

STATE OF IDAHO

C. C. MOORE, GOVERNOR

DEPARTMENT OF RECLAMATION

W. G. SWENDSEN, COMMISSIONER

BOISE

April 15, 1926

HONORABLE C. C. MOORE
Governor of Idaho
Boise, Idaho

Sir:

It is my privilege to transmit this, the Seventh Annual Report of the administration of Snake River.

The first organization of personnel on all-year basis was perfected in 1919 by mutual agreement of the many waterusers who derive their irrigation supply from Snake River. The desirability of maintaining the organization which now functions in this matter is, I believe, generally prevalent.

Snake River is the one greatest resource of Idaho. It has been the means of bringing more people to the State and now supports and keeps more people in the State than any other natural resource we have.

To regulate this stream in accordance with the decrees and priorities of all existing water rights is an intricate task and its accomplishment has been generally satisfactory to the people who depend upon the River for their livelihood.

To Mr. Baldwin, the head of the organization which has effected an intelligent, equitable and orderly distribution of Snake River water for the past seven years, is due a great amount of credit, and to the people of Snake River valley, who have advised and worked with him, I wish to convey my acknowledgement of thanks.

Yours very respectfully,

(Signed) W. G. SWENDSEN

Commissioner of Reclamation

STATE OF IDAHO
DEPARTMENT OF RECLAMATION

W. G. SWENDSEN, COMMISSIONER
G. CLYDE BALDWIN, DEPUTY

WATER DISTRICT NO. 36

IDAHO FALLS, IDAHO

Idaho Falls, Idaho
April 10, 1926.

Mr. W. G. Swendsen,
Commissioner of Reclamation,
Boise, Idaho.

Dear Sir:

I take pleasure in submitting herewith the technical report covering all regular water distribution and hydrometric operations in Water District No. 36 for the irrigation season of 1925.

U. S. Geological Survey methods have been used throughout as a standard for the collection and compilation of hydrometric data. Most of the latter which are included have been recomputed since the close of the irrigation season, and in this, as well as in other respects, the report is similar to and consistent with reports for the six 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 1925 through the advance of money by the Upper Snake River Water Users Protective Union, the Twin Falls Canal Co. and the North Side Canal Co. Ltd.

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

Appreciation should also be expressed to the members of the Water Users Committee of Nine of District No. 36 for their cooperation in the work and for their readiness to furnish advice and assistance as 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 years operations.

For valued assistance in the preparation of this report acknowledgment is accorded to C. A. McClelland, L. L. Bryan, Mrs. Bessie M. Rees and Miss Alfreda Haggerty.

Respectfully yours,

G. Clyde Baldwin
Deputy.

WATER DISTRIBUTION AND HYDROMETRIC WORK

In District No. 36

1925

by G. Clyde Baldwin

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INTRODUCTION

At the annual meeting and election held in Idaho Falls, Idaho on March 2, 1925, G. Clyde Baldwin was reelected to the position of Water Master of District No. 36 and the following amended report of the resolutions committee was unanimously adopted as a program or plan to govern operations for the season:

"Your committee have to recommend that for the year 1925, 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 $2\frac{1}{2}\%$, and in an attempt to establish conditions at Heise as nearly as practicable to pre-reservoir times, that storage water shall be charged 40,000 acre-feet to cover lag and other causes of loss in return flow. Said 40,000 acre-feet to be released to direct-flow users in the Upper Snake River Valley, during July and August at such times and in such amounts, as will most nearly reestablish pre-reservoir conditions at Heise. Said 40,000 acre-feet 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 re-instated until such time as its proportionate amount of such 40,000 acre-feet 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 Lorenzo 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 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 April 15, 1898, or rights superior thereto, and shall not continue after any right with a priority date as of April 15, 1898, may be reinstated. The date of April 15, 1898, is fixed for the purpose of protecting direct flow users in what is called the lower valley from any possible harm through such practice.

VI.

The distribution of water in District No. 36 being so complex, and there being so many important matters that need consideration and adjustment, and believing that many questions that do arise have been and can be settled and litigation prevented by such a committee, we believe it desirable that the committee of nine, or some similar representative body be continued in office through the coming year.

VII.

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

VIII.

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."

Reservations included by unanimous consent

"It is agreed that this resolution is offered for adoption with the understanding that the regulations therein provided for are temporary only for the irrigation of 1925 and for the purpose of harmonizing the interests of the various water users in District No. 36 for the said irrigation season of 1925 and is not offered in the light of an admission that the plan therein proposed establishes any fixed or accurate facts touching the matters therein dealt with for future irrigation seasons but is only binding for said irrigation season of 1925. Nor shall the adoption of this resolution be considered as an estoppel for future years."

The Committee of Nine were also authorized to incur whatever expenditures were in their judgment necessary for the proper discharge of their duties and were empowered at their discretion to arrange for additional special investigations with the general understanding that economy was desired by the water users.

On March 27, 1925 the Committee of Nine again met at Idaho Falls, considered the annual water master budget and approved same in the amount of \$12,906.45 as the estimated cost of all regular work properly chargeable against normal flow water users.

The following quotations from the minutes of this meeting outline the action taken on other matters of importance:

"Moved by R. E. Shepherd seconded by W. C. Sollenberger that the chairman appoint a committee of four men with the watermaster added in an exofficio capacity to consider the matter of all special investigations not specifically acted upon at this meeting and make recommendations thereon at the next meeting of the Committee of Nine. Motion carried.

Moved by R. E. Shepherd and seconded by John E. Kelley that the watermaster be requested to install gaging stations on Bannock Jim and Lowder Sloughs and complete the installation at the new station on Snake River at Lorenzo or to the extent deemed necessary for securing dependable determinations of losses and gains between the Heise and Lorenzo gaging stations during the coming season; these instructions to include authorization of all necessary expenditures incident to their execution. Motion carried.

Chairman Hart then appointed W. O. Cotton, John E. Kelley, Eph Peterson and E. B. Darlington as members of the committee to act with the watermaster in the matter of recommendations for special investigation work.

Moved by W. C. Sollenberger and seconded by John E. Kelley that this special investigating committee be instructed to investigate at the earliest possible date the feasibility of improving conditions at the gaging station on Snake River at Neeley, Idaho by relocating the cable measuring equipment and that authority to act in this matter and approve necessary expenditures be accorded to them.

Discussion of the new contract to be executed between the U. S. Bureau of Reclamation representing Jackson Lake Stored Water Users and the State of Idaho covering stored water expenditures on account of water distribution and hydrometric work in District No. 36 during the coming year made it evident that the Committee of Nine favored the 40%-60% ratio for division of water users expenditures and otherwise favored a new contract along substantially the same lines as the one at present effective."

Water distribution and hydrometric work during 1925 were again carried on under substantially the same general plan which has been followed for several years. All work of both classes was handled from one central office located at Idaho Falls. Funds for securing hydrometric data of a wide-spread interest character were provided by the State of Idaho and the U. S. Geological Survey in accordance with the terms of a cooperative agreement applicable to the whole State; the U. S. Indian Irrigation Service paid the actual cost of a small amount of specific work done for the benefit of their Fort Hall Project* 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 Idaho Falls office was first established on a permanent basis in May 1919. In this, as well as in nearly every other year, however, changes in transmission loss schedules and other mutually agreed upon departures from previously used methods of delivery have influenced to some extent the operation of the river and the final apportionment of the water. Changes of this character not outlined in the preceding portion of this report are described in the reports of the Deputy State Commissioner of Reclamation# for former years and these should be referred to for further details or information.

The sub-committee selected on March 27 investigated conditions in the vicinity of the Keeley gaging station on April 13-14 but concluded that

*This work terminated July 31, 1925.

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

until an opportunity had been afforded to study the river at low discharge stages it would be unwise to attempt to relocate the station. At the urgent request of the Twin Falls Canal Co. another visit to this locality was made on May 29, at which time a proposal was accepted whereby this company agreed to install a new station at their own expense, upon the understanding that if its value to the district was thoroughly demonstrated the latter would reimburse them for the cost of the work. The construction was completed and records began during July but no very low river stages were experienced thereafter and consequently the real value of the new station is not yet apparent.

In order to obtain a more complete record of diversions from that section of Snake River located above American Falls than would otherwise be practicable, the canal companies of the lower valley arranged to pay the cost of employing two men to read gages during the month of May. This permitted securing actual records at each of the canals between the Heise and Blackfoot Bridge river gaging stations every other day and made it possible to prepare very dependable discharge data for the entire month.

Other early season activities comprised the installation of cable measuring equipment on the secondary river channel at Lorenzo, minor new construction, the usual work of reestablishing stations which had been temporarily discontinued for the winter and securing meter measurements for the fixation of current ratings.

Regular river riders and deputy water masters began work on June 1, the customary date for initiating the daily supervision over diversions for irrigation purposes in all seasons except those when abnormal drought conditions pertain.

PERSONNEL

The personnel engaged in the work of distribution during the season of 1925 was as follows:

G. Clyde Baldwin	Deputy State Commissioner of Reclamation, Special Deputy in charge of Jackson Lake and Twin Lakes Stored Water Delivery and Water Master of District No. 36.
C. A. McClelland	Hydrographer, Deputy Water Master and Special Deputy in charge of Henrys Lake Stored Water Delivery.
L. L. Bryan	Hydrographer
Mans H. Coffin	Hydrographer
Wendell Dawson	Hydrographer
Mrs. Bessie M. Rees	Clerk and office assistant, Idaho Falls office.
Mrs. Wilma Adams	" " " " St. Anthony "
T. W. Luetjen	Deputy Water Master, Upper Fall River division
Ernest Luetjen	" " " and Hydrographer, St. Anthony division
Leo K. Homer	" " " and Hydrographer, Teton River division
Ira Moore	" " " Heise division (June 1-July 16)
W. J. Kremer	" " " " " (July 17-Sept. 15)
Wm. Sauer	" " " Rigby division
Chas. McCurdy	" " " Idaho Falls division
Delbert Taylor	" " " Blackfoot division
D. D. Jacobs	" " " Swan Valley canals
Fred J. Anderson	" " " Minidoka Dam
W. N. McConnel	" " " and hydrographer, Milner Dam
J. M. McGinn	" " " and Gate Tender, Henrys Lake Dam
Joseph Markham	Superintendent, Jackson Lake Dam
Frances W. Herre	Forwarding Agent, Ashton, Idaho

John Empey, Wm. Sauer, Chas. McCurdy, Harold Fuqua, Mrs. Irvin Siepert, Eva Davis, J. A. Clough, A. J. Ayers, T. W. Luetjen, G. S. Gilham, D. G. Taylor, W. H. Kremer and B. F. Smith Gage Readers.

DESCRIPTIVE OUTLINE OF 1925 DISTRIBUTION

The February and March surveys conducted by Joseph Markham showed the snow conditions over the area tributary to Jackson Lake to be unusually favorable and practically assured not only the filling of that reservoir, but also a reasonably good normal flow water supply. His April report which indicated a pronounced decrease in both the depth of the snow and in its water content

MAP SHOWING PRINCIPAL STREAMS AND GAGING STATIONS

0 12 24 36
SCALE IN STATUTE MILES

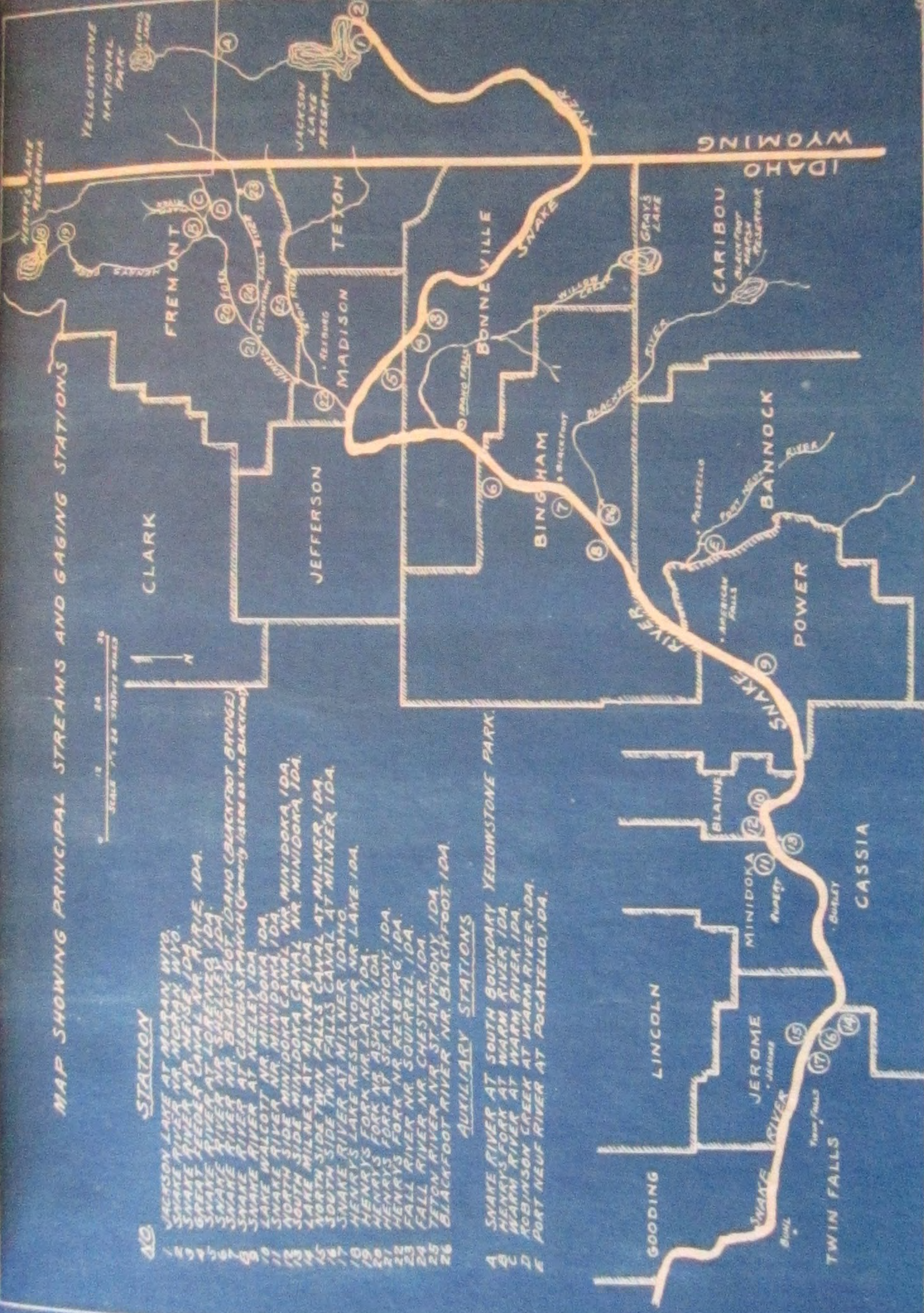


STATION

- 1 JACKSON LAKE AT MORAN WYO.
- 2 SNAKE RIVER NR. MORAN WYO.
- 3 SNAKE RIVER NR. NEISE, IDA.
- 4 GREAT FEEDER CANAL NR. VIRIE, IDA.
- 5 SNAKE RIVER AT LORENE, IDA.
- 6 SNAKE RIVER NR. SHELLEY, IDA.
- 7 SNAKE RIVER NR. BLACKFOOT, IDAHO (BLACKFOOT BRIDGE)
- 8 SNAKE RIVER AT CLOUGH'S FARM, IDAHO (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 HENRY'S LAKE RESERVOIR NR. LAKE, IDA.
- 19 HENRY'S FORK NR. LAKE, IDA.
- 20 HENRY'S FORK NR. ASHTON, IDA.
- 21 HENRY'S FORK AT ST. ANTHONY, IDA.
- 22 HENRY'S 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 HENRY'S 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.



was not so reassuring but, as this condition was apparently due to unusual warm weather and heavy ground absorption, confidence that the stream flow would be adequate for summer irrigation requirements was not seriously impaired.

Early use of water was again advised as a precautionary measure but was not practiced to any great extent. General spring rains shortly after the middle of April and again just before the middle of May resulted in soil conditions which were favorable to seed germination without extensive preliminary irrigation.

Precipitation during June and the early part of July was above normal in most portions of the Snake Valley and aided materially in supplying the moisture needed by growing crops.

The river discharge was well sustained with no excessive flood flow periods and in consequence regulation of diversions was not required until July 15 when all canals were ordered cut down to their record rights.

When the outlet gates of Jackson Lake Reservoir were shut down on October 3, 1924 the unused storage or holdover amounted to only 2,410 acre-feet. These gates remained closed until June 19, 1925 when, with a full reservoir assured, they were opened to permit a gradually increasing proportion of the normal flow to pass the dam. From June 26 when the full capacity of 847,000 acre-feet was first attained until storage was ordered released on July 15 the reservoir was held at this stage and the entire normal flow of the river was allowed to pass on downstream.

Diversions under permit and license rights and the youngest of the decreed rights were first curtailed on July 17 and by July 20 were limited to those canals with decrees having a priority date of October 7, 1905 or earlier.

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

July	30	Cut off rights having a priority date subsequent to	Mar. 26, 1903
Aug.	2	" " " " " " " " " "	Oct. 11, 1900
"	5	Reinstated rights having a priority date earlier than	Mar. 26, 1903
"	6	Cut off rights having a priority date subsequent to	Oct. 11, 1900
"	7	Reinstated rights having a priority date earlier than	Mar. 26, 1903
"	12	Cut off rights having a priority date subsequent to	Oct. 11, 1900
"	16	Reinstated rights having a priority date earlier than	Mar. 26, 1903
"	17	Cut off rights having a priority date subsequent to	Oct. 11, 1900
"	18	Reinstated rights having a priority date earlier than	Mar. 26, 1903
"	27	Cut off rights having a priority date subsequent to	Oct. 11, 1900
Sept.	1	General regulation discontinued.	

Attention should be called to the fact that both cuts and reinstatements as listed above apply particularly to upper valley canals. These, as a rule, were regulated slightly later than canals below American Falls, due largely to the attempt which was made to allow for the so-called lag as outlined in Section I of the 1925 program of operations (see page 1). The normal flow of the river was so well sustained, however, that at no time during the season did it prove practicable to accumulate anything like the prescribed amount of 40,000 acre-feet.

Decreed rights having a priority date earlier than October 11, 1900 remained valid throughout the entire season. This means that from the standpoint of irrigation water supply the season was one of the most satisfactory ever known and unquestionably the best since 1919, when the present river organization first assumed control of regulation.

The following letter which was forwarded by Mr. Baldwin under date of August 31 to each of the members of the Committee of Nine, describes conditions existing at that time and outlines the plan of operations adopted for the latter part of the season:

"During all of the time for the last two weeks the normal flow of Snake River and its tributaries has been sufficient to fill all decreed rights having a priority dated earlier than October 11, 1900 and during a considerable

portion of this time it has been sufficient to fill all rights having a priority dated earlier than March 26, 1903. In consequence, with very few minor exceptions, no regulation has been required for upper valley canals and the duties of the river riders or deputy watermasters during the period have consisted almost entirely of the daily reading of Canal gages.

At the present time the tendency for these upper valley canals is either to continue to divert less water from the river or, if the same quantity is diverted, to waste larger portions of it back to the main stream from the lower end of their systems. Crops are well advanced and it is believed that from now on the decreased use of water will be more than sufficient to offset the normal reduction in stream flow which may be expected as the season progresses.

About 4000 second-feet of storage are still being released from Jackson Lake Reservoir, almost entirely for use in the lower valley, but it seems probable that this amount can be diminished gradually and doubtless cut out altogether with the arrival of the first general rainstorm. In this event Lake Walcott would be depended upon to supply whatever storage might be required in the lower valley thereafter.

In view of the circumstances and conditions above set forth, it is thought that the services of most of the river riders can be safely dispensed with after today, thus reducing the District expenditures by a considerable amount. The hydrographers, with the exception of Mr. Pomer who will be replaced by Mr. E. Luetjen, will be retained until the end of September when, unless unusual circumstances arise, the entire organization will be reduced to the normal winter basis.

All upper valley canals will be visited by the hydrographers at intervals during September and by interpolating discharges between such visits, it will be possible to include September records in the season's report, although they will of course not be quite so accurate as those for the previous three months when daily readings were secured.

This plan of operation is similar to that followed during September of the years 1921 and 1922.

The above contemplated program has been discussed in a general way with Messrs. Hart, Peterson, Cotton, Darlington and Shepherd of your Committee, whom it was possible for me to see in person, and has received their approval. For this reason and because of the added difficulty at this season of the year of securing a full attendance at any meeting of such busy men as yourselves, it has not been deemed worth while to try to convene your Committee to take formal action approving the suggested procedure. I trust, however, that the plan above outlined will be generally acceptable to all, and wish to assure you that every effort will be made to reduce expenditures during the remainder of the season in so far as practicable without seriously impairing the collection of valuable records and the water distribution service.

At this time it appears possible to carry over at least 300,000 acre-feet of storage in Jackson Lake Reservoir and if weather conditions should prove favorable it is quite likely that a considerably larger amount may be held.

No storage has yet been drawn out of Henrys Lake during 1925 so a fine holdover there seems assured.

Should you have any comments or suggestions to make relative to the program outlined herein or any other matters pertaining to District No. 36, I hope that you will feel free at all times to communicate them to me."

On September 6th release of stored water from Jackson Lake was discontinued and on September 10, with 360,440 acre-feet still remaining in the reservoir, the gates were ordered closed to begin storage for the 1926 season.

Plate II illustrates graphically the rate at which Jackson Lake Reservoir was filled or drawn down during the period from November 15, 1914 to March 31, 1926 inclusive. All graphs are plotted on the basis of 1919 capacity tables.

WATER SUPPLY

If the comparison of annual run-off at the Moran and Neeley gaging stations, which has been included in the five preceding reports, is extended to include the year ending September 30, 1925, the data may be summarized as follows:

Station	Mean annual run-off for 22 years ending September 30, 1925	Run-off for year ending September 30, 1925.	% of mean
Moran	1,108,000	1,328,000	119.9
Neeley	6,604,000	6,290,000	95.2

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, have not been subjected to any such corrections, but represent actual totals measured at the gaging station. 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. Since annual run-off is not necessarily a true measure of the summer water supply and since great difficulty would be experienced in

computing dependable corrections for application to the Neeley record, it is probably only worth while to point out that if these corrections were made the percentage relationship between the 1925 total and the 22 year mean at the latter point, would be much more consistent with respect to that at Moran than is otherwise indicated.

Mention has already been made of the well sustained character of the summer stream flow and of the fact that the water supply was not only sufficiently adequate to afford large storage hold-overs but was also very favorable for normal flow irrigation use. Additional information concerning the latter will be found further on in the text of this report and in the tables on Plate XVII.

STORAGE VERSUS FLOOD WATER DIVERSIONS

No 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, except possibly at Henrys Lake Reservoir. The quantity of water and length of time there involved were both so small as to be almost negligible and for this reason, doubtless, as well as because of the better understanding now existing concerning these matters, no complaints were registered.

DOMESTIC WATER

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

Very few canals were shut dry during the season and stored water was at all times obtainable by any of these whose need was great enough to warrant its purchase.

1925 use of nearly 1000 acre-feet of storage from Twin Lakes was sold to the Enterprise Irrigation District by the Utah-Idaho Sugar Co. and a small amount from Jackson Lake was similarly disposed of by the New Sweden Irrigation District at prices understood to range from \$0.75 to \$1.00 per acre-foot.

MUNICIPAL WATER RIGHTS

Ground water from wells was utilized throughout the summer as a source of municipal supply for St. Anthony while the valid decreed rights of the City of Idaho Falls were at all times more than sufficient to cover actual use.

TEMPORARY TRANSFERS

Since decreed rights with a priority date earlier than October 11, 1900 were never invalidated, temporary transfers, as permitted in former years, were prohibited under the 1925 regulation.

The water master took the responsibility of authorizing a single exception by permitting part of the water belonging to the Idaho Irrigation District and ordinarily diverted through the Boomer Canal to be drawn through the Eagle Rock and Willow Creek canal of the Progressive Irrigation District after the Boomer flume across Willow Creek was washed out on the night of July 26. This was considered an emergency situation where failure to permit the transfer might have resulted in serious crop damage before the structure could have been replaced.

EXCHANGE OF NORMAL FLOW FOR STORAGE

The only exchange of normal flow for storage practiced during the season was that made necessary in order to deliver the Twin Lakes storage to the Enterprise Irrigation District whose canal diverts from Fall River. In this case the actual delivery was from normal flow but stored water was released to the river in sufficient amount to compensate for the depletion of the former.

LITIGATION

After a hearing before the State Commissioner of Reclamation at Rigby, Idaho on February 13, a permanent transfer or change of both point of diversion and use was finally granted on March 14, 1925, under which 40 second-feet of water originally decreed to lands served by the Long Island Canal system, with priorities ranging from June 1, 1887 to June 1, 1889, became a part of the rights of the Farmers Friend Irrigation Company. While a number of protests had been filed and objections made to the granting of this transfer the Commissioner held that all were based upon the theory that the right to the use of the water had been lost through abandonment---something not within his province as an administrative officer, to determine.

Thereafter legal action was initiated by the protesting canal companies and irrigation districts, in which cancellation or annulment of the transfer order was sought. The case was tried in the Court of the Ninth Judicial District at Rigby, Idaho on July 9, 1925 following which a decision was rendered by Geo. W. Edgington, the presiding judge, denying the desired action and sustaining the validity of the transfer. The plaintiffs, through their attorney James R. Bothwell, thereupon appealed from this decision to the Supreme Court of the State where the matter now rests.

The history of this case has been thus briefly summarized because of its probable importance as a test to determine the legality of all similar water transfers.

On Nov. 28, 1925 the State Supreme Court rendered an opinion denying a rehearing and in effect sustaining the decision of the District Court which refused the Fall River Irrigation Company authority to have its water right priority date advanced from June 1, 1889 to June 1, 1885 (See page 19 of report on Water Distribution and Hydrometric Work in District No. 36 for 1923).

No other court action of general importance to the water users of this

District was recorded during the past year.

GROS VENTRE LANDSLIDE

On June 23 a sudden and extensive landslide dammed Gros Ventre River at a point about two miles above Kelly, Wyoming. For several days the entire stream flow below this point was cut off, while the water impounded in the basin above rose rapidly at first, then more gradually, to form a new lake about five miles long and covering an area of approximately 2,000 acres. As the water pressure above the natural dam increased, seepage developed on the downstream side and grew larger in amount until about the latter part of July when a sort of equilibrium was established and the outflow equalled the inflow. Thereafter, as the normal stream flow decreased, the elevation of the water surface in the new lake also lowered slightly. At no time was the natural barrier of earth, trees and rock actually overtopped by the water although it seems possible that there may be a real overflow during the 1926 flood season.

This catastrophe could hardly have occurred at a more favorable time with respect to its effect upon the normal flow of Snake River. In the neighborhood of 2,000 second-feet were held back when the slide took place but the remaining supply was still ample to care for all needs of Idaho users. By the time the water was really needed at lower river points the seepage outflow was almost equivalent to the normal stream discharge and soon afterwards actually exceeded this amount, as evidenced by the gradually decreasing head above the dam.

Unless 1926 flood water conditions materially change the situation, therefore, Snake River water users will be benefitted rather than harmed as a result of the creation of this natural reservoir which has been so appropriately named "Sudden Lake".

CANAL DELIVERIES

The total amount diverted daily through each canal heading either in the

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM SNAKE RIVER FOR MAY 1928

NAME OF CANAL	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	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	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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[illegible]

[illegible]

south fork or main river during the period from May 1 to September 30, 1925 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 been observed mean discharges have been recorded. Daily summaries showing the total diversions between river gaging stations have also been included.

River riders were employed continuously from June 1 to August 31 inclusive and for this period records are based upon daily readings at each station. Data for May depend upon gage heights or estimates made every alternate day while the September discharges are computed from less regular and generally less frequent readings with interpolations or estimates used for intervening dates.

No data were secured for the Shoppard canal during May and nothing was recorded for the Morgan and Rosten canals after the small river channel on which their headings are located was dammed off on July 16, following which only waste water from adjacent canal systems was utilized.

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 represent 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
54	Blackfoot (Cloughs)	Day ending at 10 a.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 six 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.

RIVER GAGING STATIONS FROM JACKSON LAKE WYOMING TO MILNER IDAHO

BLACK RIVER GAGING STATIONS FROM JACKSON LAKE WYOMING TO MILNEBAY										NS MINC		DISCHARGE		NS MINC		DISCHARGE						
BLACK RIVER	CUM CORR LOSS APP STD	BLACK RIVER S-M CLOUGH		CLOUGHS			B-C DATE		NEELEY			C-N DATE		LAKE WALCOTT			DISCHARGE					
		GAGE DISC	BLACK CAN	TH BAL	GAGE	DISCH	STD	NOR	GAIN	1925	GAGE	DISCH	STD	NOR	GAIN	1925	GAGE	CAPACT	DRAFT	GAGE	DISCHARGE	
1					6.61	8480			1412	6.92	11870			3390	45.18	97350	-666	9.41	1490	130	632	2182
2					6.92	9440			3	7.15	12800			3360	45.32	99040	-852	9.20	1440	647	735	2175
3					7.24	10500			4	7.40	13850			3350	45.44	100490	-731	9.12	1420	665	782	2202
4					7.73	12230			5	7.73	15280			3050	45.48	100970	-242	9.32	1470	687	843	2313
5					(8.07)	13510			6	8.03	16630			3120	45.46	100730	-121	9.33	1470	685	893	2363
6	7.50	505				14480			7	8.10	16950			2470	45.53	101570	-424	9.40	1490	687	930	2420
7	7.0	416				15450			8	8.28	17790			2340	45.55	101810	-121	9.39	1490	687	950	2440
8	6.95	407	15437			16420			9	8.58	19210			2190	45.62	102660	-429	9.39	1440	687	950	2440
9	6.95	407	16867			19030			10	8.97	21140			2110	45.41	100130	-1276	9.20	1440	687	901	2341
10	6.80	382	18952			18770			11	9.08	21700			2930	45.34	99280	-429	8.65	1300	677	815	2115
11	7.70	541	18921			16830			12	8.72	19900			3070	45.45	100610	-670	8.68	1300	678	818	2118
12	7.50	505	17275			16380			13	8.58	19210			2830	45.47	100850	-121	8.71	1310	665	782	2092
13	7.20	451	16811			16090			14	8.57	19170			3080	45.46	100730	-60	8.67	1300	647	714	2014
14	6.50	330	16690			15930			15	8.52	18930			3000	45.54	101690	-484	8.56	1270	620	667	1937
15	6.30	293	16283			16580			16	8.63	19460			2880	45.62	102660	-489	8.27	1200	605	631	1831
16	6.15	260	16900			17120			17	8.72	19900			2780	45.64	102900	-121	8.28	1210	605	631	1841
17	5.97	214	17324			18050			18	8.92	20890			2840	45.63	102780	-60	8.28	1210	607	636	1846
18	6.32	297	18257			18680			19	9.02	21390			2710	45.58	102170	-308	8.28	1210	630	692	1902
19	6.40	312	18842			18980			20	9.03	21440			2460	45.58	102170	-0	8.26	1200	630	692	1892
20	6.15	260	19140			19650			21	9.15	22060			2410	45.63	102780	-308	8.27	1200	631	694	1894
21	5.55	126	19676			20550			22	9.28	22730			2180	45.58	102170	-308	8.27	1200	636	707	1907
22	5.40	102	20432			20720			23	9.57	24250			1580	45.60	102410	-121	8.26	1200	644	727	1927
23	5.73	160	22230			22670			24	9.86	25820			1350	45.57	102050	-182	8.36	1230	666	785	2015
24	5.8	175	24035			24470			25	9.94	26260			2540	45.47	100850	-605	8.95	1370	693	859	2229
25	5.70	154	23204			23720			26	9.69	24900			2930	45.47	100850	-0	9.38	1480	693	859	2425
26	5.52	121	21551			21970			27	9.40	23350			2630	45.40	100010	-424	9.37	1480	693	859	2454
27	5.30	88	20338			20720			28	8.95	21040			1980	45.58	102170	-1089	9.39	1490	697	997	2487
28	4.80	40	19830			19060			29	8.81	20340			2250	45.63	102780	-308	9.40	1490	697	1020	2510
29	4.60	26	18506			18090			30	8.72	19900			2100	45.61	102540	-121	9.38	1480	697	1040	2520
30	4.30	10	17170			17800			31	8.80	20290			2070	45.65	103020	-242	9.40	1490	697	1050	2540
31	6.52	334	17784			18220			32	9.17	22160			1770	45.65	103020	-0	9.40	1490	697	1050	2540
32	6.65	356	18726			19270			33	9.05	21540			2080	45.54	101690	-671	9.28	1460	697	1050	2540
33	6.75	373	19613			20080			34	8.58	19210			2650	45.46	100730	-484	9.02	1390	697	1050	2540
34	6.08	242	18372			18890			35	8.29	17830			2280	45.58	102170	-726	8.97	1380	697	1050	2540
35	5.93	204	16684			16930			36	8.10	16950			2610	45.72	103860	-852	8.74	1320	697	1050	2540
36	5.99	219	14699			15220			37	7.95	16260			2950	45.90	106030	-1094	8.56	1270	697	1050	2540
37	6.02	226	13606			14000			38	7.86	15860			2730	45.94	106510	-242	8.57	1280	697	1050	2540
38	6.18	267	13097			13530			39	7.67	15020			2750	45.90	106030	-242	8.54	1270	697	1050	2540
39	7.20	451	12761			13110			40	7.52	14370			2920	45.92	106270	-121	8.52	1260	697	1050	2540
40	7.02	419	12329			12100			41	7.27	13300			2890	45.94	106510	-121	8.53	1270	697	1050	2540
41	6.74	371	11321			10440			42	7.09	12560			2860	45.95	106630	-60	8.53	1270	697	1050	2540
42	7.26	462	10382			9800			43	6.98	12110			2760	45.96	106750	-61	8.56	1270	697	1050	2540
43	6.85	390	9870			9350			44	6.77	11270			2830	45.87	105670	-544	8.56	1270	697	1050	2540
44	6.25	283	10103			8570			45	6.62	10700			2760	45.86	105550	-60	8.18	1180	697	1050	2540
45	5.88	193	9543			7880			46	6.61	10660			2700	45.92	106270	-363	7.68	1070	697	1050	2540
46	5.38	100	8610			8360			47	6.69	10960			2820	45.98	106990	-363	7.28	1090	697	1050	2540
47	5.31	90	7760			8210			48	6.24	9280			2800	45.99	107110	-60	7.92	1120	697	1050	2540
48	5.10	66	7696			7860			49	6.16	9000			2600	46.08	108240	-691	9.06	1400	697	1050	2540
49	5.53	123	8233			8360			50	6.52	10320			2640	46.09	108360	-60	9.10	1410	697	1050	2540
50	5.61	137	8277			8210			51	6.24	9280			2430	45.97	106870	-545	8.70	1310	697	1050	2540
51	5.40	102	6922			6850			52	6.16	9000			2600	46.08	108240	-691	9.06	1400	697	1050	2540
52	4.50	20	6120			6400			53	6.52	10320			2470	46.09	108360	-60	9.10	1410	697	1050	2540
53	4.60	26	7636			7910			54	6.27	7910			2410	46.09	108360	-60	9.10	1410	697	1050	2540

55 MIN C W5+55 MIN CAN				MIN		MINIDOKA				N-M		DATE		PALAT		N5TFCAN		PA+NSITFCAN		55TF CANAL		MILLIFT CAN		MIL			
GAGE	DISCH	TOTAL	STD	NOR	THBAL	GAGE	DISCH	5TD	NOR	LOSS	1925	GAGE	GAGE	DISC	DISCH	TOTAL	5TD	NOR	GAGE	DISCH	5TD	NOR	GAGE	DISC	STD	NOR	
430	692	2182			9022	790	9480			- 458	May 4	10.50	1.94	54	8.32	2690	2744			8.46	2400			4.0	23		4336
447	735	2175			9773	823	10480			- 707	5	10.60	1.95	55	8.50	2790	2845			9.14	2770			1.28	50		4842
465	782	2202			10917	857	11580			- 663	6	10.96	1.96	55	8.80	2950	3005			9.94	2880			1.51	52		5645
487	843	2313			12725	906	13330			- 605	7	10.66	1.94	54	8.65	2870	2924			9.28	2840			1.87	50		7514
505	893	2363			14388	924	14030			358	8	10.94	1.94	54	8.77	2940	2994			9.58	3020			1.90	51		7766
525	950	2440			14106	939	14630			- 524	9	10.96	1.94	53	8.79	2950	3003			9.83	3160			1.90	51		8416
525	950	2440			15229	970	15910			- 681	10	10.96	1.93	52	8.78	2950	3002			9.87	3190			1.90	51		7667
508	901	2341			16341	1010	17610			- 1269	11	10.93	1.94	53	8.76	2940	2993			H.D.	2310			1.93	52		7667
477	815	2115			20075	1067	20120			- 45	12	10.94	1.94	53	8.76	2950	3003			H.D.	2010			1.93	52		12155
478	818	2118			20014	1035	18700			1314	13	10.92	1.93	52	8.77	2960	3012			9.52	2980			1.90	42		1504
478	818	2118			17112	971	15950			1162	14	10.92	1.93	52	8.76	2960	3012			9.85	3170			1.90	42		7726
465	782	2092			16997	993	16880			117	15	10.91	1.93	52	8.75	2960	3012			9.76	3120			1.93	80		10668
439	714	2014			17216	1005	17400			- 184	16	10.90	1.93	52	8.75	2970	3022			9.77	3130			1.93	80		11181
420	667	1937			16509	993	16880			- 371	17	10.92	1.93	52	8.76	2980	3032			9.78	3140			1.93	80		10628
405	631	1831			17140	1003	17310			- 170	18	10.94	1.93	52	8.77	3000	3052			9.78	3140			1.93	82		11036
405	631	1841			17938	1035	18700			- 762	19	10.93	1.94	53	8.76	3000	3053			9.77	3140			1.93	82		12425
407	636	1846			19104	1052	19450			- 346	20	10.93	1.93	52	8.75	3000	3052			9.77	3150			1.93	82		13166
430	692	1902			19796	1067	20120			- 324	21	10.92	1.93	52	8.75	3000	3052			9.77	3160			1.93	84		13824
430	692	1892			19548	1062	19890			- 342	22	10.94	1.93	52	8.76	3010	3062			9.78	3170			1.93	84		13574
431	694	1894			19858	1081	20740			- 882	23	10.92	1.93	52	8.77	3020	3072			9.78	3180			1.93	86		14400
436	707	1907			21131	1119	22460			- 1329	24	10.94	1.93	52	8.77	3030	3082			9.78	3190			1.93	86		16028
444	727	1927			22202	1142	23510			- 1308	25	10.94	1.93	52	8.75	3030	3082			9.77	3190			1.93	86		17154
466	785	2015			23987	1168	24710			- 723	26	10.94	1.93	52	8.75	3030	3082			9.77	3190			1.93	88		18350
493	859	2229			24636	1145	23650			986	27	10.91	1.93	52	8.75	3030	3082			9.83	3230			1.93	88		17249
523	945	2425			22475	1092	21240			1235	28	10.97	H.D.	44	8.76	3040	3084			9.92	3280			1.93	88		16028
535	974	2454			21320	1050	19360			1960	29	10.88	1.93	52	8.73	3020	3072			9.98	3320			1.93	88		14049
541	997	2487			17464	981	16370			1094	30	10.94	1.93	52	8.76	3040	3092			10.02	3340			1.93	88		11765
548	1020	2510			17522	1000	17180			342	31	10.96	1.94	53	8.76	3040	3093			10.01	3340			1.93	88		84081
555	1040	2520			17508	1020	18040			- 449	Jun 1	10.95	1.94	53	8.75	3030	3083			10.01	3340			1.93	88		73267
559	1050	2540			18500	1043	19050			- 532	2	10.94	1.94	53	8.75	3090	3083			9.95	3300			1.93	88		65361
560	1050	2540			20421	1074	20430			- 550	3	10.93	1.95	53	8.72	3020	3073			9.91	3280			1.93	88		74361
525	950	2410			19783	1022	18130			-	4	10.92	1.95	53	8.70	3010	3063			9.83	3230			1.93	88		70281
490	851	2241			16214	943	14790			1653	5	10.92	1.96	54	8.71	3010	3064			9.80	3210			1.93	88		54192
504	890	2270			14742	916	13710			1424	6	10.94	1.96	54	8.73	3020	3074			9.82	3220			1.93	88		45552
513	916	2236			13687	895	12920			1032	7	10.92	1.96	54	8.72	3020	3074			9.82	3220			1.93	88		40092
507	899	2167			13859	915	13680			767	8	10.96	1.96	54	8.73	3020	3074			9.82	3220			1.93	88		41432
500	879	2159			13961	902	13180			179	9	10.91	1.96	53	8.72	3020	3073			9.58	3080			1.93	88		47062
497	871	2141			12760	871	12060			781	10	10.95	1.96	53	8.71	3010	3063			9.44	3000			1.93	88		35462
497	871	2131			12108	843	11120			708	11	10.94	1.96	53	8.72	3020	3073			10.25	3480			1.93	88		26872
498	873	2143			11097	817	10300			988																	

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

MINIDOKA			N-M		DATE	PALAT		N5TF CAN		PA + N5TF CAN		55TF CANAL			MILL LIFT CAN			MILNER			M-M
DISCH	STD	NOR	LOSS	1925		GAGE	DISC	GAGE	DISCH	TOTAL	STD	NOR	GAGE	DISCH	STD	NOR	GAGE	DISCH	STD	NOR	GAIN
9480			- 458	May 4	1050	194	54	8.32	2690	2744			8.46	2400			4336	9.94	5480		1144
9480			- 707	5	1068	195	55	8.50	2790	2845			9.14	2770			4842	9.51	5030		188
11580			- 663	6	1096	196	55	8.80	2950	3005			9.34	2880			5645	11.11	6770		1125
1330			- 605	7	1066	194	54	8.65	2870	2924			9.28	2840			7514	12.45	8220		706
14030			- 558	8	1094	194	54	8.77	2940	2994			9.58	3020			7966	12.24	8010		44
14630			- 524	9	1096	194	53	8.79	2950	3003			9.83	3160			8416	13.13	9060		644
15910			- 681	10	1096	193	52	8.78	2950	3002			9.87	3190			9667	14.48	10990		1323
17610			- 1269	11	1093	194	53	8.76	2940	2993			H.D.	2310			12255	H.D.	14490		2235
20120			- 45	12	1094	194	53	8.76	2950	3003			H.D.	2010			15049	H.D.	15460		411
18700			1314	13	1092	193	52	8.77	2960	3012			9.52	2980			12666	14.10	10390		-2276
15950			1162	14	1092	193	52	8.76	2960	3012			9.85	3170			7726	13.88	10060		334
16880			117	15	1091	193	52	8.75	2960	3012			9.76	3120			10668	15.13	12120		1452
17400			- 184	16	1090	193	52	8.75	2970	3022			9.77	3130			11181	14.68	11330		142
16880			- 371	17	1092	193	52	8.76	2980	3032			9.78	3140			10628	14.67	11310		682
17310			- 170	18	1094	193	52	8.77	3000	3052			9.78	3140			11036	15.47	12750		1714
18700			- 762	19	1093	194	53	8.76	3000	3053			9.77	3140			12425	15.93	13630		1205
19450			- 346	20	1093	193	52	8.75	3000	3052			9.77	3150			13166	16.18	14190		964
20120			- 324	21	1092	193	52	8.75	3000	3052			9.77	3160			13824	16.08	13930		106
19890			- 342	22	1094	193	52	8.76	3010	3062			9.78	3170			13574	16.26	14290		716
20740			- 882	23	1092	193	52	8.77	3020	3072			9.78	3180			14400	17.04	15880		1480
22460			- 1329	24	1094	193	52	8.77	3030	3082			9.78	3190			16098	17.62	17120		1022
23510			- 1308	25	1094	193	52	8.75	3030	3082			9.77	3190			17154	18.10	18200		1046
24710			- 723	26	1094	193	52	8.75	3030	3082			9.77	3190			18350	17.97	17900		- 450
25650			986	27	1091	193	52	8.75	3030	3082			9.83	3230			17249	16.92	15630		- 1619
21240			1235	28	1097	H.D.	44	8.76	3040	3084			9.92	3280			14809	16.10	13970		- 839
19360			1960	29	1088	193	52	8.73	3020	3072			9.98	3320			12887	14.16	10480		-2407
16370			1094	30	1094	193	52	8.76	3040	3092			10.02	3340			7852	13.77	9910		58
17180			342	31	1096	194	53	8.76	3040	3093			10.01	3340			10660	14.78	11500		840
17950			- 449	Jun 1	1095	194	53	8.75	3030	3083			10.01	3340			11439	14.76	11460		21
18040			- 532	2	1094	194	53	8.75	3030	3083			9.95	3300			11569	15.08	12030		461
19050			- 550	3	1093	195	53	8.72	3020	3073			9.91	3280			12608	16.20	14170		1562
20430			- 9	4	1092	195	53	8.70	3010	3063			9.83	3230			14049	15.75	13280		- 769
18130			1653	5	1092	196	54	8.71	3010	3064			9.80	3210			11768	13.21	9160		-2608
14790			1424	6	1094	196	54	8.73	3020	3074			9.82	3220			8408	12.50	8300		- 108
13710			1032	7	1092	196	54	8.72	3020	3074			9.82	3220			7326	11.16	6830		- 496
12920			767	8	1096	196	54	8.73	3020	3074			9.82	3220			6536	12.08	7840		1304
13680			179	9	1091	196	53	8.72	3020	3073			9.58	3080			7438	11.88	7620		182
13180			781	10	1095	196	53	8.71	3010	3063			9.44	3000			7028	10.85	6480		- 548
12060			708	11	1094	196	53	8.72	3020	3073			10.25	3480			5419	9.47	4990		- 429
11120			988	12	1092	H.D.	49	8.71	3010	3059			10.18	3430			4555	8.60	4080		- 475
10300			797	13	1095	196	53	8.71	3010	3063			9.72	3140			4009	8.53	4010		1
10420			- 64	14	1092	196	53	8.70	3010	3063			9.71	3130			4143	9.39	4900		757
10920			411	15	1090	197	54	8.69	3000	3054			9.64	3070			4706	8.63	4110		- 596
9720			399	16	1094	198	54	8.68	3000	3054			9.59	3030			3546	7.78	3260		- 286
8780			223	17	1090	198	53	8.69	3000	3053			9.47	2950			2687	6.85	2360		- 327
8380			71	18	1095	198	53	8.71	3010	3063			9.33	2870			2358	7.22	2110		352
8900			- 216	19	1095	198	53	8.70	3010	3063			9.31	2860			2897	8.28	3760		863
9540			- 160	20	1096	198	53	8.71	3010	3063			9.31	2860			3547	7.40	2880		- 667
8010			1107	21	1091	H.D.	49	8.65	2980	3029			9.33	2870			2033	5.02	868		- 1165
6180			335	22	1078	198	53	8.57	2940	2993			9.31	2860			232	4.04	386		154
6710			- 769	23	1098	198	53	8.75	3030	3083			9.68	3070			457	H.D.	2400		1943
9900			-2070	24	1096	198	53	8.72	3020	3073			9.76	3120			3615	10.88	6520		2905

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

1925 DISTRIBUTION WATER DISTRICT NO 36

DATE	JACKSON LAKE			MORAN			TWIN LK DATE		HEISE						MORAN-HEISE			LORENZO		H-L		
	GAGE	CAPAC FT	DRAINF	GAGE	DISC	STD	NOR	DISC	MORAN	1925	GAGE	DISCH	RILEY	STD	TLK	NOR	TOT GN	155D LTL	GNNOR		STD	TLK
1925																						
June 20	68.18	826100		H.D.	3310					June 21	6.89	20380	20416				17106					
21	68.50	834250		H.D.	3760					22	7.15	21560	21596				17836					
22	68.72	839840		H.D.	5920					23	7.49	23090	23126				17206					
23	68.82	842390		6.60	6630					24	7.56	23420	23457				16827					
24	68.90	844420		6.57	6570					25	7.81	22280	22316				15746					
25	68.94	845440		6.54	6520					26	7.27	22100	22136				15616					
26	68.95	845700		6.57	6570					27	7.27	22100	22136				15566					
27	68.96	845950		6.40	6250					28	7.11	21380	21416				15166					
28	69.00	847000		6.32	6100					29	7.04	21060	21095				14995					
29	69.04	848000		6.52	6480					30	7.28	22140	22176				15696					
30	69.00	847000		H.D.	8140					July 1	7.56	23420	23456				15316					
July 1	68.97	846210		H.D.	6690					2	7.16	21600	21636				14946					
2	68.97	846210		5.80	5360					3	6.74	19710	19725				14365					
3	68.98	846460		5.64	5090					4	6.64	19270	19284				14194					
4	69.00	847000		5.47	4800					5	6.54	18830	18842				14042					
5	69.09	849280		5.09	4200					6	6.43	18340	18351				14151					
6	69.01	847230		6.24	6160					7	6.68	19440	19452				13292					
7	68.98	846460		5.55	4940					8	6.38	18120	18131				13191					
8	69.01	847230		4.70	3620					9	6.03	16590	16600				12980					
9	69.03	847740		4.53	3380					10	5.81	15640	15650				12270					
10	69.01	847230		4.79	3750					11	5.79	15560	15570				11820					
11	68.99	846720		4.69	3610					12	5.65	14960	14969				11359					
12	69.00	847000		4.29	3060					13	5.44	14070	14077				11017					
13	69.00	847000		4.21	2950					14	5.35	13690	13721				10771					
14	69.01	847230		4.07	2770					15	5.22	13140	13166				10396					
15	68.99	846720		4.26	3020	257	2763			16	5.30	13480	13499	251			10479	6	10485	242		
16	68.76	840860		H.D.	5620	2954	2666			17	5.76	15430	15453	2880			9907	74	9907	2745	135	
17	68.44	832720		6.52	6690	4104	2586			18	6.00	16460	16482	4001			9895	103	9895	3857	144	
18	68.07	823310		6.84	7330	4744	2586			19	6.03	16590	16615	4625			9404	119	9404	4486	139	
19	67.64	812430		7.13	7930	5485	2445			20	6.14	17070	17093	5348			9300	137	9300	5188	160	
20	67.20	801320		7.18	8040	5601	2439			21	6.08	16800	16825	5461			8925	140	8925	5297	164	
21	66.80	791250		6.99	7640	5077	2563			22	6.02	16550	16573	4950			9060	127	9060	4802	148	
22	66.39	780970		6.99	7640	5183	2457			23	5.94	16200	16223	5053			8713	130	8713	4901	152	
23	65.99	770940		6.85	7350	5057	2293			24	5.81	15640	15663	4931			8439	126	8439	4783	148	
24	65.56	760230		6.87	7390	5400	1990			25	5.68	15080	15103	5265			7848	135	7848	5107	158	
25	65.12	749270		6.86	7370	5526	1844			26	5.58	14660	14685	5388			7453	138	7453	5226	162	
26	64.66	737880		6.87	7390	5742	1648			27	5.53	14450	14473	5598			7227	144	7227	5430	168	
27	64.17	725760		7.00	7660	6110	1550			28	5.50	14320	14345	5957			6838	153	6838	5778	179	
28	63.67	718460		7.22	8120	6201	1919			29	5.56	14370	14393	6046			6628	155	6628	5865	181	
29	63.14	700440		7.45	8620	6564	2056			30	5.66	15000	15024	6400			6553	164	6553	6208	192	
30	62.58	686760		7.53	8800	6898	1902			Aug 1	5.67	15040	15063	7069			6506	172	6506	6524	19	202
31	61.99	672380		7.64	9040	7250	1790			2	5.67	15130	15153	6907			6184	181	6184	6857	19	212
Aug 1	61.41	658530		7.66	9080	7084	1996			3	5.67	15130	15153	6907			6231	177	6231	6665	19	242
2	60.87	645280		7.53	8800	6579	2221			4	5.68	15080	15103	6415			6447	164	6447	6146	19	269
3	60.38	633490		7.15	7980	5944	2036			5	5.52	14400	14422	5795			6567	149	6567	5575	23	220
4	59.92	622440		6.86	7370	5571	1799			6	5.33	13610	13632	5432			6371	132	6371	5253	29	179
5	59.48	611930		6.62	6890	5299	1591			7	5.17	12940	12962	5167			6170	132	6170	4981	33	186
6	59.04	601420		6.55	6750	5299	1451			8	5.05	12440	12462	5167			5810	132	5810	5002	33	165
7	58.61	591220		6.43	6520	5142	1378			9	4.98	12160	12182	5013			5757	129	5757	4858	33	155
8	58.17	580780		6.48	6610	5263	1347			10	4.95	12040	12061	5131			5549	132	5549	4977	33	154
9	57.69	569450		6.66	6970	5712	1258			11	5.05	12440	12462	5569			5601	143	5601	5374	33	195
10	57.21	558140		6.71	7070	5703	1367				5.09	12610	12633	5560			5672	143	5672	5310	32	250

DAILY SUMMARY OF DATA AT AND BETWEEN SNAKE RIVER GAGING

DAILY SUMMARY OF DATA AT AND BETWEEN SNAIL										WOODVILLE										HEISE-WOODVILLE										BLACK FOOT BRIDGE										WOOD - BLACK									
REXBURG		HEISE RILEY RETURNS		DATE		DIV HEISE-WOOD				WOOD		WOODVILLE				LOR-WOOD		HEISE-WOODVILLE				DIV WOOD		BLACK				BLACK FOOT BRIDGE				WOOD - BLACK																	
AGE	DISC	1925	1926	TOTAL	STD	TLK	NOR	TH BAL	GA6E	DISCH	STD	NOR	L55TD	L7TL	TOT6N	L5TD	L7TL	GNOR	TH BAL	DISCH	STD	NOR	TOT6N	L5TD	GNOR	STD	NOR	TOT6N	L5TD	GNOR	STD	LOSS																	
182	3760	24 176	6022	9712				14464	939	14900					436				3761	11139	10650				- 489																								
20	3040	25436	23	9646				15790	987	16770					980				3756	13014	12200				- 814																								
98	3920	27046	24	9947				17099	1026	18310					1211				3797	14513	13880				- 633																								
124	4180	27637	25	9930				17307	1057	19550					1843				3520	16030	15160				- 870																								
204	3980	26296	26	9979				16317	1031	18510					2193				3492	15018	14270				- 748																								
288	3770	25906	27	9972				15934	1022	18150					2216				3586	14564	14020				- 544																								
584	3780	25916	28	9845				16071	1024	18230					2159				3582	14648	14180				- 468																								
580	3740	25156	29	9680				15476	1015	17870					2394				3535	14335	13810				- 525																								
87	3810	24905	30	9271				15634	1011	17710					2076				3516	14194	13940				- 254																								
129	4230	26406	Jul 1	9159				17247	1060	19670					2423				3591	16079	15820				- 259																								
151	4450	27906	2	8835				19071	1113	21790					2719				3542	18248	17840				- 408																								
260	4540	26176	3	7949				18227	1103	21390					3163				3307	18083	17460				- 623																								
253	4470	24195	4	7192				17003	1066	19910					2907				3075	16835	16440				- 395																								
143	4310	23654	5	6671				16983	1058	19590					2607				2880	16710	16440				- 270																								
137	4310	23152	6	6408				16744	1050	19270					2526				2767	16503	16210				- 293																								
177	4720	29071	7	6172				16899	1048	19190					2291				2824	16366	16230				- 136																								
101	5150	24602	8	6224				18378	1078	20390					2012				2887	17503	17250				- 253																								
273	4850	22981	9	6226				16755	1037	18750					1995				2836	15914	15410				- 504																								
148	4590	21190	10	7007				14183	972	16190					2007				2943	13247	13040				- 207																								
205	5190	20840	11	7442				13398	922	14240					842				2252	11988	12080				- 92																								
158	4700	20270	12	7531				12739	886	12870					131				2177	10673	10660				- 33																								
300	4110	19079	13	8352				10727	842	11210					483				2337	8873	8590				- 283																								
551	3620	17697	14	8687				9010	793	9430					420				3257	6173	6130				- 43																								
503	3130	16851	15	8233				8618	767	8520					- 98				3331	5189	5050				- 139																								
151	1750	14916	16	7690				7226	746	7790					564				3253	4537	4300				- 237																								
115	1470	14969	17	7617				7352	752	8000					648				658	3299	4701				- 251																								
399	1340	16793	18	7486				9307	814	10180					873				1022	3384	6796				- 346																								
187	1250	17732	19	7528				10204	837	11030					826				987	3352	7678				- 298																								
169	1130	17745	20	7536				10209	842	11210					1001				1162	3372	7838				- 248																								
156	1040	18133	21	7996				10137	843	11250					1113				1299	3328	7922				- 172																								
158	1050	17875	22	8104				9771	835	10960					1189				1379	3325	7635				- 85																								
175	1160	17733	23	8113				9620	832	10840					1220				1392	3276	7564				- 44																								
182	1210	17433	24	7752				9681	836	10990					1309				1486	3235	7755				- 45																								
103	1370	17033	25	7689				9344	828	10700					1356				1528	3169	7531				- 39																								
195	1320	16423	26	7583				8840	815	10220					1380				1564	3150	7070				- 10																								
178	1210	15895	27	7822				8073	798	9610					1537				1725	3054	6556				- 106																								
163	1130	15603	28	7874				7729	775	8800					1071				1266	3155	5645				- 5																								
148	1040	15385	29	7968				7417	763	8380					963				1171	3161	5219				- 41																								
142	1010	15603	30	8005				7598	767	8520					922				1132	3143	5377				- 43																								
142	1020	16044	31	8080				7964	775	8800					0				1060	3111	5689				- 51																								
142	1030	16183	Aug 1	7921				8262	783	9080					0				1053	3079	6001				- 1																								
142	1040	16103	2	7747				8356	790	9320					0				1211	3049	6271				- 109																								
143	1040	16173	3	7760				8433	798	9610					0				1452	3012	6598				- 112																								
154	1120	16223	4	7633				8590	805	9860					0				1571	2947	6713				- 37																								
167	1220	15642	5	7459				8183	795	9500					0				1566	2890	6610				- 0																								
177	1290	14922	6	7170				7752	777	8860					0				1314	2861	5999				- 41																								
173	1270	14232	7	7015				7217	762	8340					0				1336	2886	5454				- 64																								
164	1210	13672	8	7056				6616	748	7860					0				1435	2820	5040				- 150																								
152	1130	13312	9	6773				6692	6539	737					0				1131	2818	4672				- 51																								
148	1110	13171	10	6933				6834	6238	736					0				1392	2816	4634				- 43																								
147	1100	13562	11	6902				6809	6660	743					0				1254	2903	4787				- 139																								
150	1120	13753	12	6903				6702	6850	748					0				1289	2830	5030				- 253																								

RIVER GAGING STATIONS FROM JACKSON LAKE WYOMING TO MILNER IDAHO

1- BLACK	CUM LOSS APPD STD	BLACK RIVER		S-M CLOUGH	CLOUGHS			B-C		NEELEY				C-N	DATE	LAKE WALCOTT			NSMNC	SSMINC				
		GAGE	DISC		BLACK	CAN	TH BAL	GAGE	DISCH	STD	NOR	GAGE	DISCH			STD	NOR	GAGE			CAPACFT	DRAFT	GAGE	DISCHARGE
1570 GNDR		4.62	27	10677	16	10661	7.22	10950			289	7.25	13220		2270	Jun 24	46.01	107360	504	9.28	1460	5.56	10	
		5.00	56	12256	19	12237	7.65	12500			263	7.62	14800		2300	25	45.98	106990	186	9.39	1490	5.50	10	
		4.80	39	13919	18	13901	8.07	14110			209	7.90	16040		1930	26	45.89	105910	545	9.38	1480	5.42	10	
		5.10	65	15225	23	15202	8.38	15340			138	8.18	17320		1980	27	45.84	105310	303	9.38	1480	5.48	10	
		4.90	47	14317	22	14295	8.12	14310			15	8.04	16670		2360	28	45.95	106630	-	666	9.39	1490	5.57	10
		4.48	18	14038	21	14017	8.08	14150			133	7.96	16310		2160	29	45.99	107110	-	242	9.42	1490	5.64	10
		5.30	87	14267	21	14246	8.15	14420			174	8.02	16580		2160	30	45.94	106510	303	9.40	1490	5.63	10	
		5.37	95	13905	21	13884	8.06	14070			186	7.97	16360		2290	Jul 1	45.98	106990	-	242	9.41	1490	5.64	10
		5.51	116	14056	21	14035	8.10	14230			195	7.98	16400		2170	2	45.96	106750	121	9.41	1490	5.68	10	
		5.60	131	15951	26	15925	8.60	16230			305	8.35	18120		1890	3	45.94	106510	121	9.40	1490	5.68	10	
		5.87	186	18026	27	17999	9.12	18380			381	8.83	20440		2060	4	45.84	105310	605	9.38	1480	5.67	10	
		5.90	193	17653	29	17624	8.99	17840			216	8.76	20090		2250	5	45.76	104340	489	9.40	1490	5.68	10	
		6.08	234	16674	27	16647	8.77	16930			283	8.54	19020		2090	6	45.74	104100	121	9.42	1490	5.70	10	
		6.28	283	16723	28	16695	8.79	17010			315	8.63	19460		2450	7	45.71	103740	182	9.41	1490	5.71	10	
		6.70	359	16569	27	16542	8.76	16890			348	8.62	19410		2520	8	45.78	104580	-	424	9.40	1490	5.68	10
		7.00	410	16640	27	16613	8.76	16890			277	8.58	19210		2320	9	45.82	105070	-	247	9.41	1490	5.67	10
		6.90	393	17643	24	17619	8.98	17800			181	8.80	20290		2490	10	45.72	103860	610	9.40	1490	5.65	10	
		6.40	305	15715	9	15706	8.47	15700			-	8.39	18300		2600	11	45.76	104340	-	242	9.40	1490	5.66	10
		6.60	341	13381	6	13375	7.85	13260			-115	7.94	16220		2960	12	45.84	105310	-	489	9.40	1490	5.69	10
		6.02	216	12296	4	12292	7.53	12060			-232	7.61	14750		2690	13	45.90	106030	-	363	9.41	1490	5.69	10
		5.08	60	10720	3	10717	7.09	10510			-207	7.22	13090		2580	14	45.88	105790	121	9.41	1490	5.69	10	
		4.70	30	8620	3	8617	6.45	8450			-167	6.79	11350		2900	15	45.82	105070	363	9.40	1490	5.68	10	
		4.50	18	6148	3	6145	5.62	6140			-	6.08	8720		2580	16	45.61	102540	1276	9.40	1490	5.71	10	
		4.12	3	5053	3	5050	5.19	5090			40	5.87	8000		2910	17	45.30	98800	1886	9.39	1490	5.70	10	
		4.15	4	4304	2	4302	4.89	4410			108	5.56	6970		2560	18	45.04	95670	1518	9.41	1490	5.70	10	
14 - 237		4.15	4	4454	1	4453	4.94	4520			67	5.63	7200	215	2680	19	45.49	101090	-	2733	9.41	1490	5.58	10
158 - 188		4.68	28	6478	2	6476	5.74	6450	2481	3969	26	6.35	9680	2481	3230	20	45.71	103740	-	1336	9.40	1490	5.63	10
221 - 77		4.83	38	7418	9	7409	6.08	7370	3467	3903	39	6.34	9650	3467	2280	21	45.86	105550	-	913	9.41	1490	5.69	10
259 - 11		4.58	22	7612	9	7603	6.17	7630	4057	3573	27	6.43	9980	4057	2350	22	46.00	107240	-	892	9.41	1490	5.70	10
299 - 127		4.71	30	7780	10	7770	6.21	7740	4681	3059	30	6.58	10540	4681	2800	23	46.00	107240	-	871	9.31	1460	5.70	10
301 - 216		4.97	50	7600	10	7590	6.19	7680	4717	2963	90	6.53	10350	4717	2670	24	46.06	107990	-	871	8.85	1350	5.67	10
270 - 226		5.70	144	7664	9	7655	6.20	7710	4222	3488	55	6.52	10320	4222	2610	25	46.09	108360	-	181	8.62	1290	5.63	10
278 - 323		5.85	175	7975	10	7965	6.30	8000	4353	3647	35	6.60	10620	4353	2620	26	46.06	107990	-	181	8.61	1290	5.58	10
272 - 311		6.02	214	7784	10	7774	6.21	7740	4256	3484	34	6.56	10470	4256	2730	27	46.03	107610	192	8.61	1290	5.60	10	
292 - 282		6.09	232	7292	8	7284	6.04	7260	4578	2682	24	6.41	9910	4578	2650	28	46.04	107740	-	66	8.83	1340	5.61	10
298 - 192		6.00	209	6659	7	6652	5.83	6690	4676	2014	38	6.29	9460	4676	2770	29	45.98	106990	378	8.83	1340	5.62	10	
312 - 317		5.20	71	5721	10	5711	5.47	5760	4882	878	49	6.01	8480	4882	2720	30	45.87	105670	666	8.90	1370	5.65	10	
329 - 370		5.00	52	5312	12	5300	5.32	5400	5162	238	100	5.97	8340	5162	2940	31	45.80	104820	429	9.13	1420	5.63	10	
327 - 370		5.06	57	5477	5	5472	5.42	5640	5124	516	168	6.01	8480	5124	2840	Aug 1	45.72	103860	484	9.08	1400	5.63	10	
348 - 399		5.05	56	5796	9	5787	5.55	5960	5456	504	173	6.01	8480	5456	2520	2	45.76	104340	-	242				

INC	55 MIN C		N5+55 MIN CANS		MIN		MINIDOKA			N-M		DATE	L MIL		PA LAT		N5TF CAN		PA+N5TF CAN		55TF CANAL			MIL L	GAGE DISCH	NOR		
	GAGE	DISCH	TOTAL	STD	NOR	TH BAL	GAGE	DISCH	STD	NOR	LO55		1925	GAGE	DISC	GAGE	DISC	TOTAL	STD	NOR	GAGE	DISCH	STD					
1460	5.56	1040	2500			11224	8.92	12800			- 1576	JUN 25	10.95	52	1.97	52	8.70	3010						9.73	3100		2.82	1000
1490	5.50	1020	2510			12476	9.05	13290			- 814	26	10.98	53	1.98	53	8.71	3010						H.D.	2600		2.82	1000
1480	5.42	1000	2480			14105	9.56	15330			- 1225	27	10.96	53	1.98	53	8.73	3020						10.38	3490		2.82	1000
1480	5.48	1020	2500			15123	9.42	14750			373	28	10.86	53	1.98	53	8.68	3000						10.18	3370		H.D.	900
1490	5.57	1040	2530			13474	8.78	12300			1174	27	10.96	53	1.98	53	8.71	3040						10.18	3370		2.84	1000
1490	5.64	1070	2560			13508	9.08	13400			108	30	10.96	53	1.98	53	8.76	3020						10.13	3340		2.88	1000
1490	5.63	1060	2550			14333	9.20	13870			463	JUL 1	10.97	53	1.98	53	8.74	2990						10.08	3310		H.D.	900
1490	5.64	1070	2560			13558	9.08	13400			158	2	10.96	53	1.98	53	8.75	2970						10.06	3300		2.86	1000
1490	5.68	1080	2570			13951	9.43	14790			- 839	3	10.96	52	1.98	52	8.73	2950						10.04	3290		H.D.	900
1490	5.68	1080	2570			15671	10.01	17220			- 1549	4	10.97	52	1.98	52	8.73	2950						10.06	3300		2.97	1000
1480	5.67	1070	2550			18495	10.31	18520			- 25	5	10.94	52	1.98	52	8.71	2940						10.06	3300		2.98	1000
1490	5.68	1070	2560			18019	9.98	17090			929	6	10.97	52	1.98	52	8.70	2930						10.05	3290		2.97	1000
1490	5.70	1070	2560			16581	9.91	16790			- 209	7	10.97	52	1.98	52	8.68	2920						10.10	3320		2.98	1000
1490	5.71	1070	2560			17082	9.88	16670			412	8	10.96	52	1.98	52	8.67	2910						10.10	3320		2.97	1000
1490	5.68	1050	2540			16446	9.81	16370			76	9	10.96	52	1.98	52	8.66	2910						10.11	3330		2.98	1000
1490	5.67	1040	2530			16433	9.93	16880			- 447	10	10.94	52	1.98	52	8.63	2890						10.10	3320		2.98	1000
1490	5.65	1040	2530			18370	9.98	17090			1280	11	10.98	52	1.98	52	8.63	2890						10.10	3320		2.98	1000
1490	5.66	1040	2530			15528	9.07	13370			2158	12	10.96	54	2.00	54	8.64	2900						10.17	3370		2.98	1000
1490	5.69	1050	2540			13191	8.47	11250			1941	13	10.96	53	1.99	53	8.65	2900						10.20	3380		2.98	1000
1490	5.69	1050	2540			11847	8.23	10480			1367	14	10.98	53	1.99	53	8.65	2900						10.22	3400		2.98	1000
1490	5.68	1040	2530			10671	7.57	8520			2151	15	10.98	52	1.98	52	8.64	2900						10.20	3380		2.98	1000
1490	5.71	1050	2540			9183	6.88	6610			2573	16	10.89	51	1.96	51	8.58	2870						9.97	3240		2.98	1000
1490	5.70	1050	2540	180	2720	7456	6.73	6210	210	6000	1246	17	10.95	52	1.97	52	8.63	2890						10.21	3390		2.98	1000
1490	5.70	1050	2540	540	2000	7346	6.79	6360	360	6000	986	18	10.92	52	1.98	52	8.61	2880						10.21	3390		2.98	1000
1490	H.D.	676	2166	440	1726	6382	6.72	6180	936	5244	202	19	11.05	52	1.97	52	H.D.	1840						10.14	3350		2.98	1000
1490	5.58	1020	2510	784	1726	1957	H.D.	4030	-1229	5259	-2073	20	10.88	51	1.96	51	H.D.	848						10.14	3410		2.98	1000
1490	5.63	1030	2520	794	1726	5824	H.D.	5170	-303	5473	654	21	10.88	51	1.95	51	8.52	2780						10.16	3360		2.98	1000
1490	5.69	1050	2540	814	1726	6197	6.80	6390	1933	4457	- 193	22	10.99	51	1.95	51	8.62	3030						10.15	3360		2.98	1000
1490	5.70	1050	2540	814	1726	6588	6.88	6610	2413	4197	- 22	23	11.06	51	1.95	51	8.71	3080						10.14	3350		2.98	1000
1460	5.70	1050	2510	784	1726	8030	7.22	7540	3407	4133	490	24	11.10	51	1.96	51	8.75	3100						10.18	3370		2.98	1000
1350	5.67	1040	2390	664	1726	7582	7.22	7540	3633	3907	42	25	11.08	51	1.96	51	8.76											

ALL DISCHARGE QUANTITIES ARE GIVEN

MINIDOKA			N-M DATE		L MIL		PA LAT		N5TF CAN		PA+N5TF CAN		55TF CANAL				MIL LIFT CAN				MIL		MILNER				M-M	
GAGE	DISCH	STD	NOR	LO55	1925	GAGE	DISC	GAGE	GAGE	DISC	TOTAL	STD	NOR	GAGE	DISCH	STD	NOR	GAGE	DISC	STD	NOR	THBAL	GAGE	DISC	STD	NOR	GAIN	
-1576	12800			1576	10.95	1.97	52	8.70	3010	3062				9.73	3100			2.89	100			6.538	11.22	6890			352	
-814	13290			814	10.98	1.98	53	8.71	3010	3063				H.D.	2600			2.92	102			7.525	H.D.	9240			1715	
-1225	15330			1225	10.96	1.98	53	8.73	3020	3073				10.38	3490			2.92	102			8.665	12.72	8800			135	
373	4750			373	10.86	1.98	53	8.68	3000	3053				10.18	3370			H.D.	95			8.232	11.18	6850			-1382	
1174	12300			1174	10.96	1.98	53	8.77	3040	3093				10.18	3370			2.94	103			5.734	10.84	6470			736	
108	13400			108	10.96	1.98	53	8.76	3020	3073				10.13	3340			2.88	100			6.887	11.98	7730			843	
463	13870			463	10.97	1.98	53	8.74	2990	3043				10.08	3310			H.D.	97			7.420	11.80	7530			110	
158	13400			158	10.96	1.98	53	8.75	2970	3023				10.06	3300			2.96	104			6.273	11.74	7680			707	
-839	14790			839	10.96	1.98	52	8.73	2950	3002				10.04	3290			H.D.	76			8.422	14.27	10650			2228	
-1549	17220			1549	10.97	1.98	52	8.73	2950	3002				10.06	3300			2.97	104			10.814	15.41	12640			1826	
-25	18520			25	10.94	1.98	52	8.71	2940	2992				10.06	3300			2.98	105			12.123	14.62	11220			-203	
929	17090			929	10.97	1.98	52	8.70	2930	2982				10.05	3290			2.97	104			10.714	14.18	10510			-204	
-209	16790			209	10.97	1.98	52	8.68	2920	2972				10.10	3320			2.98	105			10.323	14.06	10330			-63	
412	1670			412	10.96	1.98	52	8.67	2910	2962				10.10	3320			2.97	104			10.284	14.01	10260			-24	
76	16370			76	10.96	1.98	52	8.66	2910	2962				10.11	3330			2.98	105			9.973	13.83	9990			17	
-447	16880			447	10.94	1.98	52	8.63	2890	2942				10.10	3320			3.00	106			10.512	14.68	11330			818	
1280	17090			1280	10.98	1.98	52	8.63	2890	2942				10.17	3370			H.D.	101			10.677	H.D.	8850			-1827	
2158	13370			2158	10.96	2.00	54	8.64	2900	2954				10.20	3380			3.01	106			6.930	9.63	5160			-1770	
1941	11250			1941	10.96	1.99	53	8.65	2900	2953				10.21	3390			3.00	106			4.801	H.D.	5120			319	
1367	10480			1367	10.98	1.99	53	8.65	2900	2953				10.22	3400			3.02	103			4.024	7.18	2680			-1344	
2151	8520			2151	10.98	1.98	52	8.64	2900	2952				10.20	3380			3.04	100			2.088	H.D.	1200			-888	
2573	6610			2573	10.89	1.96	51	8.58	2870	2921				9.97	3240			3.05	101			3.48	H.D.	85			-263	
1246	6210	210	6000	1246	10.95	1.97	52	8.63	2890	2942	-58	3000	10.21	3390	390	3000	95	95	H.D.	95	0	-217	2.02	30	30	0	247	
786	6360	360	6000	786	10.92	1.98	52	8.61	2880	2932	-68	3000	9.82	3160	160	3000	100	100	3.04	100	0	168	1.96	27	27	0	-141	
202	6180	936	5244	202	11.05	1.97	52	H.D.	1840	1892	-352	2244	10.14	3350	350	3000	98	98	2.90	98	0	840	2.40	58	58	0	-782	
-2073	4030	-1229	5259	-2073	10.88	1.96	51	H.D.	848	899	-1360	2259	10.24	3410	410	3000	98	98	2.88	98	0	-377	H.D.	49	49	0	426	
654	5170	-303	5473	654	10.88	1.95	51	8.52	2980	3031	558	2473	10.16	3360	360	3000	85	85	H.D.	85	0	-1306	1.84	22	22	0	1328	
-193	6390	1933	4457	-193	10.99	1.95	51	8.62	3030	3081	1624	1457	10.14	3350	350	3000	96	96	H.D.	96	0	-137	H.D.	137	137	0	274	
-22	6610	2413	4197	-22	11.06	1.95	51	8.71	3080	3131	1934	1197	10.14	3350	350	3000	99	99	H.D.	99	0	30	H.D.	978	978	0	948	
490	7540	3407	4133	490	11.10	1.96	51	8.75	3100	3151	2018	1133	10.18	3370	370	3000	102	102	H.D.	102	0	917	H.D.	1400	1400	0	483	
42	7540	3633	3907	42	11.08	1.96	51	8.76	3110	3161	2254	907	10.18	3370	370	3000	104	104	3.02	104	0	905	H.D.	472	472	0	-433	
663	7150	2778	4372	663	11.10	1.96	51	8.78	3120	3171	1799	1372	10.15	3360	360	3000	104	104	3.00	104	0	515	6.45	1990	1990	0	1475	
146	8350	3809	4541	146	11.08	1.96	51	8.78	3120	3171	1630	1541	10.15	3360	360	3000	104	104	3.01	104	0	1715	5.72	1360	1360	0	-355	
932	7420	2932	4488	932	11.08	1.96	51	8.76	3110	3161	1673	1488	10.13	3350	350	3000	104	104	3.01	104	0	805	H.D.	358	358	0	-447	
734	6550	2944	3606	734	11.10	1.96	51	8.76	3110	3161	2555	606	10.15	3370	370	3000	104	104	3.00	104	0	-85	2.56	75	75	0	160	
1208	6260	2860	3400	1208	11.05	1.96	50	8.69	3070	3120	2720	400	10.16	3380	380	3000	106	106	3.06	106	0	-346	2.34	53	53	0	399	
526	6230	2830	3400	526	10.98	1.96	50	8.58	3010	3060	2660	400	10.14	3370	370	3000	100	100	H.D.	100	0	-300	2.02	30	30	0	330	
189	6130	2952	3178	189	10.85	1.96	50	8.49	2960	3010	2636	374	10.15	3380	376	2804	85	85	H.D.	85	0	-345	1.90	24	24	0	369	
434	6100	2744	3356	434	10.84	1.97	51	8.47	2950	3001	2606	395	10.16	3390	429	2961	0	0	DRY	0	0	-291	1.87	23	23	0	314	
-252	6080	3056	3024	-252	10.72	1.98	51	8.43	2930	2981	2625	356	10.16	3400	732	2668	0	0	DRY	0	0	-301	1.84	22	22	0	323	
422	5950	2646	3305	422	10.64	1.98	51	8.35	2870	2941	2552	389	10.14	3380	464	2916	67	67	H.D.	67	0	-438	1.79	20	20	0	458	
72	6000	2792	3208	72	10.68	1.98	51	8.32	2870	2921	2544	377	10.16	3400	569	2831	103	103	2.91	103	0	-424	1.77	20	20	0	444	
476	6130	2730	3400	476	10.74	1.98	51	8.37	2900	2951	2551	400	10.16	3410	410	3000	90	90	H.D.	90	0	-321	1.76	19	19	0	340	
714	6710	3310	3400	714	10.98	1.98	51	8.43	2930	2981	2581	400	H.D.	2950	-50	3000	99	99	H.D.	99	0	680	H.D.	593	593	0	-87	
1083	6420	3020	3400	1083	10.98	1.98	51	8.36	2890	2941	2541	400	10.15	3410	410	3000	100	100	2.86	100	0	-31	2.17	39	39	0	70	
1160	5870	2470	3400	1160	10.80	1.99	51	8.14	2770	2821	2421	400	10.08	3370	370	3000	100	100	2.86	100	0	-421	1.78	20	20	0	441	
805	5560	2160	3400	805	10.68	2.00	51	8.07	2740	2791	2391	400	9.77	3300	300	3000	101	101	2.87	101	0	-632	1.72	18	18	0	650	
657	5460	2438	3222	657	10.54	2.00	51	8.06	2730	2781	2402	379	9.98	3320	477	2843	90	90	H.D.	90	0	-531	1.64	15	15	0	546	
265	5790	2829	2961	265	10.60	H.D.	49	8.06	2730	2781	2411	348	9.98	3320	707	2613	46	46	H.D.	46	0	-335	1.60	14	14	0	349	
68	5970	2960	3010	68	10.74	H.D.	42	7.87	2690	2732	2378	354	9.98	3320	664	2656	16	16	H.D.	16	0	-98	1.60	14	14	0	112	
54	5900	2700	3200	54	10.78	2.02	51	7.84	2670	2721	2345	376	9.98	3320	496	2824	0	0	DRY	0	0	-141	1.58	14	14	0	155	
210	5710	2529	3181	210	10.79	2.04	52	7.67	2580	2632	2258	374	9.28	3320	513	2807	71	71	H.D.	71	0	-313	1.58	14	14	0	327	

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

1925 DISTRIBUTION WATER DISTRICT NO 36

JACKSON LAKE				MORAN				TWIN LK				HEISE				MORAN-HEISE				LORENZO				H-L		REXBURG		DATE		
CAPACIT		DRAFT		GAGE	DISC	STD	NOR	DISC	RILEY	STD	TLK	NOR	TOTGN	STD	TLK	NOR	TOTGN	STD	TLK	STD	TLK	STD	TLK	DISC	GAGE	DATE				
GAGE		CAPACIT		DRAFT		GAGE	DISC	STD	NOR	DISC	RILEY	STD	TLK	NOR	TOTGN	STD	TLK	NOR	TOTGN	STD	TLK	STD	TLK	DISC	GAGE	DATE				
1925	56.73	546870	11270	6.84	7330	5681	1649	30	7360	5539	30	7265	Aug 12	51.4	12810	12839	5539	5474	142	0	5616	5290	29	249	1	357	1	176	14044	1925
12	56.23	535170	11700	6.85	7350	5879	1451	30	7380	5752	29	6931	13	5.11	12690	12712	5752	5332	147	1	5480	5503	28	247	1	352	1	140	13772	14
13	55.78	524680	10420	6.82	7290	5287	2001	30	7320	5157	29	7734	14	5.16	12900	12920	5157	5600	132	1	5733	4956	28	201	1	423	1	142	14610	15
14	55.33	514220	10460	6.61	6870	5214	1596	30	6900	5142	29	7543	15	5.11	12690	12714	5142	5814	132	1	5947	4957	28	185	1	439	1	176	14624	16
15	54.91	504470	9790	6.37	6400	4916	1484	35	6435	4793	34	7106	16	4.92	11910	11933	4793	5498	123	1	5622	4582	33	211	1	438	1	176	13823	17
16	54.51	495240	9230	6.14	5970	4654	1316	34	6004	4538	33	6759	17	4.77	11310	11330	4538	5326	116	1	5443	4316	32	222	1	447	1	176	13290	18
17	54.15	486230	8310	5.82	5400	4190	1210	30	5430	4085	29	6625	18	4.62	10720	10739	4085	5309	105	1	5415	3868	28	217	1	422	1	176	12499	19
18	53.83	479570	7360	5.49	4830	3711	1119	26	4896	3618	26	6390	19	4.44	10020	10034	3618	5178	93	0	5271	3473	25	195	1	413	1	176	11724	20
19	53.53	472700	6870	5.33	4580	3464	1116	21	4601	3377	20	6178	20	4.32	9570	9575	3377	4974	87	1	5062	3188	19	189	1	408	1	176	11225	21
20	53.24	466050	6650	5.20	4370	3353	1017	20	4390	3269	20	5965	21	4.23	9240	9254	3269	4864	84	0	4948	3079	19	190	1	408	1	176	10704	22
21	52.95	459420	6630	5.20	4370	3343	1027	18	4388	3259	17	5859	22	4.20	9130	9139	3259	4747	84	1	4832	3060	16	199	1	407	1	176	10775	23
22	52.65	452600	6820	5.19	4350	3438	912	18	4368	3352	18	5668	23	4.17	9020	9038	3352	4670	86	0	4756	3121	17	231	1	403	1	176	10648	24
23	52.35	445770	6830	5.20	4370	3443	927	17	4387	3357	16	5595	24	4.15	8950	8968	3357	4587	86	1	4668	3132	15	225	1	394	1	176	10508	25
24	52.04	438720	7050	5.21	4390	3554	836	17	4407	3465	17	5415	25	4.13	8880	8897	3465	4490	89	0	4579	3208	16	260	1	387	1	176	10387	26
25	51.75	432180	6940	5.21	4390	3297	1093	16	4406	3215	15	5781	26	4.16	8990	9011	3215	4605	82	1	4688	2971	14	249	1	385	1	176	10487	27
26	51.50	426540	5640	5.21	4390	2843	1547	15	4405	2772	15	6694	27	4.29	9460	9481	2772	5076	71	0	5147	2578	14	194	1	388	1	176	10981	28
27	51.27	421350	5190	5.20	4370	2617	1753	15	4385	2551	15	7365	28	4.41	9910	9931	2551	5194	77	1	5272	2810	13	173	1	411	1	176	11601	29
28	51.00	415260	6090	5.19	4350	3070	1280	15	4365	2993	14	6552	29	4.31	9940	9959	2993	5194	77	1	5272	2810	13	183	1	411	1	176	11379	30
29	50.68	408100	7160	5.47	4800	3610	1190	15	4815	3520	15	5834	30	4.26	9350	9369	3520	4554	90	0	4644	3309	14	211	1	414	1	176	11059	31
30	50.31	399830	8270	5.76	5290	4169	1121	15	5305	4065	15	5809	31	4.40	9870	9889	4065	4584	104	0	4688	3829	14	236	1	416	1	176	11599	32
31	49.95	391790	8040	5.75	5280	4054	1226	15	5295	3953	14	5923	32	4.40	9870	9890	3953	4595	101	1	4697	3724	14	229	1	421	1	176	11660	33
SEP 1	49.59	383820	7970	5.73	5240	4018	1222	25	5265	3918	25	5837	33	4.37	9760	9780	3918	4515	100	0	4615	3691	24	227	1	421	1	176	11530	34
2	49.26	376510	7310	5.46	4790	2685	1105	25	4815	3593	24	5832	34	4.28	9430	9449	3593	4634	92	1	4727	3435	23	158	1	418	1	176	11179	35
3	48.98	370310	6200	5.16	4310	3126	1184	30	4340	3048	29	5892	35	4.15	8950	8969	3048	4629	78	1	4708	2899	28	149	1	424	1	176	10739	36
4	48.74	365050	5260	4.72	3650	2652	998	35	3685	2586	35	5888	36	4.02	8490	8509	2586	4824	66	0	4890	2428	33	158	2	423	1	176	10279	37
5	48.54	360660	4390	4.44	3260	2213	1047	35	3295	2158	34	5966	37	3.92	8140	8158	2158	4863	55	1	4919	2026	32	132	2	429	1	176	9968	38
6	48.52	360220	440	H.O.																										

DAILY SUMMARY OF DATA AT AND BETWEEN SNAKE RIVER GAGING

C	HEISE RILEY	DATE	DIV HEISE WOOD				WOOD		WOODVILLE				LOR-WOOD		HEISE - WOODVILLE				DIV WOOD BLACK	BLACK THBAL	BLACKFOOT BRIDGE			WOOD - BLACK			CUM LOSS STD	BLACK APPD STD	BLACK GAGE DIA
			TOTAL	STD	TLK	NOR	TH BAL	GA6E	D15CH	STD	NOR	L5STD	L TL	TOTGN	L STD	L TL	GNDR	D15CH			STD	NOR	TOTGN	L STD	GNDR				
70	14004	Aug 15	6752	135		6617	7252	757	8170	5158	3012	26	0	918	275	1	1194	2774	5296	5400	4848	552	4	310	314			5.78	16
60	13972	14	6686	111	37	6575	7286	767	8520	5357	3163	28	0	1234	275	1	1510	2787	5733	5750	5036	714	17	321	338			6.09	23
90	14670	15	6561	99	58	6462	8049	783	9080	4802	4278	25	0	1031	226	1	1258	2767	6313	6350	4514	1836	37	288	325			6.42	30
70	14604	16	6302	40	55	6262	8302	787	9220	4865	4355	25	0	918	210	1	1129	2673	6547	6590	4573	2017	43	292	335			6.90	39
90	13823	17	6057	94	65	5963	7766	772	8690	4432	4258	23	1	924	234	2	1160	2564	6126	6120	4166	1954	6	266	260			6.80	37
60	13290	18	5870	47	66	5823	7420	759	8240	4213	4027	22	0	820	244	1	1065	2475	5765	5720	3960	1760	45	253	208			6.70	35
60	12499	19	5420	43	63	5577	6879	741	7620	3771	3849	19	0	741	236	1	978	2489	5131	5040	3545	1495	91	226	135			6.05	22
80	11724	20	5563	41		5522	6161	720	6920	3590	3530	17	0	759	212	1	972	2519	4401	4310	3187	1123	91	203	112			5.81	16
50	11225	21	5525	52	57	5473	5700	705	6430	3082	3348	16	0	776	241	1	1018	2451	2787	2600	2906	306	91	185	73			5.78	16
50	10904	22	5789	53	43	5736	5115	693	6050	2987	3063	15	0	730	205	1	936	2548	3882	3770	2897	873	112	185	73			5.43	10
40	10775	23	5983	42		5941	4792	680	5640	3019	2621	15	0	935	205	1	1141	2575	3475	3310	2808	502	165	179	14			5.55	17
10	10648	24	5902	40		5862	4746	673	5420	3082	2338	16	0	848	214	1	1063	2541	3099	2920	2838	82	179	181	2			5.60	12
40	10508	25	6044	40		6004	4464	667	5240	3091	2149	16	0	776	241	1	1018	2451	2787	2600	2906	306	91	185	73			5.78	16
90	10387	26	5988	43		5945	4399	663	5120	3161	1959	16	1	721	276	2	999	2462	2658	2510	2771	461	148	190	42			5.64	13
70	10481	27	6083	75		6008	4398	666	5210	2895	2315	15	0	812	259	1	1072	2471	2732	2540	2721	181	199	174	25			5.10	8
00	10981	28	6120	64		6056	4861	682	5700	2515	3185	13	0	839	207	1	1047	2566	3134	2940	2364	576	194	151	43			5.09	17
70	11601	29	5766	41		5725	5835	706	6460	2339	4121	12	0	625	185	1	811	2617	3843	3670	2199	1471	173	140	33			5.03	6
20	11379	30	5365	45		5320	6014	716	6790	2764	4026	14	0	776	197	1	974	2556	4234	3990	2598	1392	244	166	78			7.05	41
90	11059	31	5533	52		5481	5526	713	6690	3254	3436	17	0	1164	228	1	1393	2450	4240	4080	3059	1021	160	195	35			4.80	37
10	11599	5EP1	5475				6124	727	7150	3824	3326	19	0	964	248	0	1212	2461	4759	4600	3496	1104	159	223	64			4.89	38
70	11660	2	5404				6256	(7.23)	7220	3719	3501	19	0	582	245	1	828	2388	4762	4770	3475	1295	8	222	230			7.00	40
50	11530	3	4962				6568		7150	3697	3453	18	0	621	175	1	797	2364	4726	4690	3234	1456	36	207	171			4.87	38
30	11179	4	4710				6469		7090	3441	3649	17	0	686	163	1	850	2344	4676	4520	2738	1782	156	175	19			5.93	19
70	10739	5	4405				6334	(7.23)	7020	2913	4107	14	0	686	163	1	850	2344	4676	4520	2738	1782	156	175	19			5.90	18
70	10279	6	4142				6137	7.15	6760	2448	4312	12	1	623	170	3	776	2292	4468	4280	2301	1979	188	147	41			5.9	18
310	9968	7	3896				6072	7.05	6430	2048	4382	10	0	358	142	2	502	2244	4186	4070	1925	2145	116	123	7			6.08	22
370	9081	8	3567				5514	6.93	6050	232	5818	1	0	536	16	2	554	2188	3862	3720	218	3502	142	14	128			5.85	17
350	7845	9	3635				4210	6.68	5270					1060			2077	3193	3193	3120			73				6.12	23	
260	8214	10	3716				4498	6.62	5090					592			2069	3021	3021	2970			51				4.20	26	
180	8104	11	3673				4431	6.63	5120					689			2071	3043	3043	2980			63				6.40	35	
940	7464	12	3557				3907	6.50	4740					833			2014	2726	2726	2680			46				6.78	37	
850	6623	13	3525				3098	6.26	4090					972			1919	2171	2171	2160			11				6.80	31	
860	6423	14	3181				3242	6.20	3930					688			1879	2051	2051	2050			14				6.50	32	
860	6452	15	3536				2916	6.07	3620					704			1814	1806	1806	1820			14				6.12	23	
930	6412	16	3598				2814	6.05	3580					766			1799	1781	1781	1630			151				6.08	22	
980	6421	17	3684				2737	6.06	3600					863			1769	1831	1831	1670			22				6.00	20	
960	6300	18	3769				2531	6.01	3480					949			1689	1751	1751	1700			51				5.90	18	
970	6332	19	3870				2462	5.99	3440					978			1694	1836	1836	1710			126				6.00	20	
030	6674	20	3821				2853	6.03	3530					677			1681	2179	2179	2270			91				6.30	39	
190	6784	21	3646				3138	6.17	3860					722			1448	3212	3212	3100			112				5.20	62	
340	7194	22	3281				3913	6.47	4660					747			1255	3625	3625	3560			65				8.58	69	
460	7335	23	3105				4230	6.55	4880					650			1175	3795	3795	3710			85				8.21	71	
480	7125	24	3015				4110	6.58	4970					860			1111	3859	3859	3730			85				7.07	4	
270	6784	25	2999				3785	6.58	4970					1185			1114	3626	3626	3490			136				1.83	3	
090	6503	26	1782				4721	6.50	4740					19			1116	3624	3624	3490			134				6.89	38	
990	6302	27	2944				3358	6.50	4740					1382			1116	3484	3484	3290			194				6.90	35	
980	6222	28	2798				3424	6.45	4600					1176			1101	3389	3389	3200			189				6.53	3	
940	6132	29	2129				4003	6.41	4490					487			950	3590	3590									6.15	2
930	6142	30	2642				3500	6.43	4540					1040															
			688,444											5112582	11145	46													
														221857															
		</																											

ING STATIONS FROM JACKSON LAKE WYOMING TO MILNER IDAHO

BLACK RIVER		5-M CLOUGH		CLOUGHS			B-C		NEELEY			C-N		LAKE WALCOTT			N5 MINC		55 MINC		N5+55 MINC				
DISC	GAGE	CAN	TH BAL	GAGE	DISCH	STD	NOR	GAIN	DATE	GAGE	DISCH	STD	NOR	GAIN	DATE	GAGE	CAPACT	DRAFT	GAGE	DISC	GAGE	DISC	TOTAL	STD	
5.78	160	5560	2	5558	5.46	5740	4848	892	182	Aug 4	5.99	84.10	4848	3562	2670	Aug 15	45.67	103260	-792	8.38	1230	5.12	882	2112	1950
6.09	232	5982	4	5978	5.62	6140	5036	1104	162	15	6.12	8860	3824	2720	16	45.90	106030	-1397	8.44	1240	5.03	857	2097	1672	
6.42	307	6657	1	6656	5.87	6800	4514	2286	144	16	6.30	9500	4986	2700	17	46.12	108740	-1366	8.40	1240	4.96	837	2077	491	
6.90	390	6980	0	6980	5.97	7070	4573	2497	90	17	6.37	9760	5187	2690	18	46.07	108110	317	8.21	1190	4.82	799	1989	263	
6.80	373	6493	0	6493	5.77	6530	4166	2364	37	18	6.24	9280	4166	2750	19	45.98	106990	565	8.21	1190	4.86	810	2000	286	
6.70	356	6076	0	6076	5.58	6040	3960	2080	-36	19	6.05	8620	3960	2580	20	45.98	106990	0	8.49	1260	4.96	837	2097	837	
6.05	222	5262	0	5262	5.26	5250	3545	1705	-12	20	5.92	8170	3545	2920	21	45.92	106270	363	8.77	1330	5.09	873	2203	978	
5.81	166	4476	0	4476	4.97	4580	3187	1393	104	21	5.69	7400	3187	2820	22	45.75	104220	1034	8.83	1340	5.17	896	2236	1423	
5.78	160	3930	0	3930	4.72	4040	2897	1143	110	22	5.48	6720	2897	2680	23	45.57	102050	1094	8.82	1340	5.20	904	2244	1821	
5.43	100	3410	0	3410	4.53	3660	2808	852	250	23	5.40	6470	2808	2810	24	45.40	100010	1028	8.80	1330	5.24	916	2246	1984	
5.55	118	3038	0	3038	4.31	3240	2838	402	202	24	5.20	5860	2838	2620	25	45.19	97470	1281	8.81	1340	5.30	933	2273	2273	
5.60	126	2886	0	2886	4.25	3130	2760	370	244	25	5.15	5720	2760	2590	26	44.98	94950	1270	8.91	1360	5.32	939	2299	2299	
5.78	160	2760	0	2760	4.13	2910	2600	310	150	26	5.13	5660	2600	2750	27	44.80	92860	1054	8.95	1370	5.37	953	2323	2323	
5.64	133	2643	0	2643	4.09	2840	2510	330	197	27	5.15	5720	2510	2880	28	44.55	87940	1472	8.93	1370	5.39	959	2329	2329	
5.62	130	2670	0	2670	4.16	2970	2540	430	300	28	5.14	5690	2540	2720	29	44.35	87620	1170	8.85	1350	5.32	939	2289	2289	
5.79	162	3102	0	3102	4.43	3470	2940	530	368	29	5.22	5920	2940	2450	30	44.29	86920	353	8.77	1330	5.18	899	2229	2229	
5.99	186	4466	3	4463	5.00	4650	2301	2349	187	7	5.74	7560	2301	2910	8	45.48	100970	-973	7.88	1110	4.62	746	1856	130	
6.08	229	4299	3	4296	5.01	4670	1925	2745	374	8	5.72	7500	1925	2830	9	45.61	102540	-605	7.62	1050	4.21	643	1693	51	
5.85	175	3895	1	3894	4.75	4100	218	3882	206	9	5.58	7040	218	2940	10	45.71	103740	-605	7.36	993	4.13	624	1617	-109	
6.12	239	3359	1	3358	4.50	3600			242	10	5.40	6470		2870	11	45.81	104940	-605	7.24	967	4.08	612	1579	-147	
6.20	260	3230	0	3230	4.44	3490			260	11	5.42	6530		3040	12	45.88	105790	-429	7.26	971	3.92	575	1546	-180	
6.60	339	3319	0	3319	4.48	3560			241	12	5.39	6440		2880	13	45.88	105790	0	7.25	969	3.77	542	1511	-215	
6.78	370	3050	0	3050	4.32	3260			210	13	5.27	6070		2810	14	45.88	105790	0	7.26	971	3.69	525	1496	-230	
6.80	373	2533	0	2533	4.00	2690			157	14	5.13	5660		2970	15	45.87	105670	-61	7.26	971	3.69	525	1496	-230	
6.50	321	2371	0	2371	3.86	2460			89	15	5.01	5320		2860	16	45.91	106150	-242	7.26	971	3.69	525	1496	-230	
6.12	239	2059	0	2059	3.63	2100			41	16	4.85	4880		2780	17	45.93	106390	-121	7.27	973	3.67	525	1498	18	
6.08	229	1859	0	1859	3.60	2050			191	17	4.82	4790		2740	18	46.00	107360	-489	7.15	947	3.69	525	1472		
6.00	209	1879	0	1879	3.62	2080			201	18	4.70	5010		2930	19	45.95	106630	-368	6.82	876	3.69	525	1401		
5.90	186	1926	0	1926	3.62	2080			154	19	4.93	5090		3010	20	45.89	105910	-363	6.78	868	3.63	511	1379		
6.00	209	1909	0	1909	3.66	2140			231	20	4.87	4930		2790	21	45.87	105670	-121	7.27	973	3.67	525	1498		
6.30	283	1993	0	1993	3.77	2310			317	21	5.12	5630		3320	22	45.69	103500	1094	5.28	574	2.80	349	923		
6.90	390	2660	0	2660	4.09	2840			180	22	5.17	5770		2930	23	45.49	101090	1215	5.25	569	2.56	308	877		
8.20	624	3724	0	3724	4.63	3860			136	23	5.48	6720		2860	24	45.40	100010	545	5.24	567	2.54	304	871		
8.58	696	4256	0	4256	4.84	4300			44	24	5.72	7500		3200	25	45.28	98560	731	5.23	565	2.53	302	867		
8.21	626	4336	0	4336	4.90	4430			94	25	5.64	7230		2800	26	45.06	95910	1336	5.25	569	2.52	301	870		
7.07	419	4149	0	4149	4.83	4280			131	26	5.52	6840		2560	27	45.00	95180	368	5.23	565	2.50	297	862		
6.89	388	3878	0	3878	4.73	4060			182	27	5.50	6780		2720	28	44.90	94020	585	5.22	564	2.75	340	904		
6.89	388	3878	0	3878	4.72	4040			162	28	5.45	6620		2580	29	44.99	95070	-529	5.21	562	2.74	338	900		
6.90	390	3680	0	3680	4.60	3800			120	29	5.45	6620		2820	30	45.08	96150	-544	5.23	565	2.40	281	846		
6.53	326	3526	0	3526	4.53	3660			134	30	5.56	6970		3310	Oct 1	45.09	96270	-61	5.23	565	2.27	261	826		
6.15	247		0		4.59	3780	208546		17394	Oct 1	5.56	6770	208546	401700	2	45.06	95910	182	5.22	564	2.18	246	810		
									119					2665											

PLATE NO

NOR	TH BAL	MINIDOKA			N-M	DATE	L MIL		PA LAT		N5TF CAN		PA+N5TF CAN		55TF CANAL			MIL LIFT CAN			MIL			MILNER		
		GAGE	DISCH	STD		LO55	GAGE		GAGE	DISC	GAGE	DISC	TOTAL	STD	NOR	GAGE	DISC	GAGE	DISC	STD	NOR	TH BAL	GAGE	DISC	STD	NOR
162	5506	648	5560	2160	3400	-	10.88	2.03	52	7.64	2560	2612	2212	400	9.99	3320	320	266	90	90	0	462	160	14	14	0
424	5366	647	5540	2140	3400	-	17	10.96	2.03	52	7.61	2602	2202	400	9.91	3280	280	255	85	85	0	427	H.D.	583	583	0
1536	6057	654	5710	2310	3400	347	18	10.79	2.04	52	7.60	2592	2192	400	9.80	3200	200	H.D.	82	82	0	164	607	1650	1650	0
1726	8088	717	7400	3739	3461	688	19	10.81	2.04	52	7.59	2592	2131	461	9.80	3190	190	258	86	86	0	1532	700	2500	2500	0
1726	7845	724	7590	4190	3400	255	20	10.84	2.04	52	7.58	2582	2182	400	9.70	3120	120	250	82	82	0	1806	H.D.	524	524	0
1260	6523	640	5360	1960	3400	1163	21	10.76	2.04	52	7.57	2582	2182	400	9.63	3070	70	258	86	86	0	378	170	17	17	0
1225	6330	635	5240	1840	3400	1090	22	10.72	2.04	52	7.41	2492	2092	400	9.50	2990	10	256	86	86	0	328	154	13	13	0
813	6198	631	5140	1740	3400	1058	23	10.64	2.03	52	7.28	2422	2022	400	9.42	2930	70	258	86	86	0	298	154	13	13	0
423	5570	625	4990	1590	3400	580	24	10.62	2.02	51	7.30	2431	2031	400	9.48	2960	40	258	86	86	0	487	156	13	13	0
262	5252	623	4940	1540	3400	312	25	10.62	2.00	50	7.14	2350	1950	400	9.45	2940	60	258	86	86	0	436	156	13	13	0
0	4868	613	4700	1678	3022	168	26	10.44	2.00	50	7.09	2320	1964	356	9.43	2930	264	256	86	86	0	636	158	14	14	0
0	4691	605	4520	1560	2960	171	27	10.20	1.99	49	7.08	2319	1971	348	9.44	2930	318	H.D.	70	70	0	799	157	14	14	0
0	4391	608	4580	1520	3060	189	28	9.92	1.98	49	7.06	2309	1949	360	9.45	2940	240	257	86	86	0	755	156	13	13	0
0	4863	618	4820	1610	3210	43	29	9.98	1.98	49	7.09	2319	1941	378	9.47	2950	118	254	84	84	0	533	156	13	13	0
0	4571	627	5040	1890	3150	469	30	10.12	1.98	49	7.10	2329	1958	371	9.45	2940	161	255	85	85	0	314	156	13	13	0
0	4044	625	4990	2010	2780	746	31	10.19	1.97	48	7.09	2318	1967	351	9.45	2940	311	256	86	86	0	354	158	14	14	0
772	4470	619	4850	1450	3400	380	SEP 1	10.24	1.96	48	7.08	2318	1918	400	9.45	2940	60	257	86	86	0	494	157	14	14	0
1332	4555	620	4870	1470	3400	315	2	10.21	1.96	48	7.09	2318	1918	400	9.44	2930	70	261	88	88	0	466	155	13	13	0
971	4507	615	4750	1350	3400	243	3	10.20	1.96	48	7.07	2308	1908	400	9.44	2930	70	252	84	84	0	572	154	13	13	0
935	4886	614	4730	1330	3400	156	4	10.16	1.96	48	7.06	2308	1908	400	9.45	2940	60	260	88	88	0	606	154	13	13	0
964	4652	612	4680	1280	3400	28	5	10.21	1.96	48	6.99	2268	1868	400	9.46	2950	50	260	88	88	0	626	153	13	13	0
1125	5159	615	4750	1350	3400	409	6	10.23	1.96	48	7.01	2278	1878	400	9.44	2930	70	214	64	64	0	522	154	13	13	0
1266	4857	611	4650	1250	3400	207	7	10.24	1.96	48	6.98	2268	1868	400	9.45	2940	60	192	54	54	0	612	153	13	13	0
1692	4764	609	4610	1210	3400	154	8	10.27	1.96	48	7.02	2288	1888	400	9.38	2900	100	192	54	54	0	632	154	13	13	0
1726	4731	603	4470	937	3533	261	9	10.28	1.96	48	7.01	2278	1745	533	9.29	2850	150	193	54	54	0	712	155	13	13	0
1726	4931	593	4240	391	3849	691	10	10.24	1.76	36	7.00	2266	1417	849	9.24	2820	180	193	54	54	0	900	155	13	13	0
1726	4742	590	4170	926	5096	572	11	10.25	1.68	32	6.98	2252	156	2096	9.15	2770	230	192	54	54	0	706	156	13	13	0
1726	4248	586	4080	664	4744	168	12	10.29	1.68	32	7.02	2272	528	1744	8.92	2640	360	192	54	54	0	886	156	13	13	0
1726	4522	597	4330	474	4804	192	13	10.49	1.68	32	7.02	2272	468	1804	8.82	2590	410	173	54	54	0	586	158	14	14	0
1726	4894	600	4400	314	4714	494	14	10.74	1.68	32	6.97	2242	528	1714	8.74	2550	450	193	54	54	0	446	162	15	15	0
1726	4559	588	4130	214	4344	429	15	10.76	1.68	32	6.92	2222	878	1344	8.42	2380	620	193	54	54	0	526	H.D.	163	163	0
1726	4225	563	3580	354	3934	645	16	10.56	1.69	32	6.79	2152	1218	934	8.17	2250	750	193	54	54	0	876	185	23	23	0
1726	3582	533	3000	594	3594	582	17	10.41	H.D.	27	H.D.	1417	823	594	8.08	2200	800	194	54	54	0	671	185	23	23	0
1480	3261	533	3000	400	3400	261	18	10.64	DRY	0	3.97	898	498	400	7.89	2110	890	193	54	54	0	62	187	23	23	0
	2829	536	3060			231	19	11.04	DRY	0	3.93	882			7.77	2050		1.89	52			76	H.D.	1040		
	3977	569	3710			267	20	10.92	DRY	0	3.93	882			7.77	2050		1.89	52			726	658	1110		
	4074	601	4420			346	21	10.88	DRY	0	3.92	879	879		H.D.	1960		1.87	51			1530	732	2810		
	3946	621	4890			944	22	10.92	DRY	0	3.91	875	875		6.58	1500		1.82	49			2466	860	4080		
	5801	670	6130			329	23	10.95	DRY	0	3.91	875	875		6.59	1510		1.77	46			3699	922	4730		
	6108	697	6850			742	24	10.96	DRY	0	4.05	930	930		6.61	1520		1.76	46			4354	966	5190		
	6394	708	7150			756	25	10.96	DRY	0	4.07	938	938		6.62	1520		1.70	43			4649	947	4990		
	7364	707	7120			244	26	10.98	DRY	0	4.08	942	942		6.77	1590		1.68	42			4546	932	4830		
	7696	705	7060			636	27	10.94	DRY	0	H.D.	1620	1620		7.17	1770		1.72	44			3626	848	3960		
	6346	683	6470			124	28	10.42	DRY	0	4.18	983	983		7.33	1840		1.70	43			3604	836	3840		
	6461	669	6100			361	29	10.79	DRY	0	H.D.	1650	1650		7.23	1790		1.69	43			2617	H.D.	2270		
	5191	651	5640			449	30	10.67	DRY	0	3.86	855	855		7.10	1730		1.70	43			3012	827	3750		
	5230	640	5360			130	31	10.48	Est	0	3.43	700	700		7.02	1700		DRY	0			2960	843	3910		
	6083	665	6000			83	2	10.40	Est	0	3.16	613	613		6.65	1530		DRY	0			3857	918	4680		
	6342	677	6310			32	3	10.18	Est	0	3.16	613	613		6.58	1500		DRY	0			4197	962	5150		
						28822																				
						188																				

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 very small amount of water developed by the owners of the Sheppard canal was turned into the river above Roberts and served as a source of supply for this canal after July 19. While this was treated the same as storage water the amount was so small that no attempt was made to secure records, except for occasional checks to make certain that the total was sufficient to cover the draft by the Sheppard canal. Hence no separate account of this water is included in these tables.

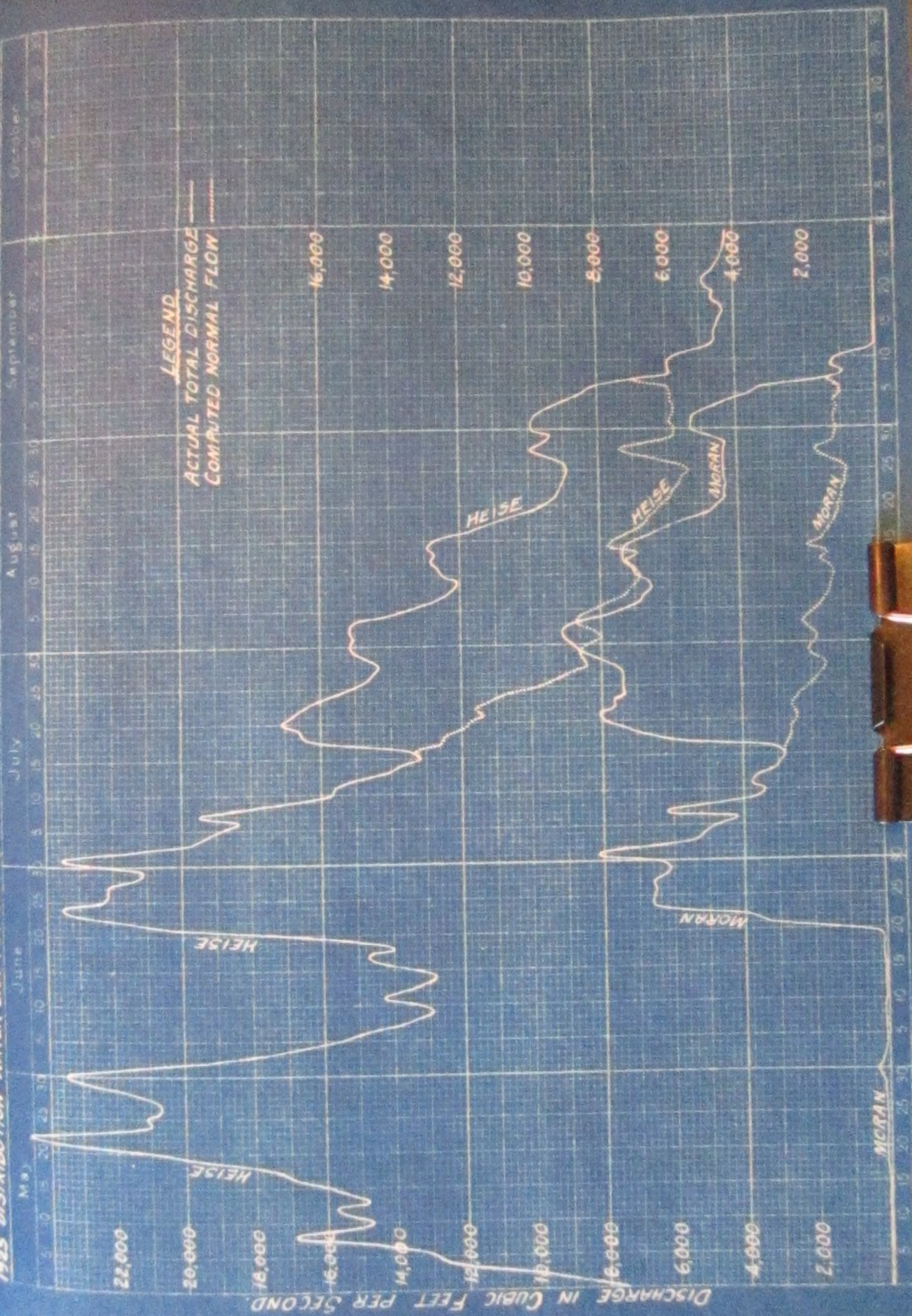
SEGREGATION OF FLOW

Plate XI shows graphically both the total discharge and the computed normal flow past the Moran and Heise gaging stations during the season of 1925. The difference between the total and normal flow graphs on any date, of course, indicates storage.

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.

HYDROGRAPHS SHOWING TOTAL FLOW AND NORMAL FLOW AT MORAN AND HEISE GAGING STATIONS 1925 DISTRIBUTION WATER DISTRICT NO. 36

PLATE XI



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.

TWIN LAKES, JACKSON LAKE AND LAKE VALCOTT STORAGE DELIVERIES

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 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 percent, 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-foot. These diagrams have all been adjusted to make them correspond to the nearest Heise dates.

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. As might be expected therefore in a season when the stream flow was greater, the average applied transmission loss for this



section for the entire period of storage delivery amounted in 1925 to only 4.1763 per cent in comparison with 5.2424 per cent in 1924.

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. 1925 computations show that upon the basis of the final seasonal loss these canals should have received at their headgates 92.9609 per cent of the stored water turned out for them at Moran. The variable loss factor applied between Heise and Lorenzo was not so troublesome in its operation and was responsible for no unfair deliveries this year, chiefly because none of the canals entirely exhausted their storage rights.

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 87.3833 per cent of the amounts released for them at the Jackson Lake outlet gates.

Plate XIII shows 1925 daily and total deliveries of Twin Lakes, Jackson Lake, and Lake Walcott storage together with tabular summaries for the season.

A total of 1,007 second-feet of Twin Lakes storage was released prior to September 7. Of this amount 444 second-feet was transferred upstream for delivery to the Enterprise Irrigation District and the remainder went to Jackson Lake stored water users as a credit balance for the Osgood canal.

TWIN

JACKSON

LAKE W[illegible]

PLATE NO XIII

8/1998 ACRE FT. STORAGE
RELEASED OF WHICH
1050 ACRE FT WAS NOT
USED BY OSGOOD, THE
EQUIVALENT BEING
CREDITED TO JACKSON
LAKE STORAGE AT
WOODVILLE

5000 ACRE FT. PERMIT
RIGHT SOLD TO OSGOOD
PROJECT OF UTAH -
IDAHO SUGAR CO.
LEAVES 268,310 ACRE
FT. RIGHT TO USRS.

10	11	12	13	14	15	16	17	18	ACT. DEL. SEC FT	ADJUSTMT SEC FT	ADJUSTED SEC FT	DELIVERY ACRE FT	T.LAKEEQ. ACRE FT
									0	0	0	0	0
									444	0	444	881	948

10	11	12	13	14	15	16	17	18	ACT. DEL. SEC FT	ADJUSTMT SEC FT	ADJUSTED SEC FT	DELIVERY ACRE FEET	JL. EQUIV ACRE FEET	JL. RIGHT ACRE FEET
									299	8	307	609	655	1200
									759	0	759	1505	1619	2000
									0	0	0	0	0	6100
									178	259	437	867	1106	5000
									81	0	81	161		
									906	0	906	1797	1933	2000
									611	217	828	1642	1766	5120
									2	76	78	155	167	1040
									725	30	755	1497	1610	4000
									0	0	0	0	0	3000
									2141	213	2354	4669	5063	17500
									12	0	12	24		
									7	0	7	14		
									452	0	452	896	964	1500
									0	0	0	0	0	355
									713	31	744	1476	1588	25000
									6886					
									0	0	0	0	0	8000
									0	0	0	0	0	42685
									15186					
258									54204	5052	74442	147654	168973	273310
- 33														
54	54								4294	256	4550	9025	10328	15000
-173	-223								1349	1349	14792	29339	33575	97238
1423	162								109279	4699	113978	226072	258713	337182
									12140	-12140			360220	
													- 1050	
													847230	847230

10	11	12	13	14	15	16	17	18						
									21232	-15186	6046	11992	13723	
0-109	-147	-180	-215	-230	-230	-230	-230	-230		0	671	1331	1523	
54	54	54	54	54	54	54	54	54		0	0	6284	- 7191	
-353	-402	-442	-531	-737	-788	-878	-878	-878		0	4640	9203	10532	
534	474	535	952	1228	834	509					667			
											8856			
											8856			

The latter had no occasion to utilize this credit, however, so the net result was to increase the holdover in the larger reservoir. An additional 690 second-feet was later turned out from Twin Lakes but as this was done for the purpose of facilitating some construction work at the outlets rather than because of any need for the water, credit was withheld and the entire flow after September 6 served only to augment the normal river discharge.

In the Jackson Lake table the "adjustment" column shows, in the case of upper valley canals, the charges which were made because of underacceptance of water ordered, during periods corresponding to those when water was wasted past Milner Dam. The quantities listed in this column for the Minidoka and Twin Falls canals represent the adjustment made for that portion of the extraordinary waste past Milner Dam not otherwise accounted for and consist in part of underacceptance penalties similar to those just mentioned and in part of prorated charges.

7,969 second-feet attributable to faulty river regulation and 4,151 second-feet chargeable directly to canals as underdraft together account for the entire extraordinary waste. In conformity with the practice of previous years the larger of these items was prorated between all lower valley canals in accordance with their seasonal use of Jackson Lake Storage.

Ordinary unavoidable seepage or waste past Milner was again prorated in accordance with the ownership of the dam at that point, viz., 5/11 to the North Side Canal Co. and 6/11 to the Twin Falls Canal Co. These charges are included in the individual daily deliveries as listed on Plate XIII.

While the exchange of normal flow for storage was not permitted during 1925, it has been found desirable, if not absolutely necessary, in order to account for all stored water, to show some lower valley storage credits. In the tables these are indicated as minus quantities.

Deliveries from Lake Walcott were limited to the Minidoka Canals whenever there was Jackson Lake Storage in the river. Stored water supplied to the canals diverting at Milner prior to July 20 and subsequent to September 11 was also necessarily furnished from the lower reservoir. Here again minus charges indicating credits at Lake Walcott are required in order to secure a complete balance of accounts.

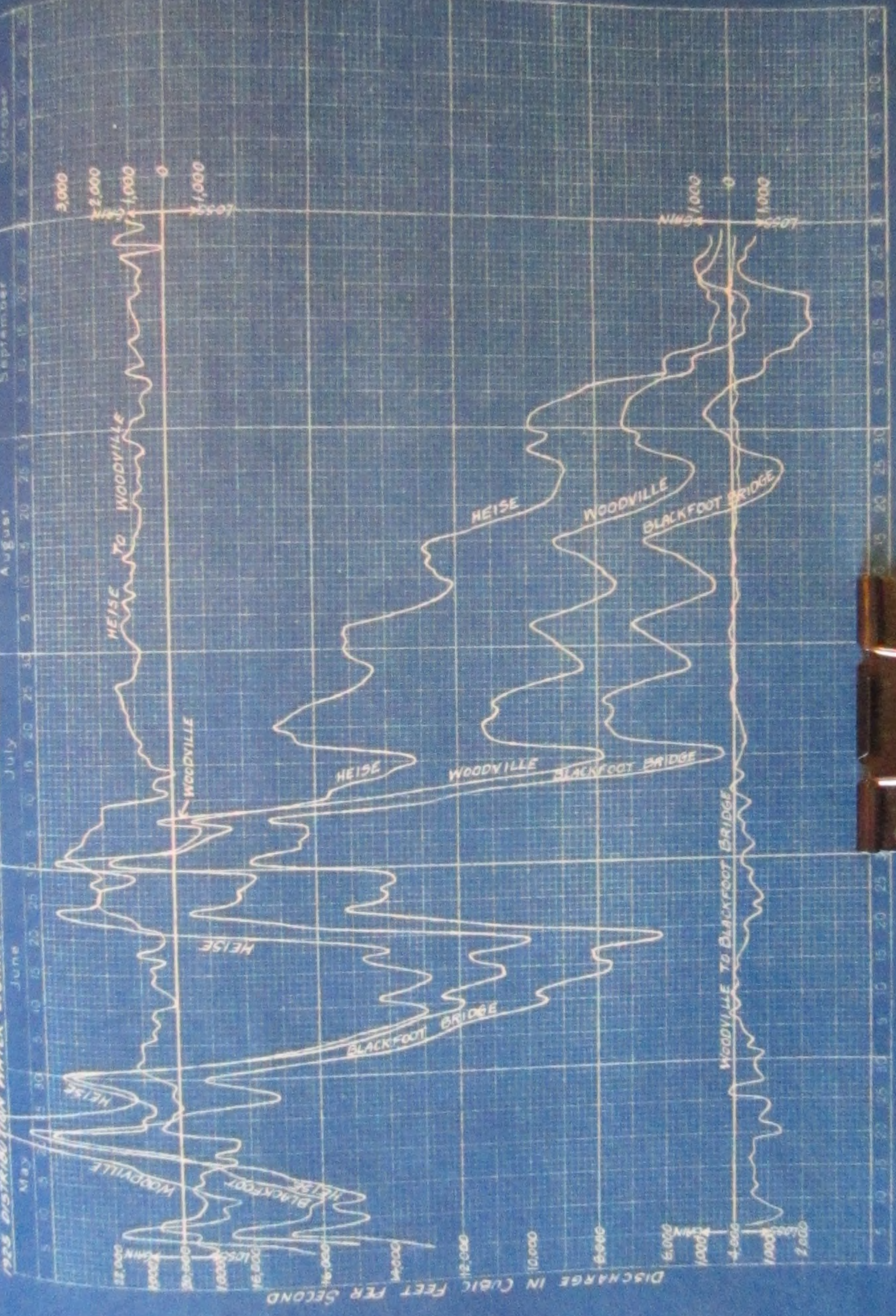
RIVER LOSSES AND GAINS

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 XIV contains hydrographs of the total flow passing the Heise, Woodville and Blackfoot Bridge gaging stations during the period from May 6 to September 28, 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.

The trend, which has been noted during previous seasons, toward increased losses coincident with sharp rises in river stage and the reverse of decreased losses or increased gains at the time of rapid drops in the river is still evident although it is somewhat less pronounced and less consistent than usual.

The extremely large gain between Heise and Woodville during the last of June and the first part of July is especially hard to explain in a satisfactory manner. After the middle of July the loss and gain curves in both sections are more uniform and when compared with similar records for the preceding year, as might be expected, indicate smaller losses or greater gains.



Variations in the quantity of water diverted by intervening canals, in the amount of return flow or loss and in the discharge of tributary streams account for the difference noted in the shape of the three hydrographs.

In order to secure a further check upon the reasonableness of the storage transmission loss of 6 per cent which has been applied for the past four years to the river section between the Woodville and Blackfoot gaging stations, one more set of measurements covering all surface waste or return flow entering the river between these points was obtained during 1925 and is tabulated as follows:

<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>
Pagal Gulch	8/28	0.00			
Roadside	"	0.10			

Woodville Bridge					
#1	8/28	0.10	#1 (Snake River Valley)	8/28	1.9
#2	"	10.30	#2	"	0.2
#3	"	0.20			
#4	"	0.10			
#5	"	0.20			
#5A	"	0.20			
#6 (Woodville)	"	15.30			
#7	"	1.20			
#8 (New Sweden)	"	32.40			

Lower Shelley Bridge					
#10	8/28	0.30	#3	8/28	0.20
#11	"	0.20	#4 (Snake River Valley)	"	7.00
#12	"	0.30	#5	"	0.20
#13-25	"	0.00	#6-10	"	0.00

Firth Bridge					
#25a	8/28	0.30	#11-21	8/28	0.00
#25b	"	0.30			
#26 (New Sweden)	"	12.60			
#27-29	"	0.00			
#30 (New Lavaside)	"	31.70			
#31	6/29	0.88			
#32 (Riverside)	"	15.90			

Porterville Bridge - - - - -					
	8/29	0.00	#22	8/28	3.00
#43-43	"	10.10	#23	"	0.00
#44 (Danskin)	"	0.00	#24 (Blackfoot	"	29.95
#45			#25	"	0.00

Blackfoot Bridge - - - - -					
	8/29	1.00	#26	8/29	0.90
#46	"	0.00	#27-28	"	0.00
#47-51	"	13.30	#29	"	4.00
#52 (Trego)	"	3.30	#30	"	0.00
#53 (Parsons)	"	0.75	#31	"	0.30
#54 (Watson)	"	67.30			
#55 (Combined wasteway)	"	0.20			
#56 (Peoples)					

Blackfoot Gaging Station (Cloughs) on Snake River - - - - -

Total Right Bank	218.53	Total Left Bank	47.27
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Most of the larger quantities noted in this summary were actually measured with a current meter, while those not measured were estimated as closely as possible by the hydrographers who made the investigation.

Analysis of these results in the same manner as those of former years, by adding the surface waste as measured inflow, changes the net average daily loss between the Woodville and Clough river gaging stations for this two day period from an indicated gain of 146 second-feet to a loss of 119.76 second-feet. The latter represents 2.30 per cent of the approximate mean river flow in the section and is nearly 2 per cent less than the average of the seven similar tests which were made prior to 1924*.

If the same methods are applied to the section between Woodville and Blackfoot Bridge an average daily net loss of 183.5 second-feet is increased to one of 359.21 second-feet which represents 7.51 per cent of the mean sectional river flow. Since no storage transmission losses are now applied

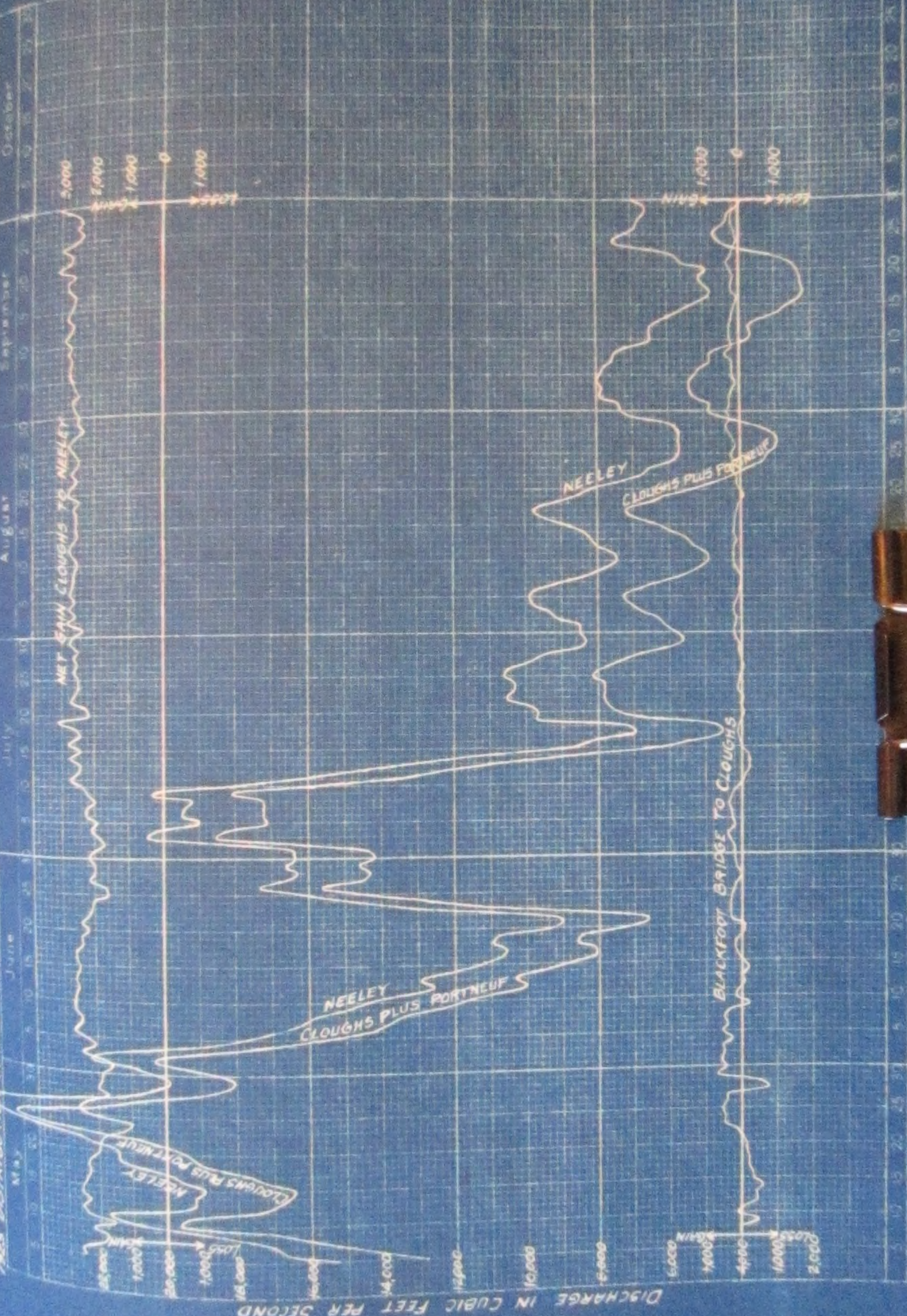
*The test made Sept. 12-14, 1924 was eliminated from consideration because of the abnormally low river stages prevailing at that time.

below the Blackfoot Bridge station, this point rather than the Clough station should probably be made the lower terminal for future tests or investigations of this character.

plate XV affords a graphical study of the ground water return flow entering between the Clough and Neeley river gaging stations and is similar in its scope to Plate XIV. The discharge of Portneuf River as measured at Pocatello has been added to the corresponding quantities passing Cloughs in order to limit the indicated inflow between the terminal river points as much as reasonably practicable to the return from adjacent irrigated land and to the increase derived from springs. This also is consistent with the practice followed in former years.

The graph showing the gain or loss between Blackfoot Bridge and Clough has been added for the convenience of those desiring to compare results secured at these two stations.

The average net gain between Cloughs and Neeley for the four months June to September inclusive amounted to 2495 second-feet which is slightly in excess of the mean for the last seven summers. To a greater extent than during any of these other years, however, a progressive increase in this gain is noted during each month of the irrigation season covering a range from the May average of 2194 to a mean of 2681 second-feet for September. Without more information concerning the source of supply for the numerous springs in the Portneuf or American Falls bottom than is now available, complete explanation of the variations in the amount of this inflow cannot be made and even partial analysis must necessarily be largely speculative in character. With these conditions in mind, the suggestion is made that during May and possibly also in June the inflow was still to some extent affected by the 1924 drouth while later in the season its total was increased as a result of the abundant 1925



water supply and the presumably greater return from adjacent irrigated land.

plate XVI shows net gain or loss graphs for the two sections between the Neeley 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.

Minidoka Project power demands were evidently somewhat greater than common, especially during the latter part of the season, and for this reason, as well as because no shortage in water supply was threatened, Project officials were quite insistent that the power head be maintained by holding Lake Walcott close to its capacity stage. Partially because of this situation and in part because of the uncertain gains derived from numerous summer rains, complete, efficient river regulation was more difficult than usual and while the demands of all lower valley canals were met, some waste of water past Milner Dam and a heavier late season draft from Jackson Lake than would otherwise have been necessary resulted.

The extra or avoidable waste during the storage delivery period is clearly indicated on the Milner hydrograph. It amounted in all to 12,140 second-feet or nearly 400 second-feet more than the previous maximum for this quantity noted in 1923.

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 188 second-feet while for the corresponding period the average net gain recorded between Minidoka and Milner was 355 second-feet.



these quantities differ materially from those of the dry season of 1924 but are very consistent with similar items of 1923.

From Neeley through to Milner, however, the seasonal means for the last three years all agree very closely and show daily net gains of 156, 160 and 167 second-feet respectively.

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 XVII is to afford a condensed comparison of the normal flow water supply available during the respective irrigation seasons 1919-1925 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 is used in the territory between the Heise and Rexburg 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 1924 report is included for the convenience of the reader:

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

SUMMARY BY MONTHS OF NORMAL FLOW CONDITIONS BETWEEN THE HEISE, REXBURG AND BLACKFOOT GAGING STATIONS IRRIGATION SEASONS 1919, 1920, 1921, 1922, 1923, 1924 AND 1925.

IRRIGATION WATER DISTRICT NO. 36

PLATE NO. XVII

YEAR	HEISE NOR. FLOW	REXBURG	BLACKFOOT RIVER	RETURN FLOW HEISE TO BLACKFOOT	NORMAL FLOW GAIN FROM STORED LOSS	TOTAL NORMAL FLOW SUPPLY	TOTAL DIVERSIONS HEISE TO BLACKFOOT	STORED DIVERSIONS HEISE TO BLACKFOOT	NORMAL FLOW DIVERS. 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	352010	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	303207	15476	201	10631	4577	334092	233547	-66484	300031	34061	34061
1925	499874	123010	4830	25290	0	653004	314594	0	314594	338410	338410

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	297375	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	265842	39689	216153	6076	6076
1925	431518	82730	4470	38754	7175	564647	331306	3577	327729	236918	236918

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

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

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

- 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.
- Columns 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 and 1925 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 two years if a check on column 11 is to be secured.

The 1924 segregation of diversions as between stored water and normal flow is complicated by the large number of exchanges which were made. For example, the minus storage shown as being diverted during June 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 1925 conditions afforded by this comparative summary illustrates very plainly certain more or less pronounced peculiarities, some of which have already been mentioned.

(1) The normal flow passing both the Heise and Rexburg stations and the total normal supply in the months of July, August and September was greater in amount than during any other year listed.

(2) The return flow entering between Heise and Blackfoot was the largest

of record during June and July and was also well sustained during August and September.

- (3) Total diversions between Heise and Blackfoot for the months of July and August and for the entire four months were the biggest in amount and those for the months of June and September the biggest with one exception of any year of this period.
- (4) More normal flow passed Blackfoot and became available for lower valley use during these four months in 1925 than in the same time during any other year since 1918 at least.

This table, therefore, serves to again emphasize the favorable character of the 1925 irrigation water supply and also indicates its comparative adequacy throughout all portions of District No. 36.

GROUND WATER

In connection with the Meeker 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 Heise gaging station.

The ground water levels throughout this triangle are believed to have a material influence not only upon the river losses between the Heise 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 season. 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.

The data secured during these three years have been summarized by groups

of wells and the relative fluctuations of each group are shown by graphs on plate No. A.

The grouping is practically the same as that used in the 1924 summary and may be outlined as follows:

Group No. 1.

23 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.

22 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.

20 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.

19 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.

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

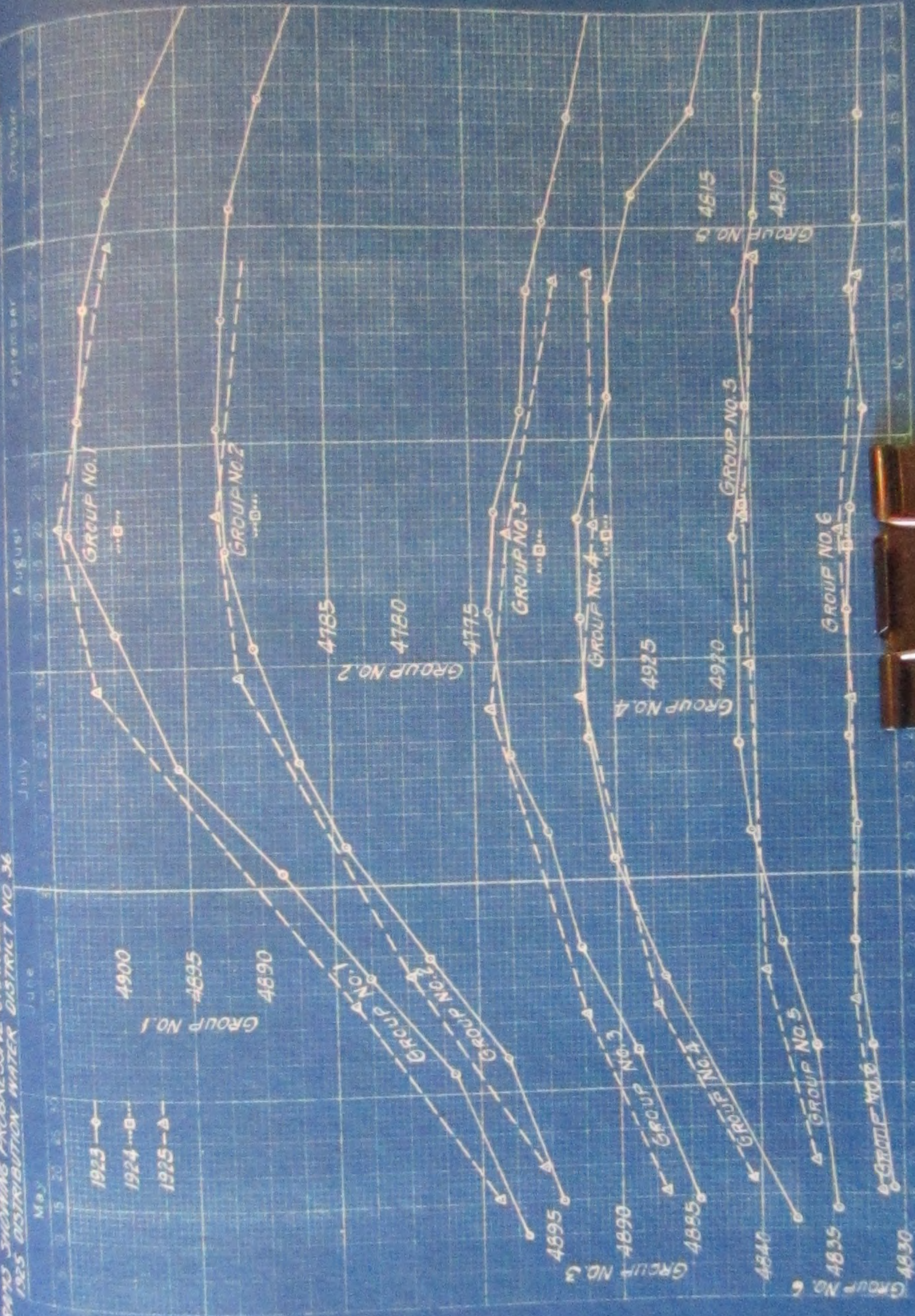
Group No. 6.

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

Month to month changes in the mean water table elevation for each group of wells may be followed on the 1923 and 1925 graphs. While this is not possible for 1924, the single set of observations secured during that year has been plotted and affords a comparison during the month of August.

Only those wells at which records were obtained during each of the three years were used for this study.

CHARTS SHOWING PROGRESSIVE CHANGES IN GROUND WATER LEVELS ON SO-CALLED MEISE-LORENZO CONE 1923-1925
 1925 DISTRIBUTION WATER DISTRICT NO. 36
 PLATE NO. A



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 3 and 6 cover districts where the wells are comparatively shallow and where sub-irrigation is practiced.

The unusually heavy return flow noted during June and July of 1925, to which reference has already been made, can doubtless be explained in part, at least, by the higher water table elevations so uniformly indicated for the early part of this season. In other respects, such as the low levels in May, the high ones in August and the general deficiencies noted in 1924, these graphs simply confirm things which have been more or less generally known heretofore.

Plate B illustrates a typical cross section of the Snake River cone taken at right angles to the general trend of the river channel at a point about two miles upstream from Lorenzo. In addition to the ground surface it also contains lines showing the August ground water table for the last three years.

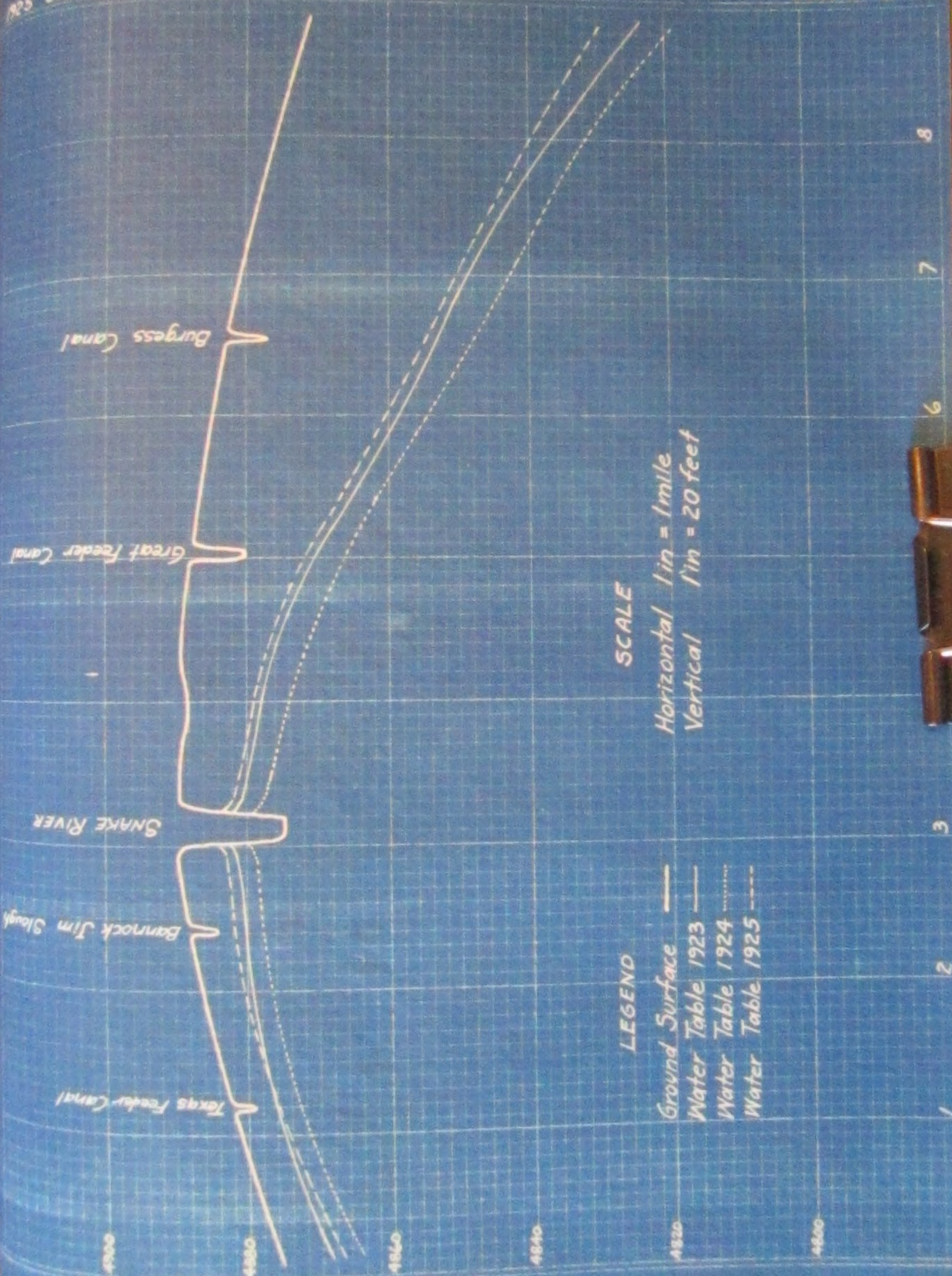
WATER DISTRIBUTION AND HYDROMETRIC WORK IN THE

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.

TYPICAL CROSS-SECTION OF SNAKE RIVER CONE ABOUT TWO MILES ABOVE
LORENZO IDAHO SHOWING AUGUST WATER TABLE ELEVATIONS 1923-1925
1925 DISTRIBUTION WATER DISTRICT NO 36

PLATE B



Summer headquarters for this work were again maintained at St. Anthony in the old St. Anthony Bank and Trust Co. building where a part time clerk was on duty from June 1 to August 31 inclusive.

The following abstract from a report submitted 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.

Leo K. Homer assisted with this work beginning May 14 and filled the combined position of hydrographer and deputy water master for the Teton River division from June 1 to August 31.

Ernest Luetjen who acted as deputy water master and river rider on the St. Anthony division prior to September 1 was given some training as a hydrographer and did very creditable work in this capacity, especially during the last month of the season.

Regular daily gage readings and reports were initiated on June 1 and were continued through the month of August. September readings were less frequent but probably suffice to furnish a basis for the preparation of reasonably dependable discharge data.

The normal stream flow was exceptionally well sustained throughout the entire season and only such regulation as was required to conform to the orders governing the main river, was necessary.

The fact that temporary transfers at no time became permissible under the 1925 river operation agreement, was detrimental to the only canal whose rights were seriously impaired by the regulation, viz., that of the Enterprise Irrigation District. Rains and a small amount of Twin Lakes storage secured from the Utah-Idaho Sugar Co. afforded partial relief, however, and prevented what would otherwise have been very serious damage to crops under that system.

No storage was released from Henrys Lake Reservoir and in consequence the hold-over for the 1926 season amounted to more than forty-two thousand acre-feet.

The irrigation water supply, was the best for many years and no serious difficulties were experienced in handling water distribution and hydrometric work, either in the Henrys Fork-Fall River section, or in the lower Teton valley. In fact, each one of these three streams furnished a surplus over and above local demands throughout the entire season, all of which helped to sustain the North Fork contribution to the main river.

Because of these favorable conditions the controversy which developed in 1924 relative to the division of Teton River water was not aggravated.

FALL RIVER CANALS

HENRYS FORK CANALS

TETON RIVER CANALS

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERGING FROM HENRY'S FORK AND TRIBUTARIES FOR JULY 1925

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	15	13	16	20	6	8	8	10	10	9	7	8	8	7	11	11	11	9	3	3	3	3	3	3	3	3	3	3	11	12	19	2850
HARRISFIELD	35	0	42	41	43	46	26	25	24	5	5	5	4	4	0	0	18	18	18	14	14	14	13	13	22	21	21	21	21	21	21	675	
MARYSVILLE	191	175	181	176	178	170	140	130	138	151	149	127	130	116	117	130	140	160	170	176	0	0	0	0	24	92	108	122	139	147	148	145	4010
TOTAL DIV ABOVE SQUIRREL	226	190	236	233	241	322	174	163	172	166	163	139	142	123	124	141	169	169	191	193	17	17	16	16	100	117	132	146	163	179	181	185	4835
FARMERS OWN	46	48	48	47	50	50	49	49	48	48	48	49	49	46	45	30	30	30	30	30	30	36	36	36	37	35	34	35	42	27	27	31	1242
ENTERPRISE	170	169	165	162	163	167	155	152	150	145	142	143	141	137	143	116	133	143	139	63	113	120	127	125	121	121	119	116	121	121	50	0	4031
BELL RIVER	7	6	5	5	5	8	6	5	7	6	4	4	6	5	5	5	4	4	3	3	4	6	5	5	5	5	4	7	6	8	7	155	
FALL RIVER	445	449	443	405	416	396	413	373	363	367	367	367	371	363	367	359	348	359	350	359	356	352	348	343	325	323	317	312	359	363	353	11438	
MCBEE	8	10	9	8	9	12	9	8	7	6	4	4	4	4	8	7	6	5	5	4	4	8	7	7	7	4	4	3	3	1	4	4	191
CHESTER	106	103	92	90	20	21	20	20	35	34	32	31	31	47	46	52	60	62	54	54	71	62	59	56	46	45	43	41	33	43	44	1575	
SILKEY	28	19	14	14	14	23	16	14	3	2	8	8	8	28	10	7	6	6	7	14	21	18	16	15	12	12	11	10	13	15	19	465	
CURR	26	25	24	24	24	18	16	14	13	12	11	20	20	20	19	20	20	20	20	23	24	31	40	39	37	34	35	34	36	30	30	780	
WHITE	5	4	5	3	4	5	3	2	1	1	0	0	1	1	0	0	0	0	0	3	5	5	5	4	3	2	4	3	1	5	3	84	
TOTAL DIV SQUIRREL TO CHESTER	841	833	805	758	705	700	687	637	628	621	617	626	651	655	642	595	606	629	617	556	642	638	643	631	582	583	572	569	597	553	496	19921	

HENRY'S 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	25	25	24	24	23	25	23	23	22	21	20	20	20	20	20	19	19	19	18	18	18	16	17	16	16	16	17	22	22	22	22	20	630
LAST CHANCE	68	76	77	74	73	92	70	65	72	56	48	42	44	60	55	49	46	46	44	44	43	45	46	46	0	0	37	32	30	30	54	1624	
ST ANTHONY UNION	377	373	368	266	266	378	342	335	333	326	351	387	391	432	459	448	474	506	501	499	405	409	405	399	404	402	402	438	440	440	440	2367	
FARMERS FRIEND	66	63	62	62	62	56	41	39	30	27	37	120	117	172	188	133	152	148	144	145	164	153	152	74	73	78	74	72	70	71	2339		
TWIN GROVES	95	92	90	90	89	79	75	73	63	61	59	59	57	130	160	150	150	150	147	147	134	130	130	99	99	117	114	114	113	113	113	3292	
SALEM UNION	127	79	77	77	76	84	80	99	99	152	150	145	144	218	234	230	210	209	230	230	238	208	176	180	176	137	137	136	135	135	137	4743	
TOTAL DIV ASHTON TO ST ANTHONY	758	708	698	593	589	714	631	634	619	643	662	773	773	1032	1116	1069	1051	1078	1084	1083	1002	961	926	754	768	753	781	836	832	833	838	25697	
EGIN	271	227	223	223	223	241	240	213	231	234	274	274	282	290	282	320	309	314	316	312	232	234	234	234	234	234	259	259	274	274	278	263	8038
ST ANTHONY UNION FEEDER	52	38	37	31	31	39	37	37	36	55	53	53	51	56	62	53	53	57	55	56	37	18	18	19	30	30	31	31	31	31	31	343	
INDEPENDENT	240	199	183	181	150	160	151	150	148	291	291	287	283	240	240	211	234	274	296	320	287	285	287	291	285	285	272	263	272	285	285	7966	
CONSOLIDATED FARMERS	219	174	170	166	164	168	166	166	163	160	137	134	150	181	174	222	224	211	168	163	227	230	222	233	251	253	255	217	217	217	245	6032	
TOTAL DIV ST ANTHONY TO REXBURG	782	638	583	571	568	608	594	566	578	740	735	768	766	767	758	806	820	856	835	831	783	787	761	781	800	764	807	790	817	853	844	22983	

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	27	27	26	26	20	23	24	23	23	15	15	15	15	15	16	14	14	13	14	14	0	0	19	18	15	14	15	15	14	13	12	514	
WILFORD	98	76	73	71	77	75	70	67	64	61	59	59	100	111	139	147	149	145	137	133	129	120	119	117	110	106	103	99	94	97	93	3032	
TETON IRRIGATION	99	92	69	43	43	39	51	41	36	38	44	48	52	61	46	61	68	73	81	78	80	93	90	89	75	62	55	52	52	58	45	1924	
GOOD LUCK	34	40	34	33	32	31	33	20	19	28	27	25	24	21	20	19	23	22	20	19	17	17	13	12	11	10	10	9	9	8	9	649	
PIONEER	48	46	39	38	38	38	27	21	21	36	35	14	13	34	37	32	31	29	25	15	14	15	17	17	16	12	12	9	10	23	23	781	
STEWART	26	26	23	23	23	23	13	13	13	13	13	31	31	29	40	38	39	39	36	32	32	27	27	27	28	26	26	29	29	20	20	220	
PINCOCK BYINGTON	13	15	15	15	15	15	15	15	15	15	15	15	15	15	14	14	16	22	20	19	18	18	19	18	18	18	18	18	18	18	18	288	
PINCOCK GARNER	0	0	0	0	0	2	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	
TETON ISLAND FEEDER	234	221	113	113	158	182	241	236	236	227	214	214	214	324	358	353	365	345	339	327	320	296	314	308	296	278	266	266	266	266	266	266	266
ROXANA	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
ISLAND WARD	29	15	23	20	26	24	32	31	29	24	13	23	22	20	17	17	18	17	13	17	39	41	42	42	41	35	35	35	35	35	35	35	
WOODMANSEE JOHNSON	47	46	45	31	32	31	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	
CITY OF REXBURG	50	54	59	59	60	62	62	62	60	60	60	68	68	65	62	59	58	57	53	51	43	48	62	62	61	59	43	42	42	42	41	1733	
REXBURG IRRIGATION	249	254	254	254	254	254	254	259	253	253	253	253	253	206	193	189	147	186	186	200	196	187	192	192	180	202	198	187	180	185	177	6494	
TOTAL DIVERSIONS	964	930	781	734	786	807	830	776	757	744	783	747	776	907	956	958	928	964	939	914	892	876	959	946	876	798	746	749	750	753	742	26600	

DAILY DISCHARGE IN SECOND FEET OF CANALS DIVERTING FROM HENRY'S FORK AND TRIBUTARIES FOR AUGUST 1925.

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	19	19	20	20	21	13	16	16	16	15	23	23	23	23	14	14	15	15	15	14	13	13	13	15	16	16	4	4	12	12	12	490
HARRISFIELD	20	20	20	20	18	18	18	16	15	16	16	17	18	18	18	18	16	16	15	15	15	15	14	14	0	0	0	0	0	0	0	406
MARYSVILLE	159	157	149	148	143	127	126	119	103	102	88	84	84	85	57	54	47	50	47	45	45	45	42	42	44	46	39	39	38	39	35	2422
TOTAL DIV ABOVE SQUIRREL	198	196	189	188	177	158	160	151	134	133	127	124	125	126	89	86	78	81	77	74	75	75	71	71	60	61	43	43	40	51	47	3518
FARMERS OWN	29	29	29	29	28	29	29	29	29	29	29	13	10	6	6	6	10	10	10	14	13	13	13	13	13	13	5	5	5	5	5	522
ENTERPRISE	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	526
BELL	4	4	5	6	5	5	5	5	5	6	6	5	5	5	5	5	5	4	4	4	6	5	4	4	4	4	5	5	4	3	4	147
FALL RIVER	358	356	368	361	359	358	361	359	361	363	369	339	326	332	335	322	326	323	323	323	260	262	260	268	260	269	265	262	251	258	258	9781
MEBEE	4	3	3	4	3	3	3	2	3	3	4	5	5	5	5	4	4	3	4	3	6	5	5	5	5	5	7	7	5	3	5	131
CHESTER	41	40	40	42	41	40	40	39	40	40	45	49	43	43	43	45	42	41	40	40	39	45	46	46	46	23	24	26	24	22	24	1183
SILKEY	18	17	17	18	16	15	14	13	14	14	16	20	17	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	245
CURR	30	29	30	30	30	30	30	30	20	20	21	22	21	23	23	22	22	21	27	26	21	21	21	21	20	20	21	21	20	20	20	733
WHITE	2	2	2	2	2	2	3	3	3	3	1	3	3	1	3	3	3	3	2	2	4	3	3	3	3	4	3	3	2	0	2	78
TOTAL DIV SQUIRREL TO CHESTER	486	480	484	492	484	483	485	480	475	476	493	456	445	478	479	477	478	468	469	471	399	356	353	351	327	332	345	341	323	330	330	13346

HENRY'S 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	
HENRY'S PARK CANALS																																	
DEWEY	20	20	21	21	21	21	21	21	21	20	21	21	21	22	21	21	21	21	21	20	20	20	20	20	20	20	20	20	19	19	19	634	
LAST CHANCE	52	52	52	53	51	50	48	48	48	42	44	52	50	52	55	51	50	50	49	48	52	50	50	49	50	52	57	8	8	24	25	1422	
STANTHONY UNION	443	409	411	389	387	387	387	386	387	389	395	400	398	249	249	249	246	244	244	240	240	244	244	240	239	242	246	242	239	237	9538		
FARMERS FRIEND	88	69	56	69	63	61	71	70	69	71	72	70	70	63	67	70	74	73	70	69	68	68	68	68	68	68	68	68	68	68	68	1410	
TWIN GROVES	94	86	79	82	78	78	84	84	84	84	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	2231	
SALEM UNION	137	139	139	141	140	140	144	144	144	144	147	170	167	137	137	137	103	103	104	103	103	105	105	105	105	105	105	105	105	105	105	64	3764
TOTAL DIV ASHTON TO STANTHONY	834	775	768	765	740	761	775	773	773	770	785	799	790	586	591	554	491	496	490	483	484	486	485	480	479	524	435	450	442	449	447	18929	
EGIN	267	254	240	241	211	211	209	241	240	238	238	241	165	111	111	144	145	166	165	192	195	192	192	195	194	192	194	195	152	148	148	6027	
STANTHONY UNION FEEDER	45	46	39	27	37	35	35	29	39	41	42	43	43	22	22	22	24	35	34	43	43	43	43	43	42	42	44	45	38	37	37	1447	
INDEPENDENT	276	276	244	221	219	191	191	189	185	185	223	279	225	175	137	155	101	189	187	187	187	146	146	146	146	172	174	174	172	172	172	5807	
CONSOLIDATED FARMERS	240	235	237	222	213	186	184	184	182	184	184	184	194	190	166	157	137	156	163	162	163	163	163	163	163	162	166	168	162	163	163	5572	
TOTAL DIV STANTHONY TO REXBURG	828	813	760	711	680	623	619	643	646	646	656	696	617	493	456	475	427	446	449	454	454	454	454	454	454	454	454	454	454	454	454	18453	

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
SIDOWAY	11	11	12	14	14	15	11	10	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	322
WILFORD	93	88	90	86	88	85	78	74	72	71	73	76	76	78	78	74	74	71	71	66	65	62	62	61	60	61	66	75	78	70	60	2283
TETON IRRIGATION	54	46	60	66	64	62	61	59	53	58	56	55	58	50	50	48	50	49	44	44	42	40	41	40	38	37	36	32	32	28	29	1461
GOOD LUCK	9	8	9	9	9	9	9	7	7	6	8	8	8	8	8	7	7	7	6	5	5	4	4	4	4	4	4	4	4	4	4	23
PIONEER	22	21	23	23	25	23	21	19	16	13	18	19	19	20	20	20	20	20	20	17	17	17	17	16	15	15	18	24	24	17	13	586
STEWART	19	19	20	9	23	22	20	19	18	18	10	10	10	11	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	409
PINGOCK BYINGTON	8	8	8	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	16
PINGOCK GARNER	13	13	12	12	14	14	15	12	11	11	15	15	15	15	15	15	14	14	14	12	11	11	11	10	10	10	10	10	10	10	10	371
TETON ISLAND FEEDER	249	249	261	261	272	261	249	249	244	244	252	261	284	199	196	181	186	181	174	184	178	174	174	171	171	171	248	272	278	249	249	6902
ROXANA	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	189
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	182
WOODMANSEE JOHNSON	36	36	38	38	42	38	29	26	24	24	30	32	33	38	37	34	34	34	32	34	32	30	30	28	28	28	26	36	50	47	38	1044
CITY OF REXBURG	40	45	47	46	49	49	49	44	43	43	43	45	45	50	51	49	46	46	44	46	43	43	41	41	40	43	43	52	51	49	49	1423
REXBURG IRRIGATION	177	173	173	173	175	180	175	159	156	161	163	168	163	171	175	175	163	172	172	163	154	153	151	150	150	137	160	206	198	194	177	5738
TOTAL DIVERSIONS	791	716	745	739	740	732	699	679	655	643	672	692	714	660	660	634	642	634	614	616	632	673	656	656	652	638	667	700	700	658	589	20432

FALL RIVER CANALS

HENRYS FORK CANALSTETON RIVER CANALS

Instead, during the latter part of the season the lower users met and finally agreed upon a plan for the future construction of a permanent type of dam and regulating works at the Forks of the river.

No special work was undertaken during September but a few needed repairs to gaging station equipment were completed in spite of the reduction in personnel which became effective at the end of August.

Actual deliveries to the canals diverting from Henrys Fork, Fall and Teton Rivers are shown on Plates XVIII, XIX, XX and XXI. Gage readings were not obtained often enough during May to warrant the inclusion of canal discharges for this month.

In the matter of recomputation of data, as well as in other respects, the records here presented correspond and are consistent with those contained in Plates III, IV, V, VI and VII.

Plates XXII and XXIII 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:

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

*Approximate means used. No recording gage records available.

DAILY SUMMARY OF DATA AT AND BETWEEN GAGING STATIONS ON HENRY'S FORK AND TRAIL

U.S. DISTRICT COURT WATER DISTRICT NO. 36

HENRY'S FORK										FALL RIVER										HENRY'S FORK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LAKE		WARM RIVER		ASHTON		SQUIRREL		CUMULATIVE ABOVE STATION		DIVERSIONS		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. 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AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER		CHESTER		GAIN ABOVE CHESTER		ASHTON		THEO. DISCH. AT CHESTER	

PLATE NO. XXIII

[illegible]

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.

Water is known to have been passing the lowest diversion dams on both Henrys Fork and Teton Rivers during the entire season. In the case of the former the quantity was estimated for the period July 16 to 21 when a shortage in the available supply was threatened, but no data were secured at other times and none were obtained at any time on the latter stream. As explained in the reports for preceding years, continuous records at these points cannot very well be secured because of the lack of good gaging station sites.

No Henrys Lake storage was released or delivered, hence the quantities shown in the stored column represent only the Twin Lakes water which was transferred upstream for delivery to the Enterprise Irrigation District.

Plate XXIV contains hydrographs for the two gaging stations on Fall River and a graph showing indicated net gains or losses above the lower or Chester station. These are plotted to coincide with the dates at the upper station.

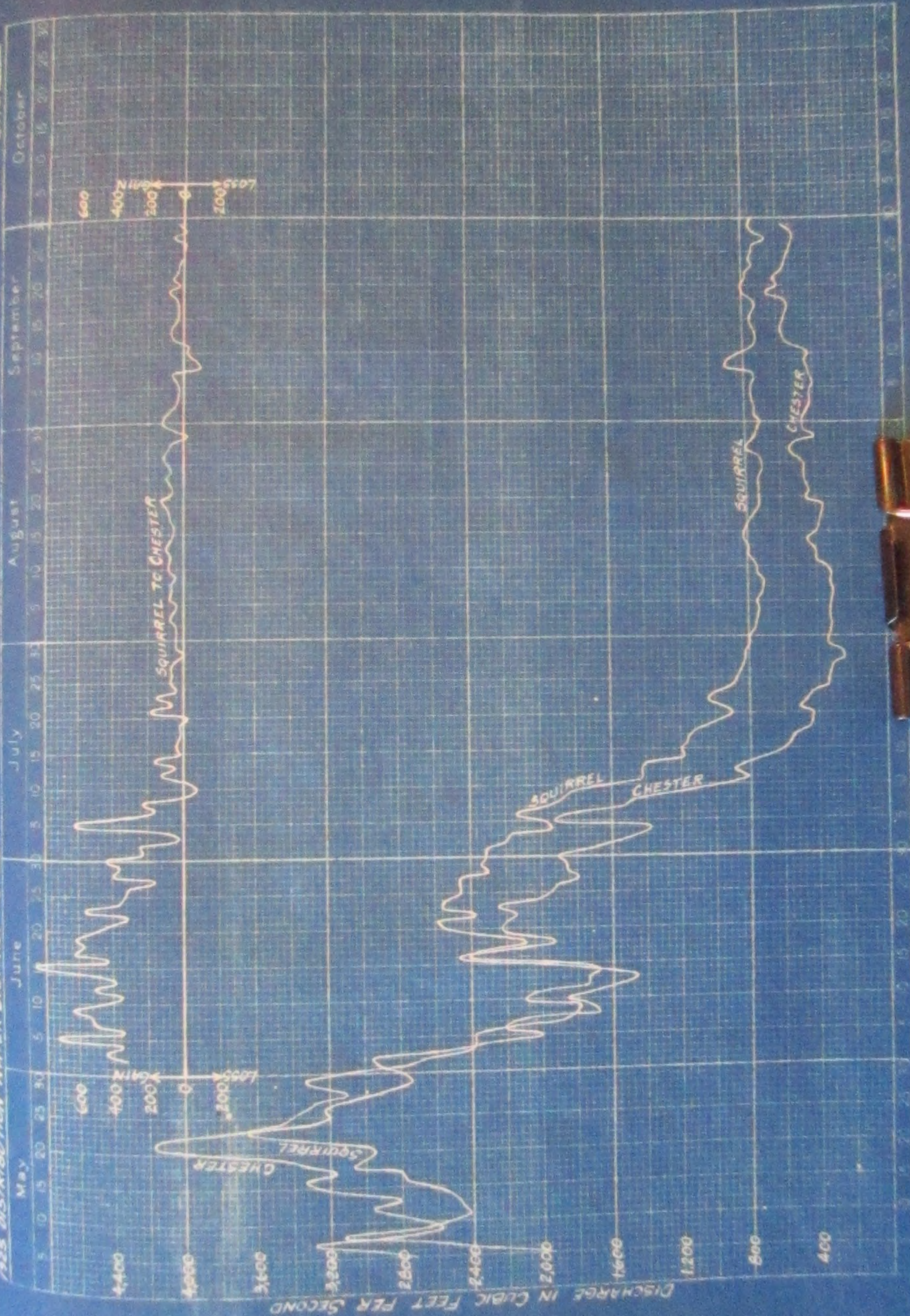
It will be noted that the gains between these two points are unusually large, particularly during the early part of the season. Attention has already been called to similar conditions which existed elsewhere in District No. 36 and except for the probably heavy early inflow from Squirrel Creek, the reasons previously advanced are doubtless also applicable in this case.

Most of the irregularities in these curves are presumably attributable to the errors introduced by the use of single daily gage readings for the record at the Squirrel station which is not equipped with a recording gage.

The hydrograph for the Rexburg station on Henrys Fork and graphs showing gains and losses above and below St. Anthony are included on Plate XXV.

NET LOSS AND GAIN BETWEEN THE SQUIRREL AND CHESTER GAGING STATIONS - FALL RIVER PLATE XXXI

1925 DISTRIBUTION WATER DISTRICT NO. 36



These curves are all plotted to agree with the Roxburg dates.

Here we find a number of irregularities which are not consistent with results secured in other sections and are consequently difficult to explain satisfactorily. This is particularly true with respect to the gain noted between St. Anthony and Roxburg during the last half of June and the first half of July. The rapid drop in river stage between July 10 and 15 no doubt resulted in a sudden and large increase in return flow from the adjacent sub-irrigated sections but this alone would hardly suffice to account for the very pronounced gain shown during this period. It seems likely, therefore, that surface waste from the different canal systems must also have been unusually heavy at this time.

DISTRIBUTION IN SWAN VALLEY

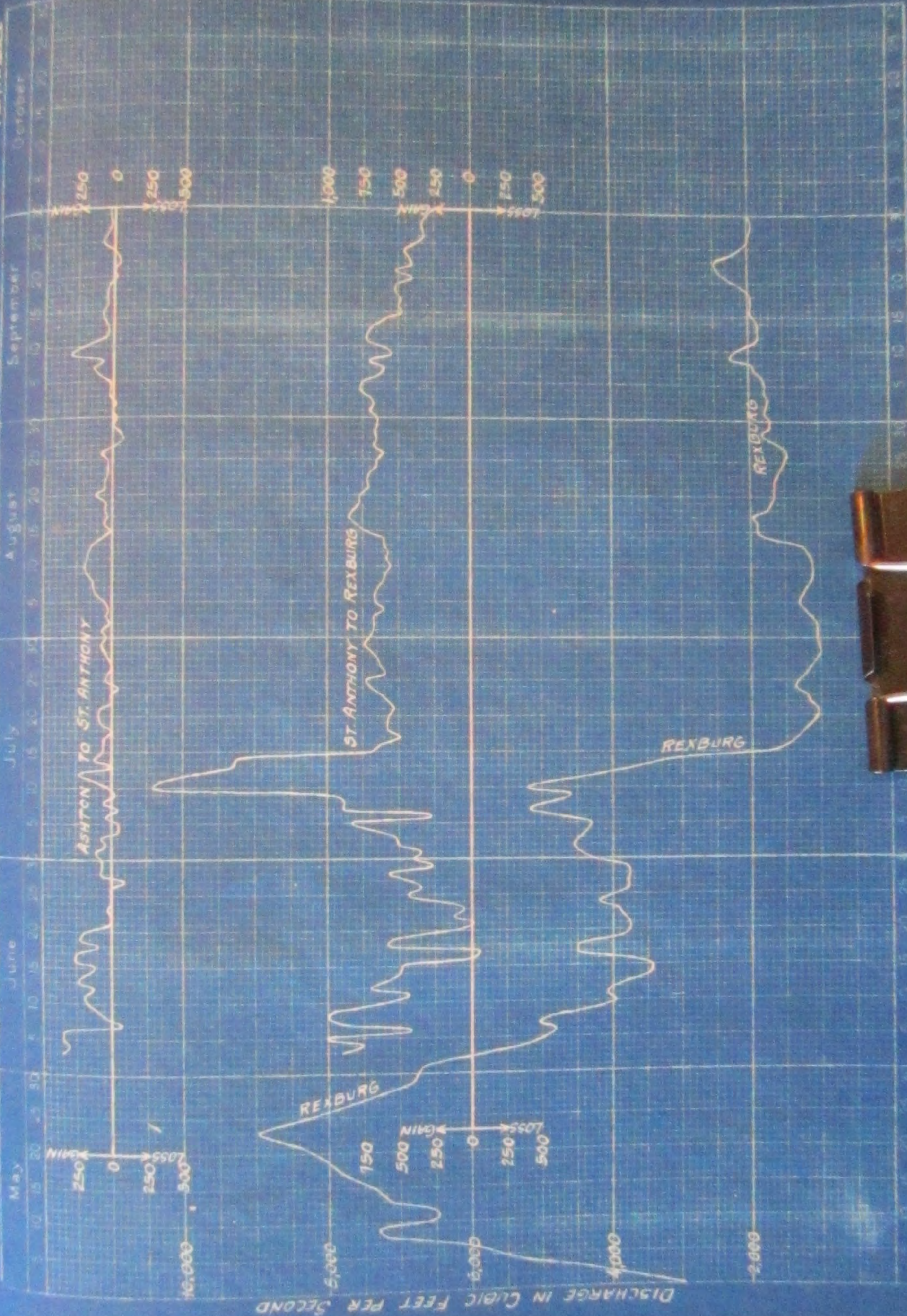
Mr. D. D. Jacobs was appointed as deputy water master for the Swan Valley section but his salary and other expenses incident to the work were paid directly by the local water users, in accordance with the custom followed during preceding years. Copies of all instructions regarding cuts and reinstatements 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.

No unusual difficulties or controversies with the respective users in this territory were reported.

DISTRIBUTION ON SAND CREEK, FREMONT COUNTY

Water distribution on Sand Creek in Fremont County in 1925 was handled strictly as a local problem. No request for the appointment of a deputy

NET LOSSES AND GAINS BETWEEN THE ASHTON AND REXBURG GAGING STATIONS - HENRY'S FORK 1925 DISTRIBUTION WATER DISTRICT NO. 36 PLATE XXX



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, 1925 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 1924. | Precipitation considerably above normal. |
| November 1924. | Slight deficiency in precipitation generally noted. |
| December 1924. | In general the coldest December of record. Precipitation (mostly in the form of snow) greater than the average. |
| January 1925. | Both temperature and precipitation slightly above the mean. |
| February 1925. | One of the warmest Februaries of record. No pronounced departure in precipitation. |
| March 1925. | Another relatively warm month with slight deficiency in precipitation. |
| April 1925. | Both temperature and precipitation above normal. |
| May 1925. | An unusually warm May. Precipitation above the average at higher elevations but subnormal at valley stations. |
| June 1925. | Precipitation well above average. Mean temperature about normal. |
| July 1925. | With but one exception the warmest July of record in Idaho. More than the usual amount of rain. |
| August 1925. | Generally a cool August. Precipitation greater than the ordinary amount for this month. |
| September 1925. | Precipitation considerably above and temperature slightly below normal. |

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 XXVI and XXVII.

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.

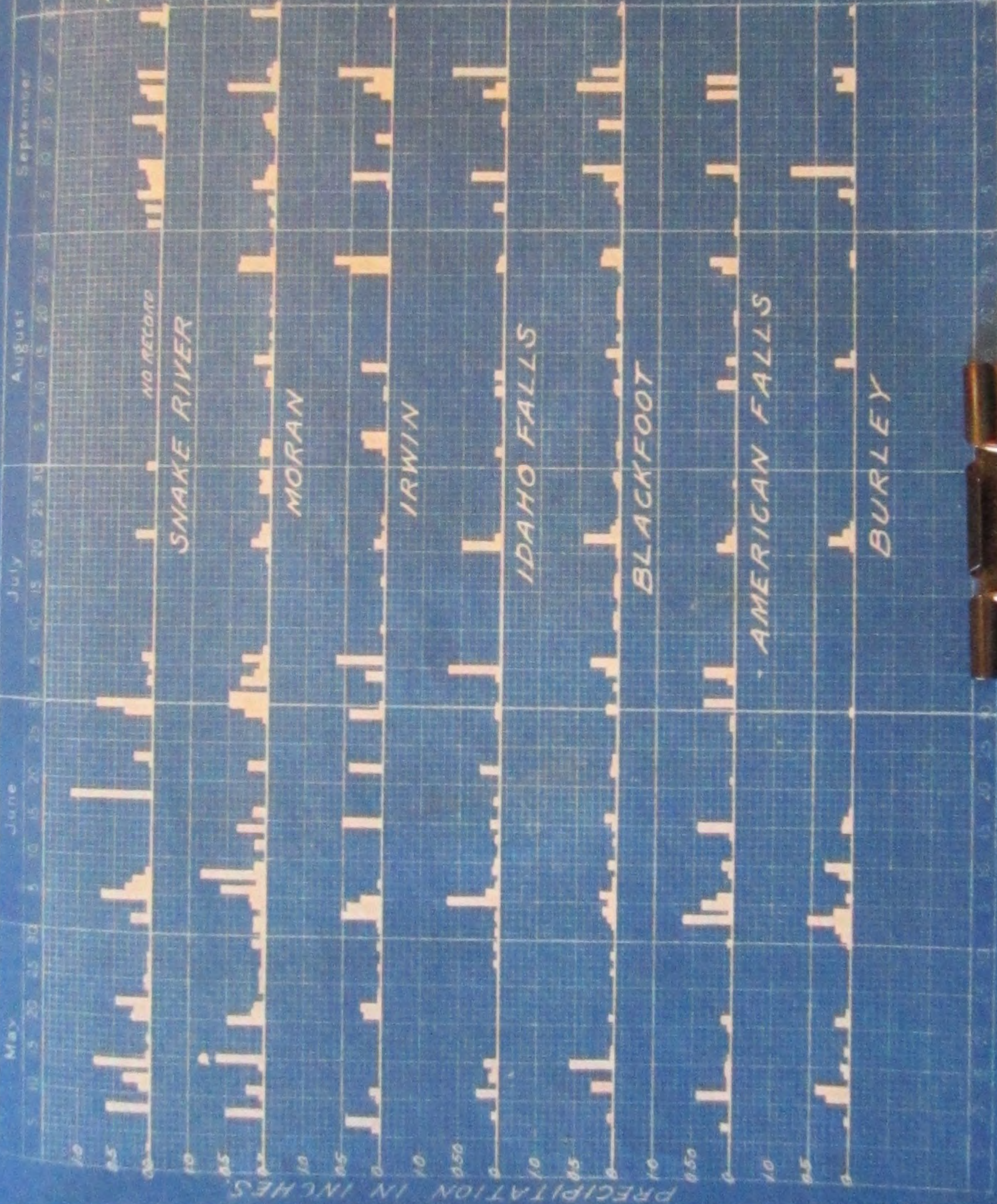
The following table summarizes precipitation data for Snake River, Moran, Irwin, Ashton, Idaho Falls, Blackfoot, Pocatello, American Falls and Twin Falls by months for the year ending September 30, 1925:

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
1924						
October	9	8	1	1.335	2.717	+1.382
November	9	1	8	1.240	0.882	-0.358
December	9	9	0	1.338	1.908	+0.570
1925						
January	9	6	3	1.815	2.158	+0.343
February	9	4	4	1.354	1.400	+0.046
March	9	1	8	1.583	1.032	-0.551
April	9	9	0	1.353	2.139	+0.786
May	9	2	7	1.753	1.359	-0.394
June	9	9	0	1.273	2.309	+1.036
July	9	8	1	0.907	1.468	+0.561
August	9	8	1	0.771	1.218	+0.447
September	9	9	0	1.080	2.193	+1.113
			Total	15.802	20.783	+4.981

The quantities shown in the column headed "Monthly Average Precipitation in inches for all years of Record" show several apparent inconsistencies when compared with the similar table which was included in the 1924 report. Analysis shows these to be almost entirely due to revisions which have evidently been recently made by the U. S. Weather Bureau in their means for the two Wyoming stations.

1935 DAILY PRECIPITATION DIAGRAM - SNAKE RIVER AREA 1935 DISTRIBUTION WATER DISTRICT NO. 38

PLATE NO. 3001



11.66

1340

905

5.26

5.86

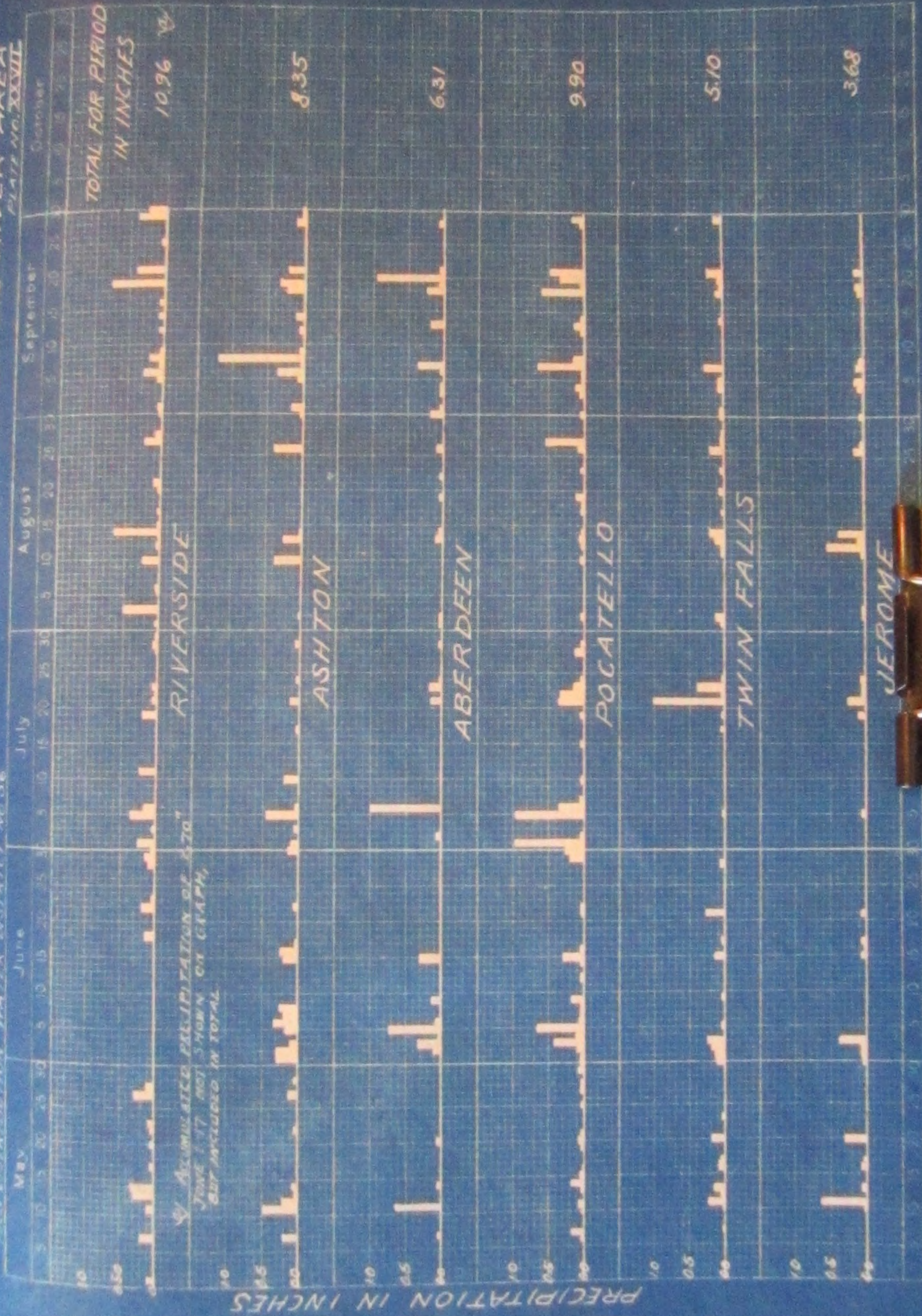
5.98

BURLEY

5.58

NO. DAILY PRECIPITATION DIAGRAM - SNAKE RIVER AREA
PRECIPITATION WATER DISTRICT NO. 36
PLATE NO. XXVII

PLATE NO. XXVII



Records have been obtained at these nine observation points for periods ranging from 14 to more than 30 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 131.5 per cent of the average while actual run-off for the same time as determined from the records secured at Moran, Wyo. (see page 10) amounted to only 119.9 per cent of a 22 year mean. The fact that much of the extra rainfall occurred during the four summer months when both ground and evaporation losses were heaviest may largely account for this percentage difference which is considerably greater than that noted in 1924.

EVAPORATION

No evaporation records were secured during the year at Jackson Lake and only fragmentary information is available for Mud Lake. Data for the U. S. Weather Bureau stations are contained in the regular publications of that organization which should be consulted by any readers of this report who are particularly interested in the subject.

NEW CONSTRUCTION AND REPAIRS

Aside from the installation of cable measuring equipment on the secondary channel at the Lorenzo river gaging station, staff gages on Lowder and Cannock Jim Sloughs and the supplemental Neeley or American Falls station at in by the Twin Falls Canal Co., all of which have previously been mentioned, no new construction work was undertaken during the year.

A complete statement of expenditures covering the year ending March 31, 1926 follows. This statement includes all general charge items which appeared in the annual water master's bill for the season of 1925, as well as everything pertaining to the work of the Idaho Falls office. No attempt has been made, however, to segregate expense for strictly hydrometric work from that for water distribution, as in many respects these phases are too closely related to warrant more than an arbitrary separation.

The items shown in the column headed "Regular Work" correspond to the total expenditures for what may be termed ordinary work, i.e., those items covered in the pre-season budget. All water users charges coming under this heading 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 three principal reservoirs in the district in proportion to their approximate available capacities. The 1924 capacity ratio was used for this purpose during April and May, following which 847 for Jackson Lake, 41 for Henrys Lake and 4 for Twin Lakes were applied.

EXPENDITURES FOR WATER DISTRIBUTION AND HYDROMETRIC WORK

April 1, 1925 to March 31, 1926

	Regular Work	Special Work
<u>Water Master, Special Deputy and Deputy</u>		
G. Clyde Baldwin, Salary Apr. 1-8, 10-13, Apr 15-Mar. 31, 11 28/30 mo. @ \$400.00	\$4773.33	
Expenses do	320.39	
Auto hire do	88.92	
Salary Apr. 9 & 14, 2/30 mo. @ \$400.00		\$26.67
Expenses do		4.50
Auto hire do		27.43

<u>Hydrographers</u>		Regular Work	Special Work
G. A. McClelland	Salary Apr. 1-14, 17-20 & Apr. 22- Aug. 15, 4 12/30 mo. @ \$200.00	\$880.00	
	Salary Aug. 16-Dec 31, 4 1/2 mo. @ 208.33	937.50	
	" Jan. 1-Mar 31, 3 mo. @ 216.67	650.00	
	Expenses do	91.58	
	Auto hire do	839.02	
	Salary Apr. 15-16 & 21 3/30mo. @ 200.00		\$20.00
	Auto hire do		5.46
Lester L. Bryan	Salary Apr. 1-Aug. 15 4 1/2 mo. @ 200.00	900.00	
	" Aug. 16-Dec. 31 4 1/2 mo. @ 208.33	937.50	
	" Jan. 1-Mar. 31 3 mo. @ 216.67	650.00	
	Expenses do	124.87	
	Auto hire do	782.34	
Mans H. Coffin	Salary Apr. 29-May 8 & May 10-Sept. 30, 51/30 mo. @ 150.00	755.00	
	Expenses do	15.75	
	Auto hire do	1056.90	
	Salary Apr. 21-28 & May 9, 9/30 mo. @ 150.00		45.00
	Expenses do		16.00
	Auto hire do		27.69
Wendell Dawson	Salary May 18-22, May 24-June 4, June 6- Sept. 28 & Sept. 30, 4 10/30mo. @ 150.00	650.00	
	Expenses do	16.50	
	Auto hire do	758.29	
	Salary May 23 & June 5, 2/30mo. @ 150.00		10.00
	Auto hire do		10.53
Leo K. Homer	Salary May 14-Aug. 31, 3 17/30 mo. @ 140.00	499.33	
	Expenses do	31.68	
	Auto hire do	690.56	

Deputy Water Masters

T. W. Luetjen	Salary June 1-Aug. 31, 3 mo. @ \$50.00	\$150.00	
	Auto hire do 3 mo. @ 50.00	150.00	
Ernest Luetjen	Salary June 1-Sept. 30, 122 da. @ 4.00	488.00	
	Auto hire do 122 da. @ 3.25	396.50	
Ira Moore	Salary June 1-July 16 46 da. @ 4.00	184.00	
	Auto hire do 46 da. @ 3.50	161.00	
W. J. Kremer	Salary Sept. 1-15 15 days @ 2.00	30.00	(part time)
	" July 17-Aug. 31, 46da. @ 4.00	184.00	
	Auto hire do 3.50	161.00	
Wm. Sauer	Salary June 1-Aug. 31, 92 da. @ 4.00	368.00	
	Auto hire do 3.50	322.00	
G. A. McCurdy	Salary do 4.00	368.00	
	Auto hire do 3.50	322.00	
D. G. Taylor	Salary do 4.00	368.00	
	Auto hire do 3.00	276.00	
W. N. McConnel	Salary June 1-Sept. 30, 4mo. @ 40.00	160.00	

Stenographers

					Regular Work	Special Work
Mrs. Bessie M. Rees	Salary	Apr. 1-Dec. 31,	9	mo. @ \$125.00	\$1125.00	
Alfreda Haggerty	"	Dec. 7-Mar. 31,	3	24/30 @ 110.00	418.00	
Mrs. Wilma Adams	"	June 1-Aug. 31,	3	mo. @ 40.00	120.00	

Gage Readers

J. A. Clough	Salary	June 1-Sept. 30,	122	days @ 1.00	122.00	
"	"	Apr 1-May 31 & Oct. 1-Mar 31				
			8	mo @ 10.00	80.00	
Eva Davis	"	May 6-June 2,	27/30	Mo @ 12.00	10.80	
"	"	June 3-Sept. 30,	120	days @ 1.00	120.00	
W. H. Kremer	"	July 17-Aug. 31	46	days @ 1.00	46.00	
Mrs. Irvin Sieport	"	Apr 1-May 9,	1	9/30 mo @ 5.00	6.50	
"	"	May 10-Sept. 30,	117	trips @ 0.75	87.75	
"	"	Oct. 1-Nov. 28,	1	28/30 mo @ 8.00	15.47	
G. S. Gilham	"	June 1-Sept. 30,	4	mo @ 10.00	40.00	
Harold Fuqua	"	Apr. 14-May 31, Sept 1-30 &				
		Oct. 17-Nov 30,	4	1/30 mo @ 5.00	20.17	
"	"	June 1-Aug. 31,	3	mo @ 12.00	36.00	
D. G. Taylor	"	Sept. 5 & 12	2	trips @ 2.00	4.00	
A. J. Ayers	"	July 9-Sept 30,	2	22/30 mo @ 50.00	136.67	
H. E. Sheppard	"	Apr. 1-May 2	1	2/30 mo @ 15.00	16.00	
"	"	May 3-31		28/30 mo @ 10.00	9.33	
J. D. Laetjen	"	Apr. 1-May 31 & Sept. 1-Mar.				
		31	9	mo @ 9.00	81.00	
Ira Moore	"	Apr. 1-July 11 (Willow Cr.)				
			11	trips @ 2.00	22.00	
J. S. Howard	"	June 1-Nov. 30,	6	mo @ 15.00	90.00	
Ira Moore	"	Apr. 3-May 2 (Snake R.)	1	mo @ 8.00	8.00	
S. M. Boyle	"	Dec. 1-Mar. 31,	4	mo @ 15.00	60.00	
A. J. Cheney	"	May 19-July 4,	1	16/30 mo @ 8.00	12.27	
B. F. Smith	"	Oct. 3-Dec. 29 & Mar. 5-				
		31,	34	trips @ 1.00	34.00	
"	"	Dec. 30-Mar. 4,	65	trips @ 0.60	39.00	
R. E. Reid	"	Apr. 1-July 31,	4	mo @ 10.00	40.00	
C. N. Kemper	"	Apr 1-July 31	4	" @ 4.00	16.00	
W. J. Kremer	"	July 18 & 25 (Willow C.)				
			2	trips @ 2.00	4.00	
William Sauer	"	May 8-26 (Willow Cr.)	3	trips @ 2.00	6.00	
John Espey	"	May 4-16	13	days @ 7.50	97.50	
C. A. McCurdy	"	May 17-31	15	" @ 7.50	112.50	
Wm. Sauer	"	May 3-31	29	" @ 7.50	217.50	
Mrs. J. F. Johnson	"	Apr. 13-May 8,	26/30	mo @ 5.00	4.33	

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John Lee	Salary	3 days @ 5.00 per day	15.00
	Expenses	do	3.20
	Auto hire	do	5.98

	Regular Work	Special Work
Materials, Labor and equipment for gaging stations	\$364.76	\$281.52
Rent, St. Anthony office June 1-Sept. 30, 4 mo. at \$20	80.00	
Telephone and telegraph	365.48	
Premium and filing fees on official bonds	23.25	
Field and office supplies	157.76	
Interest on borrowed money	<u>167.22</u>	
Total	\$24,978.40	\$474.80

SOURCES OF REVENUE

Normal Flow Fund (Regular)	\$12564.43
Normal Flow Fund (Special)	24.18
Stored Water Users (through State) Jackson Lake	7900.33
U. S. Geological Survey (Regular)	1640.59
U. S. Geological Survey (Salary adjustment, etc.)	118.51
U. S. Indian Service	316.34
State of Idaho (Cooperative Stream Measurement Fund)	1887.99
North Fork Reservoir Co. (through State)	434.83
Utah-Idaho Sugar Co. (through State)	41.13
Minidoka Irrigation District	132.70
Twin Falls Canal Co.	185.89
North Side Canal Co. Ltd.	168.04
Progressive Irrigation District	17.60
Hillsdale Irrigation District	<u>20.64</u>
Total	\$25453.20

*FUNDS AVAILABLE APRIL 1, 1926

Normal Flow Fund (a)	\$988.40
U. S. Geological Survey (b)	238.32
State of Idaho (c)	
Cooperative Stream Measurement Fund	1350.37
Jackson Lake Stored Water Users (a)	14.18
North Fork Reservoir Co. (d)	<u>14.19</u>
	\$2605.46

* 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, 1926.

- (a) Additional funds probably available on or before June 1, 1926.
- (b) Represents amount available for expenditure prior to July 1, 1926.
- (c) Amount allotted for expenditure prior to July 1, 1926
(Subject to slight change)
- (d) Represents unexpended portion of money advanced.

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 60 copies of the 1924 report which was paid direct by the State Commissioner of Reclamation.

The total annual expenditure amounting to \$25453.20 is less than the total for the preceding year by \$8531.34. This reduction is due chiefly to the shorter period during which canal diversions were regulated and to the elimination of most of the special investigation work.

WATER RIGHTS

No permanent changes of material consequence were recorded during the past year in the decreed rights of District No. 36 water users, hence the diagrams which were presented under this heading in the 1924 report have in this instance been omitted.

RECOMMENDATIONS

The very extensive use which was made in the 1924 season of the privilege then accorded for the exchange of normal flow for storage emphasized both the great benefits to be derived from such a practice and also the necessity for imposing sufficient restrictions to prevent injury to any valid rights.

Unquestionably both this practice and the longer used temporary transfer plan encourage the use of water under modified rotation systems of delivery which result in obtaining a higher water duty than is possible if the distribution is restricted to the continuous flow basis proscribed in practically all normal flow water rights.

It would seem therefore that irrigation engineers, canal officials and others who are interested in promoting the general welfare of Snake River Valley should try to evolve a method whereby the good features of such systems can be utilized without detriment to any one. If this can be done the matter should be presented to the next session of the state legislature for the enactment of whatever laws may be required to make the plan practically effective.

Continued support of the Committee of Nine in their efforts to settle disputes, adjust difficulties and eventually provide for a solution of the

many complicated water distribution problems of the District is once more urged. Much can undoubtedly be accomplished by such a representative group of men and even though material differences of opinion may exist at times between individual members, frank discussion of controversial matters will often lead to equitable settlements without resort to expensive litigation.