includes all general charge items which appeared in the annual water master's bill for the season of 1926, as well as everything pertaining to the work of the Idaho Falls office. No attempt has been made, however, to segregate expense for strictly hydrologic work from that for water distribution, as in many respects these phases are too closely related to warrant more than an arbitrary separation.

While some of the construction charges were not specifically included in the pre-season budget they were later authorized and paid as a part of the regular expense. Hence it seems unnecessary to segregate the different items between regular and special work. Salaries and expenses of Upper Valley members of the Committee of Nine and a few charges against individual canals on account of head-gate repairs have been omitted from this summary as they were assessed only against those benefitted.

All general water users charges were prorated on the basis of 60 per cent against normal flow and 40 per cent against stored water. Stored water totals were in turn segregated between the principal reservoirs in the district in proportion to their approximate available capacities. The 1925 capacity ratio was used for this purpose during April and May, following which 868 for Jackson Lake-American Falls, 60 for Henrys Lake and 4 for Twin Lakes were applied.

EXPENDITURES FOR WATER DISTRIBUTION AND HYDROLOGIC WORK

April 1, 1926 to March 31, 1927.

Water Master, Special Deputy and Deputy

G. Clyde Baldwin,	Salary Apr. 1-Mar. 31, 1 year @ \$4800	\$4800.00
	Expenses do	346.59
	Auto hire do	340.21

Hydrographers

Thomas R. Newell,	Salary June 1-4, 4/30 mo. @ \$250.00	33.33
Lester L. Bryan,	Salary Apr. 1-Noon Nov. 9, 7 8 1/2/30 mo. @ \$216.67	1578.08
	Expenses do	60.90
	Auto hire do	661.05
C. A. McClelland,	Salary Apr. 1-Dec. 31, 9 mo. @ \$216.67	1950.02
	Jan. 1-Mar. 31, 3 mo. @ \$225.00	675.00
	Expenses do	105.50
	Auto hire do	914.68

Hydrographers

Mans H. Coffin,	Salary Apr. 20-May 23 & Oct. 1-Dec. 15, 3 19/30 mo. @ \$180.00	\$654.00
	May 24-Sept. 30, 4 7/30 mo. @ \$160.00	677.33
	Dec. 16-Mar. 31, 3 15/30 mo. @ \$200.00	700.00
	Expenses do	31.19
	Auto hire do	1035.64
Leo K. Homer,	Salary May 24-Aug. 31, 3 7/30 mo. @ \$150.00	485.00
	Expenses do	17.85
	Auto hire	641.03
C. T. Judah,	Salary May 17-June 30, 1 14/30 mo. @ \$135.00	198.00
	July 1-Sept. 30, 3 mo. @ \$145.00	435.00
	Expenses do	9.97
	Auto hire do	674.83
John H. Reed,	Salary Apr. 19-June 30, 2 12/30 mo. @ \$130.00	312.00
	July 1-Sept. 30, 3 mo. @ \$140.00	420.00
	Expenses do	8.70
	Auto hire do	961.48

Deputy Water Masters

Bruno Albert,	Salary May 19-Sept. 30, 4 12/30 mo. @ \$50.00	220.00
	Auto hire do	220.00
T. W. Luetjen,	Salary May 20-Sept. 30, 134 days @ \$4.00	536.00
	Auto hire do @ \$3.25	435.50
W. J. Kremer,	Salary May 10-Sept. 30, 144 days @ \$4.00	576.00
	Auto hire do @ \$4.00	576.00
Wm. Sauer,	Salary May 11-Sept. 30, 143 days @ \$4.00	572.00
	Auto hire do @ \$3.75	536.25
C. A. McCurdy,	Salary May 12-Aug. 24, 105 days @ \$4.00	420.00
	Auto hire do @ \$3.75	393.75
S. W. Dennis, Jr.,	Salary Aug. 25-Sept. 30, 37 days @ \$4.00	148.00
	Auto hire do @ \$3.75	138.75
D. G. Taylor,	Salary May 11-Sept. 30, 143 days @ \$4.00	572.00
	Auto hire do @ \$3.25	464.75
W. N. McCommel	Salary May 20-Sept. 30, 4 11/30 mo. @ \$50.00	218.33

Stenographers

Alfreda Haggerty,	Salary Apr. 1-10 & Apr. 14-June 30, 2 27/30 mo. @ \$110.00	319.00
	July 1-Oct. 31, 4 mo. @ \$115.00	460.00
	Salary July 10-11, 1 1/2 days @ \$4.00	6.00
Snow Coffin,	Salary May 17-Sept. 30, 4 14/30 mo. @ \$40.00	178.67
Evelyn L. Baker,	Salary Oct. 25-Feb. 28, 4 6/30 mo. @ \$110.00	462.00
Helen George,	Mar. 1-31, 1 mo. @ \$125.00	125.00

Cage Readers

Stanley Boyle,	Salary Apr. 1-16, 16/30 mo. @ \$15.00	8.00
Mrs. J. L. Carter,	Salary May 17-Mar. 31, 10 14/30 mo. @ \$15.00	157.00
J. D. Luetjen,	Salary Apr. 1-May 19, 1 19/30 mo. @ \$9.00	14.70

Gage Readers

Walter Lenz,	Salary Oct. 1-Mar. 31, 6 mo. @ \$9.00	\$54.00
Mrs. J. F. Johnson,	Salary Apr. 2-May 1, 1 mo. @ \$7.50	7.50
Harold Fuqua	Salary Apr. 21-May 19, 29/30 mo. @ \$5.00	4.83
	May 20-Sept. 30, 4 11/30 mo. @ \$12.00	52.40
	Oct. 11-Dec. 31, 2 20/30 mo. @ \$6.00	16.00
Mrs. Irvin Sieport,	Salary Apr. 1-May 16, 1 16/30 mo. @ \$7.50	11.50
	May 17-Sept. 30, 137 days @ \$0.75	102.75
	Oct. 1-Nov. 30, 2 mo. @ \$5.00	10.00
B. F. Smith,	Salary Apr. 1-May 9, 11 trips @ \$1.00	11.00
	Oct. 2-Dec. 4, 11 trips @ \$1.00	11.00
John Rice,	Salary Dec. 5-11, 1 trip @ \$1.00	1.00
	Dec. 12-Mar. 31, 110 days @ \$0.60	66.00
W. H. Kremer,	Salary May 20-Sept. 30, 134 days @ \$1.00	134.00
Maggie Anderson,	Salary Apr. 25-May 10, 2 trips @ \$1.00	2.00
Eva Davis,	Salary May 10-Sept. 30, 144 days @ \$1.00	144.00
J. A. Clough,	Salary Apr. 1-May 10 & Oct. 1-Mar. 31, 7 10/30 mo. @ \$10.00	73.33
	May 11-Sept. 30, 143 days @ \$1.00	143.00
A. J. Ayers, *	Salary Oct. 1-May 31, 8 mo. @ \$8.00	64.00
	June 1-Sept. 30, 4 mo. @ \$50.00	200.00
G. S. Gilham	Salary May 20-Sept. 30, 4 11/30 mo. @ \$10.00	43.67

Secretary, Water Users Committee of Nine

John Lee, *	Salary Feb. 27, Mar. 1 & 29, May 20-22, July 7 & 15 & Sept. 28, 9 days @ \$5.00	45.00
	Expenses do	36.20
	Auto hire do	19.24

Miscellaneous

Materials, labor and equipment for gaging stations	830.96
Field and office equipment (instruments, etc.)	387.67
Telephone and Telegraph	539.48
Field and office supplies	317.15
Premiums on official bonds	20.75
Interest on borrowed money	196.74
Employees compensation insurance	157.58
Total	<u>\$30,187.83</u>

* These items were computed for the year ending September 30, 1926.

SOURCES OF REVENUE

Normal Flow Fund	\$16,511.35
Normal Flow Users (Direct assessment in 1926 District No. 36 Water Master bill)	218.66
Jackson Lake and American Falls Stored Water Users (through State)	9,658.74
Jackson Lake and American Falls Stored Water Users (Credit in 1926 District No. 36 Water Master bill)	135.77
North Fork Reservoir Company (through State)	646.87
Utah-Idaho Sugar Company (through State)	45.30
Sheppard & Company (through State)	31.66
U. S. Geological Survey	661.27
State of Idaho (Cooperative Stream Measurement Fund)	2,991.37
State of Idaho (Commissioner of Reclamation)	24.59
Minidoka Irrigation District	54.72
Burley Irrigation District	27.56
North Side Canal Company, Ltd.	82.09
Twin Falls Canal Company	82.08
Utah Power & Light Company	16.00
Total	<u>\$30,187.83</u>

*FUNDS AVAILABLE April 1, 1927

Normal Flow Fund (a)	1,375.15
Milner Low Lift Irrigation District (Unpaid 1926 Water Master bill)	30.87
Jackson Lake Stored Water Users (a)	9.24
North Fork Reservoir Company (b)	17.32
Sheppard & Company (b)	18.34
U. S. Geological Survey (c)	602.03
State of Idaho, Cooperative Stream Measurement Fund (d)	1,094.00
Total	<u>5,146.95</u>

* Amounts given in this table represent funds in bank or definitely known to be available after all accounts (except a few outstanding claims which had not yet been presented) were settled and adjusted to and including March 31, 1927.

- (a) Additional funds probably available on or before June 1, 1927.
- (b) Represents unexpended portion of money advanced.
- (c) Represents amount available for expenditure prior to July 1, 1927.
- (d) Amount allotted for expenditure prior to July 1, 1927
(Subject to slight change).

Two important items are not included in these summaries for the reason that their exact value is not definitely known. These are:

- (1) The rent equivalent of the office quarters and furniture in the Federal Building at Idaho Falls. Because of the cooperation

with the U. S. Geological Survey this very desirable office space and equipment is made available without charge.

(2) The cost of securing the necessary prints for and the binding of 55 copies of the 1925 report which was paid direct by the State Commissioner of Reclamation.

The total annual expenditure amounting to \$30,187.83 is greater than that of the preceding year by \$4,734.63 but is less than that for the year ending March 31, 1925 by \$3,796.71. These differences reflect, to some extent, inversely the water supply characteristics of the respective seasons since costs are generally greatest during years of most deficiency. Another important factor which made the 1924 expenditures unusually heavy was the large amount of special investigation work accomplished during that year.

WATER RIGHTS

Decreed rights having their source of supply in Honrys Fork, Fall and Teton Rivers have remained substantially unchanged during the past two years and in consequence the diagrams covering these streams which are contained in the 1924 report are still applicable. Several small permanent transfers have recently been granted which affect some of the canals diverting from Snake River proper and, in addition, material increase in storage rights has resulted from the completion of the American Falls Dam. These changes have been made and the revised rights as of April 1, 1927 are shown on Plate XXXV.

On the diagrams, the longer vertical line at the right hand side of each triangular block represents approximately the

priority date, and the horizontal length of the block the size of the right. Very small rights appear simply as vertical lines. Exact dates and amounts are given in the adjacent tabular summary. Wherever two names appear in the latter for a single decreed right, the larger letters refer to the canal through which the water is now diverted and the smaller to the source from which the right was obtained. Under the "Decree" heading the amount of the individual right is listed; under "Total" the total of all decreed rights to which the canal is entitled; and under "Older" the total of all older valid rights is given.

What may be considered permanent storage rights are listed under the "Storage" heading. These represent a combination of Jackson Lake and American Falls water, referred to respectively by the letters "J" and "A". Should some of the American Falls contractors later decide to take their construction cost rebate in money rather than in water these items will be changed somewhat. Slight changes may also be necessary when the final unit cost of the reservoir is definitely established. The following table supplements the storage data contained in this column:

	Acro-feet
Storage rights listed on Plate XXXV	1,457,434
American Falls Reservoir District (unallotted)	631
United States (held for specific projects or for sale)	1,043,935
Idaho Power Company	45,000
Combined capacity of American Falls and Jackson Lake Reservoirs.	<u>2,547,000</u>