

**WATER DISTRIBUTION
OF
BOISE RIVER
DISTRICT 63
1982**

REPORT ON
CANAL DELIVERIES FROM
BOISE RIVER
AND
DIFFERENT FEATURES AFFECTING THESE
DELIVERIES FOR THE IRRIGATION SEASON
OF 1982

(DATA FOR THIS REPORT GATHERED BY THE
WRITER WHILE ACTING IN THE CAPACITY OF
WATERMASTER OF THE BOISE RIVER.)

(COOPERATIVE DATA ALSO FURNISHED BY
THE UNITED STATES BUREAU OF RECLAMATION.)

BY

HENRY KOELLING

WATERMASTER, BOISE RIVER

CHARTS

1. Shows daily discharge from Lucky Peak Reservoir for current year.
2. Shows the natural flow of the Boise River by days for the period from 1941 to date.
3. Shows mean daily flow of Boise River for an 80 year period.
- 3A. Shows natural flow for years when production exceeded 2,700,000.
4. Shows monthly and annual flow of Boise River in acre feet, for the irrigation year of 1894 to date.
5. Daily discharge of all canals for the irrigation season.
6. Summary chart in acre feet showing monthly and total canal diversion for the irrigation season.
7. Summary chart showing total annual diversions for all Boise Valley canals beginning in 1967.
8. Shows acre feet per acre diverted by Boise Valley canals for each irrigation season beginning 1965.
9. Shows acreage under all canals in the Boise Valley.
10. Storage used for the irrigation season.
11. Reservoir space allocation of all reservoirs located on the Boise River.
12. Shows daily discharge of all principal tributary streams feeding water to the Boise River below Diversion Dam for the irrigation season 1 April thru 15 October.
13. Summary chart in acre feet showing monthly and total drain discharges for the irrigation season.
14. Chart showing entire Boise River at Diversion Dam, canal deliveries, tributary gain, seepage gain and net gain, by months in acre feet, for the irrigation season.
15. Shows total discharge of all drains in Drainage District #2 for the irrigation season.
16. Chart showing total discharge of all drains in Drainage District #3 and #4 for the irrigation season.
17. Summary chart of the return flow to Boise River between Diversion Dam and Snake River for the last 15 years.
20. Shows distribution of drainage water to various canals.
21. Shows Intervenor Decrees on Boise River (Intervenor in the Stewart Decree) giving priority number, date and amount decreed.
22. Shows changes in point of diversions of decreed rights on the Boise River.
23. Shows transfers of decreed rights on the Boise River.
24. Condensed chart of Stewart Decree showing dates of priority and amount decreed.
25. Chart showing the Stewart, Intervenor and Bryan Decrees grouped under canal headings.
26. Charts in second feet showing the Stewart Decreed rights and the approximate natural flow needed to fill the rights to 100%, 75% and 60%.
27. Chart in second feet showing the Bryan Decreed rights and the approximate natural flow needed to fill the rights to 100%, 75% and 60%.

ORGANIZATION

The annual meeting of Water District #63 was held January 11, 1982 at 10:00 a.m. in the Valley View Grange Hall, Ada County, Idaho.

Mr. Henry Koelling was elected Watermaster and was authorized to hire the necessary assistants to regulate the distribution of the waters of Water District #63.

The following Waterusers were elected to serve on the Advisory Board:

M. A. Watkins, Chairman
Howard Kent, Secretary
Bob Brown
Henry Dalrymple
John Gale
Vernon Haumann
Carl German
Fred Houston
Wendell Knight
L. C. Mace
L. L. Murgoitio

Any other meetings held during the year are subject to call by the Chairman of the Advisory Board.

Cooperative assistance is rendered by the Boise Project Board of Control in current meter work for which proper remuneration is made.

We take this opportunity to express our appreciation and gratitude for the assistance of the Department of Water Resources and the Central Snake project office of the Bureau of Reclamation.

DECREEES

Stewart Decree:

The old water rights from the Boise River are included in the decree in the case of FARMERS COOPERATIVE DITCH COMPANY, a Corporation, vs. RIVERSIDE IRRIGATION DISTRICT, LTD., a Corporation, et al, signed by District Judge George H. Stewart, January 18, 1906, commonly referred to as the "Stewart Decree". This case was appealed to the Supreme Court and affirmed as to priorities and acreage, but remanded to the District Court for the sole and only purpose of determining the duty of water. In 1914 testimony was taken before the Court as to the duty of water and was transcribed, which consists of approximately 2,630 typewritten pages. The final decree of the court as to the duty of water has never been entered. However, Judge E. L. Bryan, Judge of the District Court of the Seventh Judicial District of the State of Idaho, issued a continuing order on May 31, 1919, which is still in effect, providing for the distribution of waters of the Boise River in the following manner, to-wit:

"The various rights, as adjudicated in the so-called "Stewart Decree", shall receive 100 percent, until the natural flow of the waters of the Boise River shall decrease, until all the rights in said decree cannot receive 100 percent, at which time the various rights as adjudicated in the so-called "Stewart Decree" shall first be cut to 75 percent of the amount of water decreed by the "Stewart Decree" as the natural flow of the Boise River decreases, beginning with the latest rights and proceeding to the

earliest rights in the order fixed in said Stewart Decree, and after all of the rights shall have been reduced to 75 percent of the amount fixed in the Stewart Decree, should the natural flow of the waters in Boise River decrease below the amount necessary to supply said 75 percent of the water rights as decreed in said Stewart Decree, then the various rights beginning with the latest and proceeding to the earliest, as aforesaid, shall be reduced to 60 percent of the amount specified in the Stewart Decree, and 60 percent of the amount decreed in the Stewart Decree is hereby fixed and determined as the highest duty of water for year 1919.

Bryan Decree:

In the SEVENTH JUDICIAL DISTRICT of the State of Idaho, Judge Ed. L. Bryan signed a decree on February 14, 1929, in the case of PIONEER IRRIGATION DISTRICT vs. AMERICAN DITCH ASSOCIATION, et al, commonly referred to as the "Flood Water Suit", or "Bryan Decree". All rights decreed in this case are made subsequent to the Stewart Decree. This case was appealed to the Supreme Court where it was upheld as to some of the rights involved but remanded to the District Court for retrial on the question of the duty of water and also for the purpose of determining certain other rights.

On January 30, 1932, Judge A. O. Sutton signed an order temporarily establishing the various rights in the Flood Water Suit and providing for a duty of water similar to the "Sliding Scale" in the Stewart Decree. On June 23, 1933, Judge Chas. E. Winstead of the THIRD JUDICIAL DISTRICT, sitting as Judge in the SEVENTH JUDICIAL DISTRICT for the State of Idaho, signed a continuing order making the order of Judge Sutton for 1932 effective for 1933 and continuing. This order has remained in effect since that time.

Chart 26 relates to the Stewart Decree and shows the following information: Number of priority, name of canal presently diverting, amount of decree in second feet, showing 100 percent, 75 percent and 60 percent, and section of river in which point of diversion is located. It also shows the amount of natural flow necessary at Diversion Dam to fill the various rights in the Stewart Decree, including intervenors, to 60 percent 75 percent and 100 percent. It is assumed that the return flow to Sections 2 and 3 of the river would fill the rights with points of diversion in those sections of the river to 75 percent of the amount decreed.

Chart 27 shows the decreed rights contained in the Bryan Decree or Flood Water Decree. It shows the date of priority, name of water user to whom the decree was issued, amount of decree in second feet, showing 100 percent, 75 percent and 60 percent. It also shows the amount of natural flow necessary at Diversion Dam to fill the various rights in the Flood Water Decree to 60 percent, 75 percent and 100 percent.

TRIBUTARY GAIN

Data was gathered and compiled on all principal tributary streams feeding water to the Boise River below Mores Creek.

Chart 12 shows the daily discharge of the tributary streams.

Chart 13 shows a monthly summary of discharges of the drains.

NET GAIN

Chart 14 shows the total flow of the Boise River passing Diversion Dam, canal deliveries, and gain to the river by months in acre-feet.

RIVER FLUCTUATION

The river flow was very steady, there being very few fluctuations. A change of gates at Lucky Peak sometimes results in a slight change in

discharge. A remote control gage, which makes a permanent record and shows the gage height at all times in the power house at Diversion Dam, has been installed and it gives a fair record of the flow below Diversion Dam. It varies if the flow is changed from the generators to the roll gate or over the check boards.

CLASSIFICATION OF RIVER

The Boise River naturally divides itself into three separate and distinct parts. Section 1 includes the part of the river which lies between the Government Diversion Dam and the Caldwell High Line Canal about a mile below the town of Star. Section 2 includes that section which lies between the Caldwell High Line Canal and the Notus Bridge. Section 3 includes that part of the river between the Notus Bridge and the Snake River.

SECTION I

Chart 14 shows the condition that existed in the entire river during the period July 1 to November 1. This section is under complete regulation by the watermaster. All water is measured and divided according to the decrees and licenses, which are set by the courts and State laws.

SECTION 2

All water in this section is measured, but operation is more liberal than in Section I, due to return flow, so regulation is somewhat relaxed with very little storage water required.

SECTION 3

This section of the river is operated without any regulation what so ever, but it is measured and recorded the same as Section I and 2.

The return flow to Section 3 was sufficient to take care of all rights in this section during most of the season, and therefore no regulations were required. In fact, during all the years on record on the distribution of the waters of Boise River, beginning with 1914, there has been only one year - 1931 - during which it was necessary to regulate diversions from this section of the river, and during that year it was not necessary to run water past the Notus Bridge to supply the rights below.

The final determination of the duty of water, both in the "Stewart Decree" and the "Bryan Decree", is still pending in the District Court at Caldwell, Idaho. The writer's views are pretty well expressed in the following quotations for "REPORT ON CONSUMPTIVE USE--NET DUTY OF WATER--As Related to the Proper Adjudication of Water Rights on the Boise River", by W. G. Steward. Mr. Steward was formerly employed by the United States Reclamation Service in charge of Hydrographic work on the Boise River, and also for several years he was an instructor at the University of Idaho on the same subject. He has made a very comprehensive study of the duty of water, especially on the Boise River, and was well qualified on that subject. For these reasons the following quotations are submitted with the endorsement of the writer:

1. "That a duty of water, if established, should be subject to change when conditions warrant. Conditions are continually changing. Our knowledge and methods of irrigation are improving. An arbitrary duty that would meet all requirements today might prove entirely inadequate fifty years from now. Posterity should not be handicapped by our present day limitations.

2. "A duty, if established now, should be construed to mean a headgate,

duty, or duty at the point of diversion.

3. "The best information at hand today would indicate that a duty, if established, should conform very closely to the so-called "sliding scale", as provided in the order issued by Judge Ed. L. Bryan on May 31, 1919. That if the present law does not permit the court to render a decision on the duty of water conforming closely with the above suggestions, the water users of the valley should arrange, by stipulation, for the delivery of water along the above suggested lines until such time as conditions have changed so as to warrant new distribution.

4. "That an exception to the "sliding scale" should be made in the case of porous-gravel, river bottom lands, lying adjacent to and under the upper section of the river as per the Stewart Decree, to the extent that these lands should be allowed to divert such amount of water as their crops require and at such times as it is needed, because no matter how much is diverted, all but a very small amount almost immediately returns to the river flow. Most canals have been required to purchase storage water to supplement their natural flow rights.

5. "That said lands entitled to above exceptions should be determined before a decree is entered or stipulation is signed."

The court order providing for the "sliding scale cuts", under which the Boise River has been operated for about fifty years, has proven very satisfactory when the entire valley is taken into consideration. This court order is given in full on Page 2 of this report.

Chart 6 shows the amount in acre-feet diverted each month and the total amount diverted for the season by the canals in the Boise Valley.

Chart 8 is a table showing acre-feet per acre diverted by Boise Valley canals for each irrigation season beginning in 1965. A similar record showing

the acre-feet per acre diverted for 50 principal canals in the Boise Valley, beginning 1916, and one beginning 1947, may be found in previous annual reports. The amount shown under the column "Acre Feet Per Acre" cannot be construed as a duty of water for the lands of the Boise Valley, due to the large and varying quantities of return flow water picked up by many of these canals.

DRAINAGE

Chart 15 shows the total drainage discharge for Drainage District No. 2 for the current season and a summary for the same. This drainage district embraces an area of 29,000 acres situated on the north side of Boise River between the City of Boise and the canyon near Caldwell.

Chart 16 is a table showing the discharge of all drains in both Drainage Districts No. 3 and No. 4. Drainage District No. 3, frequently referred to as the "South Boise Drainage District", is situated in South Boise. This district, comprising an area of 4,200 acres, has four drainage canals, all outlets emptying into the Boise River. Drainage District No. 4 frequently referred to as the "Thurman Drain", comprises an area of approximately 2,500 acres and is situated south of the Boise River and opposite the town of Eagle. This district has only one outlet to the Boise River.

Chart 17 is a table showing the average return flow to the Boise River for a 15 year period.

Chart 20 shows the method used in apportioning the drainage water to the various canals under the several court orders.

INTERVENORS

Chart 21 is a table showing the decrees obtained by intervenors in the case of Farmers Cooperative Ditch Company, Plaintiff, vs, Riverside Irrigation District, Ltd., et al, Defendants.

CHANGES IN POINT OF DIVERSION

Chart 22 is a table showing the change in the point of diversion of

decreed rights on the Boise River as recorded in the office of the State Department of Water Administration.

TRANSFERS

Chart 23 is a table showing the transfer of decreed rights on the Boise River as recorded in the office of the State Department of Water Administration.

STEWART DECREE

Chart 24 is a condensed table of the Stewart Decree.

Chart 26 is a table showing decreed rights contained in the Stewart Decree and the natural flow at the Diversion Dam necessary to fill the same.

STEWART AND BRYAN DECREES GROUPED ALPHEBETICAL BY CANAL HEADINGS

The tables, in charts, have been compiled for the benefit of those canal companies which have more than one date of priority. These tables also include the transfers and changes in point of diversion. They show the date and amount of each priority and the total amount decreed.

BRYAN DECREE

Chart 27 is a table showing decreed rights contained in the Bryan Decree and the natural flow necessary at the Diversion Dam to fill the same.

WATERSHED

The following is quoted from the 1947 report:

"The question of watershed protection will always be of paramount importance to the water users of Boise Valley. It is regrettable, however, that in matters of this kind the people of the valley generally are too much inclined to take the attitude of "Let George Do It". The preservation of present day water users but for generations yet to come, should have the

constant attention and consideration of all concerned. It is the opinion of the writer that this resource, which is of such importance to the entire populace of the Boise Valley, should remain under federal control.

FLOOD CONTROL

With three dams on the river, flood damage should be held to a minimum.

there will still be some damage along the river from erosion until such time as protecting levees can be built in certain places on both banks of the river.

An agreement has been entered into between the Army Engineers, the Bureau of Reclamation and the water users whereby Arrowrock, Anderson and Lucky Peak Reservoirs will be used jointly for both irrigation and flood control. It is anticipated with this arrangement, the three reservoirs plus irrigation diversions will control the more frequent floods of 6,500 C.F.S. or less at Boise. However, although major floods will be regulated to a considerable degree, there is sufficient storage to control these more rare floods to river capacity and some flooding downstream will occur.

CANAL REGULATIONS

Canal regulation in 1982 began on July 20 and was required for the balance of the irrigation season. Chart 5 shows daily canal diversions in C.F.S. for the period of April 1 thru October 15.

Chart 6 shows the monthly and total diversions in acre feet for the Boise River for the irrigation season.

Chart 7 is a table showing the return flow, canal diversions, winter diversions and flood control loss for the entire Boise Valley for each season beginning 1967 to date. Previous reports show the same information from 1915 to 1966 inclusive.

Boise River Natural Flow and Available Water Supply

The total natural flow for the Boise River during the Calendar Year of 1982 was 3,216,716 acre feet and for the irrigation year 1 October, 1981 to 30 September 1982 was 3,196,708 acre feet.

Irrigation started on the Boise River system 10 April, but demand for water was very light for the Month of April. Most Canals were diverting some water by 1, May.

The demand for water was very light in April, but from the 1 st. of May until Mid September was a very steady strong demand. Flood Control releases were started on 2 February and Continued until 19 July. The Bureau of Redamation, starting on 28 September and ending 18 October released 45,848 acre feet of water from thier uncontracted Lucky Peak space. This was done to lower the water surface in Lucky Peak so the Corp of Engineers could inspect the outlet gates at Lucky Peak. Minimum flow (150 cfs) was maintained until 22 November when 1200 cfs releases were started to stay within the Criteria of 300,00 acre feet of space on the system.

The return flows were ample for the needs of Section 2 and 3 of the River.

The peak flow of the river was 19,195 cfs on 4 May and the lowest flow 535 cfs on 6 September.

Storage Water

As of 31 December, 1982 there was 351,817 acre feet of water in Anderson Ranch Reservoir, 120,072 acre feet in Arrowrock Reservoir, and 212,845 acre feet in Lucky Peak Reservoir, for a total of 684,734 acre feet of stored water on the system.

806 cfs is being released from Anderson Ranch Reservoir, 1246 cfs from Arrowrock Reservoir and 2000 cfs from Lucky Peak Reservoir. The natural flow of the Boise River 31 December, 1982 was 1018 cfs.

CONCLUSIONS

1. That the records and data as compiled in the Watermaster's report for the past fifty years should be continued.

2. That the river naturally divides itself into three sections during the low water period.

3. That the river can be completely dried up at the lower end of Section 1 without injury to the rights in Section 2 during the low water period of each irrigation year.

4. That the return flow is a vital factor and must be considered in the operation of the river.

5. That the transfer of water rights from Section 2 to Section 1 is injurious to the rights already existing in Section 1 and should not be permitted.

6. That the construction of drainage systems in the Boise Valley has changed the irrigation requirements within these districts.

7. That by reason of the construction of these drainage canals certain waters which were formerly lost through seepage, evaporation and deep percolation, or reached the river during the winter months, are probably now reaching the river during the irrigation season and made available for irrigation purposes.

8. That the question of protection of the Boise River watershed should have the constant attention and consideration of the people of this area.

9. That a reasonable program of research work should be continued by the U. S. Forest Service on the Boise River watershed for the purpose of determining to what extent the resources of the watershed may be utilized

without being injurious to the inherent rights of the water users who are dependent upon this resource for a livelihood.

10. That the knowledge and data upon which a permanent duty of water must necessarily be based are constantly being improved and increased.

11. That an arbitrary duty of water, if established, should be subject to change from time to time.

12. That the "Court Orders" under which the Boise River has been operated for approximately 50 years have proven very satisfactory to the Boise Valley as a whole.

13. That if the so-called "sliding scale" should be fixed by the Court as a permanent duty of water for the Boise Valley, then an exception to said "sliding scale" should be made in the case of certain river bottom lands.

14. That mining operations within the bed of the Boise River and its tributaries should not be permitted.

15. That efforts should continue to be made for the construction of protective levees to relieve erosion in certain low places along the river.

16. That some type of program should be adopted for annual repair and channel clearance of the Boise River.

17. That the diversion checks in the Boise River should be of the retractable type to allow free passage of flood control waters.

18. At the present time, 6500 cfs passing the Capital Blvd. Bridge in Boise is the maximum flow to prevent serious flooding downstream. Several years ago this amount of water caused little or no flooding. In March 1975 with a 5000 cfs flow passing Boise, some flooding was experienced, and as the flow increased, also the flooding. Every year the flooding seems to start at a smaller flow. It is my opinion that if some channel cleaning and debris removal is not started, then it is only a matter of time until we will be flooding some land in the Eagle Island area when passing the summer irrigation demand.

TABLE IN SECOND FEET SHOWING THE DAILY OUTFLOW OF
LUCKY PEAK RESERVOIR FOR THE YEAR OF 1962

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	150	150	4650	7400	9200	7900	10617	4450	4050	2500	110	1200
2	150	782	4650	7400	9200	7900	10393	4450	3880	2500	110	1200
3	150	1057	4650	7400	9200	7900	9583	4450	3830	2500	110	1200
4	150	2150	4650	7400	9400	7900	9017	4450	3730	2500	110	1200
5	150	3150	5000	7400	9550	7900	9000	4400	3730	2500	110	1200
6	150	4150	5500	7400	9700	7900	9000	4400	3730	2500	110	1200
7	150	4150	5500	7400	9900	7900	9000	4400	3580	2500	110	1200
8	150	4150	5500	7400	10000	7900	8042	4400	3480	2500	110	1200
9	150	4150	6000	7400	10000	7900	8000	4400	3330	2500	110	1200
10	150	4150	6000	7400	10000	6900	5523	4400	3330	2500	183	1200
11	150	4150	6000	7400	10000	6200	5500	4400	3330	2500	150	1200
12	150	4150	6000	7400	10300	6200	5500	4400	3280	2500	150	1200
13	150	4150	6000	7500	10267	5200	5500	4400	3230	2500	150	1200
14	150	4150	6000	5531	10250	5200	5500	4350	3180	2500	150	1200
15	150	3765	6000	5781	10183	5200	5500	4350	3130	2500	150	1200
16	150	3150	6000	7500	9623	5000	5500	4350	2980	1800	150	1200
17	150	3150	6133	7417	9775	4800	5500	4350	2830	1800	150	1200
18	150	3150	6342	7400	9857	4800	5010	4350	2830	1800	150	1200
19	150	3629	6783	7400	9900	4800	5000	4300	2830	0	150	1200
20	150	4150	6993	7467	9900	4800	4706	4300	2830	0	150	1200
21	150	4150	7000	7600	9900	4800	4600	4250	2580	113	150	1200
22	150	4150	7000	7600	9400	4800	4600	4250	2580	150	150	1200
23	150	4150	7100	7783	9400	5500	4550	4250	2580	150	1298	1500
24	150	4150	7283	8100	9400	5500	4550	4250	2580	150	1200	1500
25	150	4150	7300	8100	9400	7917	4550	4250	2530	150	1200	1500
26	150	4150	7400	8100	8900	8000	4550	4250	2530	150	1200	1500
27	150	4613	7400	8500	7983	8000	4500	4250	2500	150	1200	1500
28	150	4650	7400	8600	7900	8953	4500	4200	2500	110	1200	1979
29	150		7400	8900	7900	9958	4450	4200	2500	110	1200	2000
30	150		7400	9100	7900	10715	4450	4200	2500	110	1200	2000
31	150		7400		7900		4450	4050		110		2000
TOTAL												
CFS.	4,650	39,302	194,424	227,179	232,196	204,348	191,141	134,150	92,553	44,353	12,611	41,879
AC. FT.	9,300	199,604	368,848	454,358	384,396	406,696	382,282	268,300	185,100	88,706	25,222	83,758
TOTAL CFS.										1,539,285		
AC. FT.										3,076,570		

NATURAL FLOW OF BOISE RIVER
IN SECOND FEET
BEGINNING 1901

UNITS

YEAR	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
1901	1553	1465	1391	1327	1246	1108	1132	806	1030	960	968	937	833	734	722	801	1235	1349	1340	1303	1305	1332	1531	1624	1522	1550	1416	2629	793	736	1094	30,274
1902	1415	1252	1174	1454	1242	1264	1082	1008	771	855	891	1119	1115	1525	1126	1281	1257	1285	1115	1235	858	847	979	1159	1347	1370	1095	1349	1055	889	974	35,205

MAINTENANCE OF ROUSE RIVER
IN SECOND FEE I
BEGINNING 1901

JANUARY

YEAR	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
1901	1557	1463	1391	1397	1346	1108	1132	806	1050	942	968	937	833	734	722	801	1235	1349	1349	1303	1305	1332	1531	1624	1592	1550	1316	2609	293	736	1091	30,274
1902	1415	1259	1174	1454	1262	1264	1082	1008	771	855	891	1119	1115	1323	1126	1381	1257	1285	1115	1205	858	847	979	1138	1347	1378	1095	1349	1055	889	574	35,205

MAINTENANCE FLOW OF BOISE RIVER
IN SECOND FIFT
BEGINNING, 1981

	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
1981	1054	1018	796	886	529	765	930	911	814	651	789	612	1045	1502	1731	1750	1727	2456	2514	2742	2721	2445	2413	2155	1981	2172	1800	1666				43,145
1982	1075	1133	952	1320	831	876	878	840	867	1056	1122	928	1070	1356	5531	4664	7073	6109	5507	5774	5996	7126	8410	7117	5529	4773	4068	3806				73,231

NATURAL FLOW OF BOISE RIVER
IN SECOND FEET
BEGINNING 1981

MARCH

YEAR	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
1981	6797	1236	6565	1536	1412	1934	1384	1343	1702	1720	1707	1478	1753	1800	1724	1837	1977	1896	1701	1740	2485	1779	2093	1813	1691	2107	2178	2305	2503	2183	2797	51,528
1982	9935	4356	4647	4407	4167	3720	3534	3518	3538	3555	3660	4641	4654	4678	4433	4412	4091	3901	4275	3457	3486	3437	3613	3177	3365	3445	4251	4750	4450	4441	4147	125,479

NATURAL FLOW OF NOISE RIVER
IN SECOND FEET
BEGINNING 1791

APRIL

	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
1981	2001	2336	2070	1776	1841	1773	1750	2018	1789	1868	1776	1650	1669	1646	1806	1940	2377	2358	3210	4740	6506	5978	5352	5347	6148	6153	6013	6209	5975	5077		107,610
1982	4209	3005	3740	3694	3508	3301	3705	3177	2876	3764	3044	6600	9479	9526	9794	8903	7363	7000	6471	6308	5643	5935	6701	9080	10008	12035	12140	12763	13228	12770		811,444

NATURAL FLOW OF BOISE RIVER
IN SECOND FEET
BEGINNING 1981

NOV

YEAR	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
1981	7137	8103	8346	7204	6354	5822	4678	4212	4200	3866	3609	3635	3278	3378	3366	3778	3421	3329	3840	4642	6037	5684	5863	6050	6105	7090	8005	7595	7250	7178	7158	171,649
1982	12845	13338	16651	19195	16985	14489	13380	13776	17253	11603	10826	10250	10224	10728	11891	13121	14853	15536	17269	16848	13987	14916	15614	15812	16118	17152	18325	16051	13799	11595	10025	641824

NATURAL FLOW OF RIVER
IN SECOND YEAR
BEGINNING 1981

JUNE

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	TOTAL
1981	1862	6790	6165	5933	5472	5288	5781	6321	9709	9620	6871	5552	5827	4160	4430	3970	3613	3551	3704	3427	3499	3476	3347	3293	2952	2871	2732	2654	2452	2770	187,717
1982	8755	9054	9271	9570	9135	9154	8548	7932	7541	7446	7921	8070	10224	12150	12534	13228	14765	14082	15017	15002	14732	13928	14019	13501	12501	12318	11565	12311	12315	11761	348,115

MATERIAL FLOW OF ROUSE RIVER
IN SECOND FEET
BEGINNING 1981

JULY

YEAR	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
1981	2174	2404	1829	1850	1834	1942	1991	1964	1991	1653	1330	1166	1628	1249	1215	1260	1243	1176	1106	1169	1135	1085	1015	907	874	882	879	807	729	724	723	41,354
1982	10667	10171	9220	5059	8741	7249	6501	6533	6243	5979	5566	5571	5611	5776	6106	5311	4716	4261	4052	3884	3734	3578	3581	3095	2933	2912	2798	3054	2749	2696	165,468	

NATURAL FLOW OF BUTTE RIVER
IN SECOND FEET
BEGINNING 1901

AUGUST

YEAR	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
1901	716	656	554	419	465	485	517	553	630	413	679	628	660	506	272	504	669	836	704	722	739	786	646	694	709	577	572	679	562	589	661	19,046
1902	7405	7705	2172	3063	1893	1060	1337	1838	1064	1696	1360	1721	1402	1449	1422	1427	1514	1439	1392	1307	1421	1209	1316	1102	1062	1132	984	934	913	946	1044	40,805

NATURAL FLOW OF BOULE RIVER
IN SECOND FIFT
BEGINNING 1961

20 FIFTY

YEAR	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
1961	546	550	601	521	650	582	621	647	575	579	512	624	571	571	500	656	535	587	584	636	550	643	600	633	577	609	791	003	621	779		18,516
1962	1040	924	941	1016	890	535	870	1101	1253	573	1030	979	1174	1117	1176	1208	1143	1033	1071	1610	1631	1259	1114	1058	1061	1167	1312	1115	1511	1096		35,562

WATERSHED OF BOLIVIA RIVER
IN SECOND FIFT
BEGINNING 1981

OF TONNE

YEAR	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
1981	911	753	635	647	636	492	474	548	976	851	951	1070	937	846	77	865	654	923	582	521	689	706	711	692	650	706	720	714	700	682	310	22,145
1982	1246	1079	1151	1405	859	1205	871	1142	1087	1006	1167	1167	1110	1060	1041	999	935	1065	956	922	971	1023	1264	1336	1221	1271	2118	1690	1553	1893	1662	37,756

ANNUAL FLOW OF HUIZU RIVER
IN SLEDD FILL
BEGINNING 1981

1971-1980

	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	1980	1981	1982
1980	785	787	798	1085	1251	1524	619	1291	735	617	613	716	1304	1353	1403	1376	1438	2425	1438	1350	1442	1542	1515	1705	1557	1237	1141	711	876	836	34,963			
1979	1,520	1,224	1,215	1,150	1,270	1,168	1,168	1,134	1,167	1,171	712	1,341	216	119	409	705	1,109	1,221	1,147	1,212	1,250	1,143	935	587	755	859	1,000	1,119	1,263	1,156	24,273			

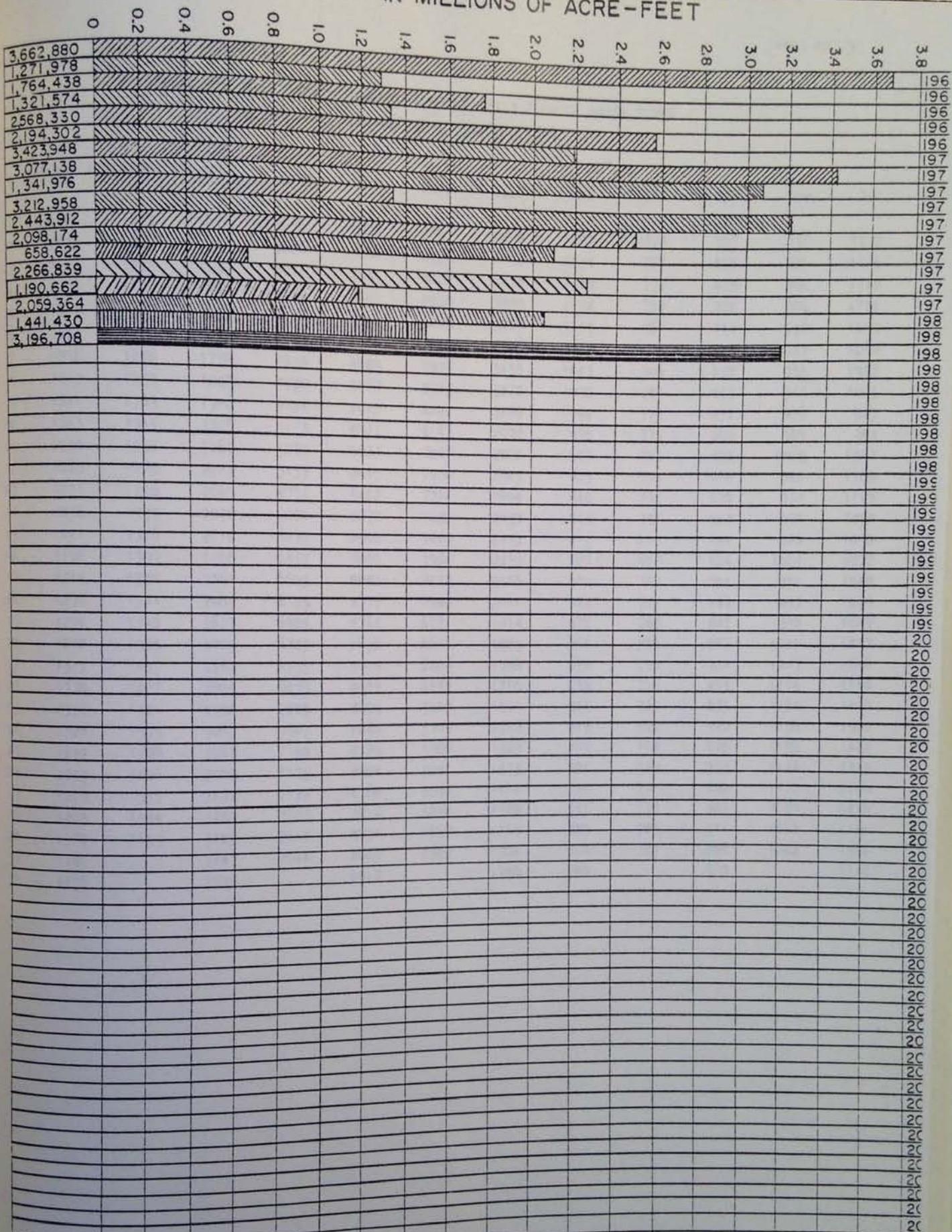
NATURAL FLOW OF NOISE RIVER
IN SECOND FIFT
BEGINNING 1981

RECIPIENT

YEAR	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
1981	1075	1116	1151	902	930	1049	1031	1110	1126	1011	1055	1051	970	1161	1411	1501	1402	1084	2037	3275	3051	3725	2656	1702	2021	1864	1904	1795	1557	1641	1289	59,183
1982	1231	1142	1210	1251	1216	1401	1674	1362	1071	955	1073	1070	1174	1306	1449	1654	1557	1493	1377	1392	1224	2066	2413	2046	1805	1613	1103	1433	1203	1000	1614	45,714

ANNUAL RUNOFF OF NOISE RIVER
AT DIVERSION DAM

RUNOFF IN MILLIONS OF ACRE-FeET



ANNUAL RUNOFF OF BOISE RIVER
AT DIVERSION DAM
CORRECTED FOR HOLDOVER STORAGE

TABLE, IN SECOND FEET, SHOWING AVERAGE DAILY FLOW OF BOISE RIVER
FOR A 85 YEAR PERIOD, 1895 THRU 1980

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	1101	1213	1679	3686	7003	8543	4329	1243	757	807	891	1072
2	1095	1229	1754	3806	7120	8452	4186	1238	777	835	931	1126
3	1115	1222	1699	4016	7235	8424	4038	1183	770	835	969	1112
4	1030	1315	1699	4090	7523	8408	3888	1124	759	828	906	1184
5	1017	1333	1692	4180	7694	8283	3767	1113	760	814	950	1090
6	1031	1269	1723	4365	7879	8240	3556	1082	744	785	923	1068
7	1050	1256	1739	4626	8089	8305	3453	1043	746	852	958	1022
8	1012	1358	1803	4738	8267	8345	3272	1030	742	873	949	1005
9	1041	1363	1940	4834	8425	8222	3146	982	775	832	976	983
10	1045	1314	1926	5115	8512	8147	2992	976	775	900	985	983
11	1030	1288	1969	5273	8477	7891	2870	984	789	872	1005	1047
12	1025	1278	2013	5435	8445	7806	2743	925	793	916	982	1162
13	1035	1296	2049	5731	8402	7714	2608	946	790	879	972	1113
14	1058	1339	2076	6084	8472	7654	2450	948	787	902	978	1098
15	1141	1326	2112	6270	8530	7449	2355	917	812	854	986	1070
16	1190	1339	2166	6538	8690	7384	2255	883	805	924	1004	1072
17	1215	1374	2260	6605	8681	7187	2116	881	793	901	952	1048
18	1236	1341	2409	6785	8776	6980	2011	848	772	889	993	1029
19	1286	1340	2623	6929	8768	6771	1914	872	763	867	958	1049
20	1292	1395	2725	6783	8636	6619	1825	862	824	887	1041	1017
21	1313	1407	2763	6755	8579	6404	1766	856	793	904	1047	1042
22	1370	1427	2844	6953	8507	6233	1710	833	778	895	1114	1119
23	1358	1421	2976	7023	8499	5988	1649	814	784	875	1164	1493
24	1321	1505	3000	7047	8664	5795	1578	813	802	912	1156	1582
25	1299	1500	3065	7108	8720	5506	1539	790	798	896	1178	1418
26	1245	1486	3091	7185	8804	5281	1475	781	787	902	1144	1242
27	1215	1555	3132	7239	8768	5294	1424	759	751	890	1117	1166
28	1205	1584	3269	7185	8814	4880	1388	751	773	901	1029	1158
29	1177	1695	3423	7114	8731	4669	1345	789	789	914	1020	1181
30	1181		3487	7044	8605	4505	1304	748	785	906	1062	1140
31	1176		3575		8612		1280	740		910		1112

NATURAL FLOW HIGH YEARS
PRODUCTION OVER 2,700,000 ACRE FT.

CHART 3-A

YEAR	AMOUNT PRODUCED OCT 1 - SEPT. 30	HIGH-MONTH	AMOUNT PRODUCED FOR MONTH	HIGH-DAY	24 HR. CFS AMOUNT PRODUCED	INSTANTANEOUS HIGH DURING THE DAY
1895-1896	3,301,142	JUNE	1,464,280	JUNE 14	35,500	
1898-1899	2,914,444	JUNE	731,400	(MAY 10-1899) JUNE 20	19,000 18,700	
1903-1904	3,029,516	MAY	828,600	(APRIL 15-1904) MAY 23	19,700 18,700	
1906-1907	3,207,380	MAY	683,520	(APRIL 15-1907) MAY 19	17,000 13,400	
1908-1909	2,744,790	JUNE	655,220	JUNE 5 & 6	16,000	
1909-1910	2,756,360	APRIL	609,980	(MARCH 22-1910) APRIL 12	16,600 12,000	
1920-1921	2,905,074	MAY	824,038	MAY 17	18,739	
1942-1943	3,563,670	APRIL	1,006,532	APRIL 18	25,040	
1951-1952	2,866,216	MAY	901,634	(APRIL 28-1952) MAY 5	23,429 18,955	
1955-1956	3,173,886	MAY	841,354	MAY 25	22,949	
1964-1965	3,662,880	MAY	836,232	(MAY 1, 1965) DECEMBER 24	20,503 27,294	44,000
1970-1971	3,423,948	MAY	922,614	MAY 14	20,253	
1971-1972	3,077,138	MAY	752,262	(MAY 16, 1972) JUNE 2	16,345 19,559	
1973-1974	3,212,958	JUNE	787,716	(MAY 9, 1974) JUNE 17	18,469 18,375	
1981-1982	3,196,708	MAY	883,648	MAY 4	19,195	

TOTAL MONTHLY FLOW OF NOISE RIVER - IN ACRES FEET
FOR IRRIGATION YEARS BEGINNING 1894 - 1905

YEAR	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1894-95	54,200 (8)	54,000	62,700	70,600	68,200	103,100	24,310	39,520	22,700	152,300	63,620	59,000	1,559,200
1895-96	57,040	54,900	50,700	73,440	67,660	137,560	29,500	35,520	146,420	38,520	81,960	57,500	3,201,142
1896-97	54,220	61,900 (3)	64,600	50,520	55,240	80,000	47,600 (5)	30,000 (6)	41,900 (5)	143,900	67,200	62,500	2,045,950
1897-98	54,120	64,100	61,900 (7)	34,100	119,280	119,280	251,700	39,020	29,360	116,040	45,720	39,160	1,482,676
1898-99	53,262	56,242	131,640	160,600	70,640	113,900	42,540	60,020	73,140	356,160	109,940	60,900	2,914,444
1899-1900	83,664	90,000	97,000	123,420	100,900	30,520	30,120	51,020	30,640	84,156	53,500	51,212	2,182,152
1900-01	63,570	61,000	65,060	79,440	98,340	170,320	30,500	68,640	20,740	116,400	52,222	49,704	1,985,716
1901-02	58,664	55,022	74,400	61,300	90,440	80,920	21,370	35,360	20,760	106,720	40,456	40,914	1,400,636
1902-03	45,670	54,418	63,474	81,760	63,570	143,360	48,220	50,520	60,180	147,500	53,000	46,514	2,769,856
1903-04	59,554	67,000 (7)	67,000	124,000 (1)	108,000 (1)	264,140	61,040	82,860	52,106	201,920	71,972	49,520	3,029,516
1904-05	58,920	34,000 (7)	34,000 (7)	50,000 (2)	56,700 (2)	176,200	176,200	22,920	24,760	70,860	30,770	34,660	1,183,050
1905-06	42,390	41,010	40,410	50,810	57,240	101,100	33,720	48,100	34,600	163,340	59,410	41,090	1,703,370
1906-07	42,350	73,700	74,000 (6)	125,400 (3)	155,000 (4)	346,120	67,540	60,320	53,450	335,840	101,600	62,070	3,207,300
1907-08	57,930	55,770	63,300	67,190	63,282	141,130	382,320	370,360	324,780	197,960	64,920	55,524	1,844,626
1908-09	64,440	59,280	59,000	138,160	110,600	228,840	473,220	60,520	65,520	228,000	63,690	57,220	2,744,730
1909-10	63,140	200,560	124,760	79,200	66,600	565,900	609,980	511,760	510,360	110,040	55,970	56,590	2,726,360
1910-11	63,210	73,780	76,820	63,010	76,340	153,570	32,750	54,920	74,060	230,400	74,906	59,636	2,494,032
1911-12	66,670	66,700	63,500	78,420	78,120	93,920	34,020	64,100	67,560	172,900	83,300	66,080	2,477,090
1912-13	67,960	67,700	60,600	53,000	51,400	101,800	37,690	57,740	41,320	150,660	82,964	54,590	2,060,494
1913-14	63,524	80,180	61,394	71,196	74,960	216,040	46,900	55,660	30,770	124,190	58,742	52,654	2,133,218
1914-15	69,004	59,366	44,800	59,380	57,76	94,782	176,558	274,128	191,900	83,972	40,926	39,672	1,212,994
1915-16	42,410	45,626	53,346	49,930	62,262	197,486	35,5062	56,372	59,4764	293,818	80,102	51,686	2,593,244
1916-17	53,066	54,020	57,702	47,628	47,694	61,740	26,702	64,156	64,322	260,216	65,224	43,930	2,257,840
1917-18	46,004	49,306	120,932	113,828	77,736	181,442	34,6040	40,9354	46,2460	112,526	56,292	51,122	2,035,502
1918-19	64,732	56,578	43,118	50,532	52,844	114,916	39,5854	50,912	46,0872	69,736	36,404	24,262	1,574,600
1919-20	47,914	56,548	53,010	66,578	66,714	89,254	18,9044	44,9790	33,3668	117,324	40,506	39,234	1,549,408
1920-21	59,966	75,678	67,106	112,422	94,098	271,472	33,4404	82,0338	71,0728	173,390	62,908	48,784	2,905,074
1921-22	55,492	78,176	89,938	60,982	53,180	113,692	31,9642	75,2474	65,9064	140,066	65,210	47,974	2,444,710
1922-23	52,168	48,006	52,728	62,094	50,660	97,700	27,726	45,010	37,6208	192,904	67,552	42,946	1,766,526
1923-24	61,592	52,930	51,286	48,934	72,446	63,590	136,450	24,3200	76,292	35,296	24,426	25,370	892,242
1924-25	39,218	53,862	42,912	48,414	123,306	192,378	50,1862	70,4466	36,7370	132,598	60,720	47,902	2,356,518
1925-26	54,424	51,382	63,482	48,416	64,264	140,450	23,704	24,7530	104,656	42,132	30,858	29,480	1,114,298
1926-27	34,682	67,640	84,702	62,700	107,242	185,560	324,534	66,0044	72,9736	23,4042	74,454	57,570	2,673,106
1927-28	67,004	143,162	98,102	90,026	79,090	276,560	31,6008	95,1194	20,5760	11,5962	51,846	30,016	2,434,590
1928-29	40,956	50,404	46,770	46,690	49,214	106,894	17,9238	35,9336	29,9368	96,482	35,716	31,802	1,308,510
1929-30	39,356	36,448	69,248	44,778	64,308	106,616	274,178	79,3246	237,700	77,726	44,922	36,690	1,344,555

(1) MEAN OF 4 HIGH YEARS

(2) SUBSTITUTED FROM 1906

(3) SUBSTITUTED FROM 1900

(4) MISSING DAYS SUBSTITUTED FROM 1900

(5) MISSING DAYS SUBSTITUTED FROM 21 YEAR MEAN

(6) MISSING MONTHS SUBSTITUTED FROM 71 YEAR MEAN

(7) INTERPOLATED

(8) AVERAGE OF 5 SHORT WATER YEARS

TOTAL MONTHLY FLOW OF BOISE RIVER - IN ACRES FEET
FOR IRRIGATION YEARS BEGINNING 1894 - 1895

YEAR	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1930-31	54512	45418	44108	44814	45298	91246	177172	251538	110844	34042	23952	23940	946,884
1931-32	31424	31224	36376	38612	36754	135826	376006	564176	428224	134044	57524	42730	1,922,920
1932-33	39142	56478	40396	43926	41136	64474	293342	341610	530198	106458	43964	32200	1,507,524
1933-34	41684	47684	55656	79680	78948	151696	245648	204008	55624	36200	23570	26072	1,080,470
1934-35	37226	49444	51208	52256	54376	83150	293458	428528	36262	94220	38058	29280	1,505,126
1935-36	33616	38268	37352	44612	47356	100060	377594	625906	319284	79080	43354	30360	1,984,842
1936-37	37272	36600	41556	37568	41728	89820	207358	381192	178996	59886	25248	25746	1,166,320
1937-38	36226	49828	113760	67492	71506	191026	505100	711314	550138	201292	71190	46910	2,625,842
1938-39	60426	67934	60980	52236	47170	164294	328918	341836	136300	60750	28454	30456	1,379,002
1939-40	40474	38398	49268	53858	75724	201512	355942	434480	227258	64910	30800	39348	1,612,680
1940-41	53168	59764	56634	54260	65360	113448	188300	365336	266776	85452	54496	41770	1,404,722
1941-42	48600	67200	106838	62182	61162	87004	341622	325576	362374	159112	46790	33496	1,682,756
1942-43	42564	64068	81782	153190	116564	235138	1006532	722804	627754	359398	100484	53192	3,563,670
1943-44	61802	70704	55768	49412	52610	68094	164000	303208	247726	106326	43764	53552	1,258,266
1944-45	40828	52200	42302	56270	80124	99160	202368	473146	405996	139040	51630	39020	1,682,684
1945-46	45822	53670	74712	77530	65808	218664	639804	651660	378022	125920	56618	42722	2,436,242
1946-47	67394	72214	103392	60364	87278	181276	289400	545764	297240	110646	46168	38466	1,903,602
1947-48	56244	57382	55404	65572	60480	73396	264424	505792	459706	109372	44612	36580	1,789,114
1948-49	44642	57318	51094	49038	45314	146034	416448	571670	304424	93542	41120	31176	1,849,320
1949-50	49284	51162	51500	63202	75010	154776	402818	563086	548282	239394	76620	48176	2,529,114
1950-51	61640	84448	80386	69948	125578	125912	556968	684094	440580	195068	70970	42550	2,547,002
1951-52	79304	63432	86930	68642	77070	107020	677090	901694	518282	171498	68760	49854	2,866,216
1952-53	52108	48642	54646	109336	80486	126750	329366	403582	588956	234470	72246	48328	2,169,456
1953-54	44870	57728	57732	64266	92288	149836	381720	397550	379666	178018	66360	41668	2,074,702
1954-55	49332	50178	46140	46716	40444	55940	129832	397270	419360	131738	56754	40794	1,464,498
1955-56	51704	60686	205818	147212	104470	228258	636302	841354	582598	108844	62794	55716	3,173,086
1956-57	66612	62464	69508	52448	92880	194072	561256	753910	518012	148306	51944	53366	2,424,828
1957-58	54116	52148	58128	53682	121836	124694	323778	946574	501566	142466	61766	54424	2,494,978
1958-59	51842	67996	83974	78466	69702	92542	276734	331594	362156	104896	48432	67694	1,629,768
1959-60	80908	60832	48314	51664	64890	172830	358988	374362	333350	81574	45758	46244	1,725,934
1960-61	47044	57842	47966	42454	58030	91220	172064	298818	229386	56820	40060	38212	1,176,726
1961-62	52150	51560	51872	54554	78326	87072	407956	406458	425398	142912	57452	49586	1,861,296
1962-63	71052	65918	65918	47612	147174	91904	180298	452916	411904	148768	53310	56736	1,786,556
1963-64	53040	66798	51172	52170	53660	71218	264166	457280	407856	152946	50092	52798	1,731,596
1964-65	47408	54288	258810	160796	182606	185530	624180	836232	778888	338964	118326	77252	3,660,880
1965-66	65490	61218	52690	63168	47170	97960	248302	327154	178048	54000	39052	37766	1,271,978
1966-67	40108	46514	43118	65592	60048	83580	138450	483144	526106	172702	49100	45416	1,764,438
1967-68	58400	55142	55142	47040	90030	113232	159728	278666	278666	76126	72200	55250	1,321,574
1968-69	5230	79000	63568	127336	87134	143528	654184	724322	376216	128816	51278	40678	2,560,350
1969-70	56088	47734	59950	172058	101728	149020	189668	577010	571508	205552	61036	54950	2,194,302

TOTAL MONTHLY FLOW OF BOISE RIVER - IN ACRE FEET

FOR IRRIGATION YEARS BEGINNING 1894 - 1895

YEAR	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1970-71	51354	97070	100514	156024	167320	211434	548362	922614	708614	297436	90500	64046	3,423,948
1971-72	68432	61934	65210	101004	101026	446586	394274	752262	745556	208518	70876	61488	3,077,138
1972-73	67300	61702	69764	73772	38170	92920	180710	348218	227082	75108	41870	45360	1,341,976
1973-74	47726	97112	90004	130332	30340	251286	599514	736774	787716	238736	78966	54292	3,212,976
1974-75	59774	55046	54424	59334	63858	145754	204658	618384	696228	345470	84702	55480	2,443,912
1975-76	67938	65950	87954	71086	75852	108240	383236	637050	336204	126112	68604	67748	2,098,174
1976-77	60582	48552	45364	44144	40756	43966	76258	93676	99860	46748	30730	27386	659,622
1977-78	40284	45306	105045	80908	89730	221530	381218	470968	470402	230260	63758	67430	2,266,837
1978-79	57932	47640	48876	49294	54958	105786	140420	349668	199184	58260	44912	38732	1,190,662
1979-80	44574	37648	45274	73156	90782	124636	363104	672048	407242	180914	58564	59422	2,059,364
1980-81	42796	57376	69934	76548	86290	115042	205520	343298	287544	82708	78052	37032	1,441,430
1981-82	45992	67734	100366	70410	186474	244858	427485	807648	602230	330936	93770	65304	3,196,708

DISEASES OF THE SECOND FRY OF BUTTE VALLEY CANALS
IN 1906

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

DISCHARGE IN SECOND FIFT OF BUTTE VALLEY CANALS
DAYS DURING THE IRRIGATION SEASON OF 1902. THE LOUING STORAGE

APRIL 1991

NAME OF CANAL	APRIL												TOTAL																			
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ALLEN																																
ANDREWS																																
BALLENTINE																																
BAXTER																																
BOYCE CITY																																
BOWMAN-SWISHER																																
BURR (SOUTH BOISE MUTUAL)																																
CALDWELL HIGH LINE																																
CAMPBELL (CANYON)																																
CANYON COUNTY																																
COMAY-WARRING																																
DAVIS DI TON																																
EUREKA #2																																
FARMERS UNION																																
GRAHAM-GILBERT																																
HAS																																
HART-DAVIS																																
ISLAND HIGH LINE																																
LEMO																																
LITTLE PIONEER																																
LOWER CENTER POINT																																
MACE-CATLIN																																
MACE-JACE																																
MADISON																																
MC CONNELL ISLAND																																
MCNAMUS & TEATER																																
MIDDLETON																																

DISCHARGE IN SECOND FEET OF ROISE VALLEY CANALS
DAYS DURING THE IRRIGATION SEASON OF 1906, INCLUDING STORAGE

BY HAVE DURING THE IDENTIFICATION SEASON OF 1996, INCLUDING STORAGE

1001

[illegible]

TABLE IN ACER, SHOWING TOTAL
MONTHLY CANAL DIVERSIONS FROM THE BOISE RIVER
DURING THE IRRIGATION SEASON OF 1962

CHART NO. 6

NAME OF CANAL	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTAL
AIKEN	0	204	166	146	180	120	40	856
ANDREWS	0	520	1168	1140	798	1090	308	5124
BALLENTYNE	72	872	1038	1176	1106	898	248	5410
BAXTER	100	680	880	672	592	742	336	4002
BOISE CITY	600	1898	1394	1954	1860	1342	676	10224
BOWMAN SWISHER	0	910	692	294	443	322	0	2656
BUEB(SOUTH BOISE MUTUAL)	0	774	634	696	656	366	60	3186
CALDWELL HIGHLINE	782	2478	2652	2822	2958	2422	1098	15252
CAMPBELL (CANYON DITCH)	220	1644	1922	1338	1616	1424	0	8164
CANYON COUNTY	806	3832	4588	4072	4392	3116	350	21816
CONWAY-HAMMING	0	148	148	104	230	100	0	730
DAVIS DITCH	0	472	534	536	530	513	128	2718
EUREKA #2	1740	7024	5726	3562	5600	6864	2403	34944
FARMERS UNION	2504	12138	14176	13404	13284	2986	2162	66674
GRAHAM-GILBERT	0	186	138	144	125	76	0	670
HAAS	200	1044	396	826	714	978	364	5122
HART-DAVIS	0	558	620	534	526	372	42	2752
ISLAND HIGHLINE	566	3494	3064	3330	3256	2444	1200	17504
LEMP	0	194	228	202	258	102	12	996
LITTLE PIONEER	240	1768	1758	1394	2170	1784	514	10123
LOWER CENTER POINT	300	2512	2006	1414	1778	1994	802	10876
MACE-CATLIN	0	270	422	450	424	240	24	1630
MACE-MACE	0	0	84	72	46	24	0	226
HAMMON	0	336	502	474	606	126	42	2086
MCCONNEL ISLAND	228	3332	2848	3138	2316	1974	850	14746
MCMAHON & TEATER	0	256	132	76	274	196	70	1004
MIDDLETON	1910	10432	1006	10316	8830	6304	2342	51320
MISCELLANEOUS	168	740	748	760	988	752	258	4514
NEW DRY CREEK	282	3586	3862	3002	3396	2180	108	16416
NEW YORK CANAL (B.O.F.C.)	77582	153432	154502	162354	166002	119974	26093	859944
PARMA	420	1756	1904	836	908	744	40	6608
PENITENTIARY	10	616	522	604	793	152	0	2702
PHYISS	5926	23912	28396	27574	29048	16530	4466	142512
RIDENBAUGH	7956	31600	31878	32438	30556	24682	3344	166456
RIVERSIDE	6562	15576	15992	16766	15708	13446	4968	89018

TABLE IN ACER FEET, SHOWING TOTAL
MONTHLY CANAL DIVERSIONS FROM THE BOISE RIVER
DURING THE IRRIGATION SEASON OF 1982

CHART NO. 6

NAME OF CANAL	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTAL
ROSSI MILL	282	490	500	576	600	500	198	3146
SEBREE (FARMERS COOP)	3366	14566	17326	16512	18318	11678	2550	34336
SETTLERS	0	8464	10134	10254	10910	7034	1222	48018
SEVEN SUCKERS	0	108	92	124	63	64	12	468
STEBENSBERG	72	680	790	628	704	770	0	3644
THURMAN, MILL	0	1988	1590	1776	1744	1542	325	9168
UPPER CENTER POINT	0	1454	960	900	1022	818	300	5464
WARM SPRINGS DITCH	0	366	264	266	200	202	34	1332
TOTAL	113,236	323,620	330,082	332,206	338,644	246,062	60,942	1,714,832

THIS CHART SHOW ONLY THE CANALS WHICH HAVE HEADING FROM THE BOISE RIVER.
SOME CANALS DIVERT THEIR WATER THROUGH ANOTHER CANAL.
CHARTS #7 AND #8 SHOW ACTUAL AMOUNT DIVERTED BY EACH DECREED CANAL OR USER.
MISCELLANEOUS IS A GROUP OF INDIVIDUAL USERS.

HOISE RIVER CANAL DIVERSIONS IN ACRE FEET

BEGINNING 1967

NAME OF CANAL	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
HOISE HILL (SOUTH HOISE CANAL)	3232	3082	3470	3212	3428	3340	3244	3326	3188	2844	2398	3122	3208	2814	3208
SCOTTIE (FARMERS COUNTRY)	103700	94108	91792	91792	95350	96446	96550	95916	88482	88308	64128	86108	83102	84662	84176
SETTLERS	52424	51430	51730	55450	56316	53818	51838	55072	47934	48144	43550	46356	49302	44108	46810
SEVEN CREEKS	1330	708	708	664	762	602	470	420	572	548	458	318	428	448	818
SIEBERG	4280	3736	4378	4756	3310	3338	3724	4478	3450	3724	3512	2664	2774	3610	2316
THOMPSON HILL	10512	10198	11564	9102	9642	10608	10330	8520	8844	8958	9706	8462	10440	10298	11802
WATER CENTER POINT	5270	5318	5186	5322	5094	6136	6344	6830	6772	6474	6386	7652	6332	5210	5574
WARR SPRINGS DITCH	2558	2116	2116	1528	1936	1658	1910	1650	2432	1734	2114	1704	2034	2058	2284
TOTAL CANAL DIVERSIONS	1785410	1755632	1870648	1810584	1882274	1835428	1790102	1900080	1756648	1722194	1292866	1664534	1704048	1705570	1,675,624
STORAGE WATER USED		581723	555489	471312	418822	422038	461886	475174	418205	500326	594719	400908	610728	493314	600536
SUMMER RETURN FLOW USED	428828	253609	385530	422236	485066	483034	236478	451392	446230	473054	355846	473078	373632	464330	460270
NATURAL FLOW USED IRRIGATION SEASON		920210	998529	916136	977866	927336	1092238	973514	892213	796668	386404	826548	710688	745926	614718
FLOOD CONTROL & OTHER LOSS TO IRRIGATION SEASON	0	0	295534	324006	909339	823660	0	1598234	459022	495244	0	432945	0	914020	278160
LOSS TO THE HOISE RIVER WADSWA		237060	782482	573559	1336242	1073714	(DUE TO)								
OUTSIDE LUCKY PEAK RESERVOIR (APRIL 1 TO OCT. 31)			2341080	1823344	2341080	2266804	1400638	3846922	2215670	1784384	964690	1660401	1330416	1726590	1,473,514
FISH & GAME	37352	18932	10250	16126	12056	19554	19195	34016	42870	19340	27064	23100	38116	43100	42000
NEW YORK CANAL DIVERSIONS OTHER THAN IRRIGATION SEASON	93770	27816	0	4272	0	62902	100148	156988	36334	36242	0	128000	4176	70716	4216
FLOOD CONTROL AND OTHER LOSS TO THE SYSTEM TOTAL YEAR	0	0	709378	920626	1969314	1810036	0	1598234	593024	734804	0	409556	0	914020	278160
TOTAL DIVERSIONS JANUARY 1 TO DECEMBER 31	1785410	1802040	1880938	1831082	1894430	1914884	1909345	2071114	1837852	1827776	1320030	1816434	1746340	1818886	1,758,784
TOTAL NATURAL FLOW JANUARY 1 TO DECEMBER 31	1487002	1364416	2519304	2293668	3361958	3080356	1378032	3147560	2408310	2028830	694759	2275652	1170710	2073524	1,487,568
TOTAL LOSS TO THE HOISE RIVER WADSWA		454788	1527244	1218344	2528166	2100552	(DUE TO)								
TOTAL OUTFLOW LUCKY PEAK	1647352	1466966	2384296	2102878	376602	3159410	1551496	3046222	2432876	2109326	997052	1877312	1384518	1834414	1,610,988

YEARS 1930 THRU 1966 IN PREVIOUS REPORTS

THE GEOLOGICAL SURVEY IS KEEPING RECORDS ON THE RIVER AT INDIANA AND THEY MAY BE OBTAINED FROM THEM.

WATER RESOURCES DIVISION
WASHINGTON STATE
BUREAU OF WATER RESOURCES

WATER RESOURCES DIVISION	1971
WATER RESOURCES DIVISION	1972
WATER RESOURCES DIVISION	1973
WATER RESOURCES DIVISION	1974
WATER RESOURCES DIVISION	1975
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WATER RESOURCES DIVISION	2027
WATER RESOURCES DIVISION	2028
WATER RESOURCES DIVISION	2029
WATER RESOURCES DIVISION	2030

ROYAL KINER CANAL DIMENSIONS TO ADP FILL

RECEIVED 1962

ADP	1312
ADP MILL (SOUTH SIDE CANAL)	3146
ADP MILL (NORTH SIDE CANAL)	4136
ADP MILL (SOUTH SIDE CANAL)	4208
ADP MILL (NORTH SIDE CANAL)	468
ADP MILL (SOUTH SIDE CANAL)	5644
ADP MILL (NORTH SIDE CANAL)	5168
ADP MILL (SOUTH SIDE CANAL)	5664
ADP MILL (NORTH SIDE CANAL)	1352
ADP MILL (SOUTH SIDE CANAL)	1,344,832
ADP MILL (NORTH SIDE CANAL)	45664
ADP MILL (SOUTH SIDE CANAL)	48376
ADP MILL (NORTH SIDE CANAL)	82716
ADP MILL (SOUTH SIDE CANAL)	62766
ADP MILL (NORTH SIDE CANAL)	2371635
ADP MILL (SOUTH SIDE CANAL)	17960
ADP MILL (NORTH SIDE CANAL)	26316
ADP MILL (SOUTH SIDE CANAL)	133728
ADP MILL (NORTH SIDE CANAL)	179108
ADP MILL (SOUTH SIDE CANAL)	325616
ADP MILL (NORTH SIDE CANAL)	3076320

ADP MILL (SOUTH SIDE CANAL) 1312
ADP MILL (NORTH SIDE CANAL) 3146
ADP MILL (SOUTH SIDE CANAL) 4136
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ADP MILL (SOUTH SIDE CANAL) 82716
ADP MILL (NORTH SIDE CANAL) 62766
ADP MILL (SOUTH SIDE CANAL) 2371635
ADP MILL (NORTH SIDE CANAL) 17960
ADP MILL (SOUTH SIDE CANAL) 26316
ADP MILL (NORTH SIDE CANAL) 133728
ADP MILL (SOUTH SIDE CANAL) 179108
ADP MILL (NORTH SIDE CANAL) 325616
ADP MILL (SOUTH SIDE CANAL) 3076320

TABLE SHOWING ACRE FEET PER ACRE DIVERTED BY BOISE VALLEY CANALS
FOR EACH IRRIGATION SEASON FROM 1965
(AVERAGE TAKEN FROM CHART NO. 9)

NAME OF CANAL	ACRES IRRIGATED	1965	1966	1967	ACRES IRRIGATED	1968	ACRES IRRIGATED	1969	ACRES IRRIGATED	1970	ACRES IRRIGATED	1971	1972	1973	1974	1975
PENITENTIARY	321	7.79	6.08	4.51	321	6.59	321	6.26	321	7.30	321	8.69	7.49	10.14	9.36	8.98
PHILLIS	24362	5.53	5.83	5.13	24362	4.35	24362	5.44	24362	5.26	24362	5.26	5.43	4.94	5.11	4.91
PIONEER DITCH	2030	10.42	11.52	11.92	2030	12.20	2030	7.87	2030	7.70	2030	7.60	7.93	10.12	9.79	8.78
RIDEWALK	26747	6.65	6.34	6.48	26747	6.30	26747	6.59	26747	6.53	26747	6.58	6.77	6.54	6.51	6.08
RIVERSIDE	10645	4.83	5.18	5.36	10645	5.10	10645	4.82	10645	4.09	10645	5.43	6.34	5.70	5.55	4.95
ROSEL	500	6.94	6.48	6.46	500	11.13	500	3.81	500	3.80	500	5.00	1.95	-55	0	0
ROSSI MILL	15500	6.23	7.93	6.82	15500	6.53	15500	6.07	15500	5.92	15500	6.06	6.68	6.49	6.55	6.38
SEEREE (FARMERS CO-OP)	12282	4.14	4.67	4.27	12282	4.19	12282	4.23	12282	4.51	12282	4.99	4.38	4.22	4.48	3.91
SEVEN SUCKERS					70	19.00	70	11.26	70	9.49	70	10.89	8.60	6.71	6.00	8.17
SIEBERBERG	646	6.07	8.53	6.63	646	5.78	646	6.78	646	7.36	646	5.12	6.10	5.76	6.93	5.34
THURMAN MILL	1799	5.78	5.67	5.84	1799	5.57	1799	6.43	1799	5.06	1799	5.56	5.90	5.74	4.73	4.92
UPPER CENTER POINT	641	9.05	10.65	8.22	641	8.61	641	8.09	641	8.20	641	7.95	9.57	10.83	10.65	10.36
WAGON SPRINGS DITCH					494	5.18	494	4.28	494	5.09	494	3.92	3.36	3.87	3.34	4.92
TOTALS	907355	5.69	5.88	5.79	314578	5.38	318133	5.88	316288	5.72	316297	5.95	5.79	5.66	6.00	5.55

* FRANKLIN DITCH COMPANY AND MASON CREEK DITCH COMPANY LANDS ONLY. THE BALANCE OF THE LAND UNDER THE CALDWELL HIGH LINE IS IRRIGATED WITH WATER DIVERTED FROM MASON DRAIN AND FIVE MILE CREEK.
1947 INPU 1964 CAN BE FOUND IN PREVIOUS ANNUAL REPORTS.
THE USE OF WATER PER ACRE IS A GROSS FIGURE, FOR A NET FIGURE TO THE LAND ALLOW ABOUT 25% LOSS.

TABLE SHOWING ACRE FEET PER ACRE DIVERTED BY BOISE VALLEY CANALS
FOR EACH IRRIGATION SEASON FROM 1965
(ACREAGE TAKEN FROM CHART NO. 9)

NAME OF CANAL	ACRES IRRIGATED	1976	ACRES IRRIGATED	1977	1978	1979	1980	1981	1982
AIKEN	236	5.32	236	4.38	4.09	5.40	3.75	3.98	3.63
ANDREWS	1068	4.70	1068	7.17	4.85	6.10	5.68	4.93	4.80
BALLENTINE	765	8.01	765	7.10	4.37	7.96	8.04	7.90	7.09
BAXTER	201	23.53	200	20.71	17.35	24.21	26.61	17.31	20.01
BOISE CITY	1828	6.25	1828	4.84	5.23	4.05	5.25	5.88	5.59
BOISE VALLEY	2727	4.86	2729	6.01	6.66	6.72	5.76	5.84	6.63
BOONE	517	.00	517	0	0	0	0	0	0
BONHAM-SWISHER	424	6.04	424	9.32	7.50	6.40	6.40	5.34	6.25
BURB (SOUTH BOISE MUTUAL)	1057	3.78	1057	2.36	3.99	4.11	3.00	2.91	3.01
*CALDWELL HIGH LINE	3960	4.11	3960	4.63	4.47	4.43	4.63	4.33	3.85
CAMPBELL (CANYON)	802	11.53	802	7.11	7.76	11.27	11.28	11.44	10.18
CANYON COUNTY	3957	5.78	3957	4.34	5.07	5.37	5.46	5.34	5.31
CAPITAL VIEW	600	4.08	600	4.63	3.70	2.75	4.36	3.81	3.96
COMAY-HAMMING	254	3.27	254	3.37	2.59	4.14	3.08	3.64	2.82
DAVIS DITCH	634	4.23	634	4.20	4.41	4.97	4.24	4.54	4.59
EAGLE ISLAND CANALS (LISTED INDIVIDUALLY)									
ELBERT #1	1800	3.74	1800	4.26	4.46	3.94	5.30	4.84	5.82
ELBERT #2	2655	11.94	2655	10.51	12.64	13.22	13.93	14.06	13.31
FARMERS UNION	8372	7.29	8372	5.43	5.80	5.60	5.81	5.60	5.52
GRAHAM-GILBERT	200	2.83	200	4.09	2.32	4.50	3.03	4.09	3.35
HAAS	867	5.29	867	5.70	4.51	5.09	5.79	4.19	5.91
HART-DAVIS	453	6.04	453	5.43	4.91	8.04	8.53	7.50	6.00
ISLAND HIGH LINE	945	16.04	945	15.89	13.35	15.98	20.09	17.17	18.52
LEMP	300	3.09	300	3.55	3.78	4.72	3.37	4.26	3.32
LITTLE PIONEER	1336	7.63	1336	6.37	7.34	7.22	8.81	7.83	7.58
LOWER CENTER POINT	880	11.75	880	14.22	10.91	13.30	11.97	13.30	12.36
MACT-CATLIN	536	3.81	536	5.20	4.61	5.24	3.27	4.83	3.41
MACT-ANCE	80	3.53	80	3.08	5.30	4.68	2.53	2.80	2.83
MADISON	468	4.60	468	4.57	4.22	5.26	5.47	4.79	4.46
MCCORREL ISLAND	1600	9.05	1600	7.74	7.72	7.88	11.31	9.31	9.22
MCNAMIE & TEATIE	168	11.76	168	13.24	8.07	7.68	6.77	7.54	5.92
MEVIES #1	73	9.59	73	0 (INCL. IN MISC.)	0 (INCL. IN MISC.)	0	0	0	0
MEVIES #2	26	23.23	26	5.04	4.31	5.13	5.24	5.03	5.77
PIDOLETON IRRIGATION ASSOC.	5180	5.53	5180	5.04	4.31	4.37	4.83	4.29	4.90
PIEDLETON HILL	4400	4.71	4400	4.30	3.68	4.37	4.83	4.29	4.90
MICCELLANEOUS	801	4.23	808	5.11	5.60	5.56	4.89	6.14	5.08
NEW DRY CREEK	3057	5.83	3059	5.38	5.01	5.30	5.49	5.70	4.13
NEW UNION	688	6.00	688	5.58	6.53	5.72	6.06	5.57	4.04
NEW YORK CANAL (N. OF C.)	164,920	5.32	164,920	3.24	5.02	5.06	5.03	4.82	5.21
PADMA	602	12.72	602	11.85	8.46	10.85	9.80	11.25	10.98

TABLE SHOWING ACRE FEET PER ACRE DIVERTED BY BOISE VALLEY CANALS

FOR EACH IRRIGATION SEASON FROM 1965
(ACREAGE TAKEN FROM CHART NO. 9)

NAME OF CANAL	ACRES IRRIGATED	1976	ACRES IRRIGATED	1977	ACRES IRRIGATED	1978	1979	1980	1981	1982
PENITENTIARY	321	8.79	321	5.70	321	5.91	9.51	6.36	7.69	6.42
PHILLIS (PIONEER IRR. DIST)	23,974	5.60	23,974	4.08	23,974	4.97	4.93	5.13	4.94	5.51
PIONEER DIXIE	3000	9.46	3000	8.96	3000	8.35	9.56	9.37	9.96	9.97
RIDENBAUGH	26,877	5.96	26,877	4.53	26,877	6.25	5.93	5.73	6.38	6.19
RIVERSIDE	10,645	5.33	10,645	5.05	10,645	4.70	5.39	5.28	5.62	5.58
ROEDEL	160	.00	160	0	160	0	0		0	0
ROSSI MILL	910	5.69	912	4.68	912	6.10	6.27	5.93	6.75	6.14
SEBREE (FARMERS CO-OP)	15,500	5.70	15,500	4.14	15,500	5.56	5.75	5.47	5.43	5.44
SETTLERS	12,322	3.91	12,322	3.53	12,322	3.76	4.01	3.62	3.80	3.90
SEVEN SUCKERS	70	7.83	70	6.54	70	4.54	6.11	6.40	5.97	6.69
SIEFENBERG	646	5.76	646	5.44	646	4.03	4.29	5.57	4.51	5.64
THURMAN MILL	1719	5.21	1719	5.65	1719	4.92	6.07	5.89	6.43	5.33
UPPER CENTER POINT	641	10.10	641	10.90	641	11.94	9.97	9.13	8.70	8.52
WARM SPRINGS DITCH	494	3.51	494	4.28	494	3.45	4.12	4.17	4.54	2.32
TOTALS	316,282	5.60	316,282	4.09	316,282	5.26	5.37	5.39	5.30	5.52

*FRANKLIN DITCH COMPANY AND MASHIN CREEK DITCH COMPANY LANDS ONLY. THE BALANCE OF THE LAND UNDER THE CALDWELL HIGH LINE IS IRRIGATED WITH WATER DIVERTED FROM SEVERAL DRAINS.

1947 THRU 1964 CAN BE FOUND IN PREVIOUS ANNUAL REPORTS.

THE USE OF WATER PER ACRE IS A GROSS FIGURE, FOR A NET FIGURE TO THE LAND ALLOW ABOUT 35% LOSS.

TABLE SHOWING ACRE FEET PER ACRE DIVERTED BY BOISE VALLEY CANALS

FOR EACH IRRIGATION SEASON FROM 1965
(ACREAGE TAKEN FROM CHART NO. 9)

NAME OF CANAL	ACRES IRRIGATED	1976	ACRES IRRIGATED	1977	ACRES IRRIGATED	1978	1979	1980	1981	1982
PENITENTIARY	321	8.79	321	5.70	321	5.91	9.51	6.36	7.69	6.42
PHYLLIS (PIONEER IRR. DIST)	23,974	5.60	23,974	4.08	23,974	4.97	4.93	5.13	4.94	5.51
PIONEER DIXIE	3000	9.46	3000	8.96	3000	8.35	9.56	9.37	9.96	9.97
RIDENBAUGH	26,877	5.96	26,877	4.53	26,877	6.25	5.93	5.73	6.38	6.19
RIVERSIDE	10,645	5.33	10,645	5.05	10,645	4.70	5.39	5.28	5.62	5.58
RODEL	160	.00	160	0	160	0	0		0	0
ROSSI MILL	512	5.69	512	4.68	512	6.10	6.27	5.93	6.25	6.14
SEBELL (FARMERS CO-OP)	15,500	5.70	15,500	4.14	15,500	5.56	5.75	5.47	5.43	5.44
SETTLERS	12,322	3.91	12,322	3.53	12,322	3.76	4.01	3.62	3.80	3.90
SEVEN SUCKERS	70	7.83	70	6.54	70	4.54	6.11	6.40	5.97	6.69
SITENBERG	646	5.76	646	5.44	646	4.03	4.29	5.97	4.51	5.64
THURMAN MILL	1719	5.21	1719	5.65	1719	4.92	6.07	5.99	6.43	5.33
UPPER CENTER POINT	641	10.10	641	10.90	641	11.94	9.97	9.13	8.70	10.52
WARM SPRINGS DITCH	494	3.51	494	4.28	494	3.45	4.12	4.17	4.54	2.32
TOTALS	316,282	5.60	316,282	4.09	316,282	5.26	5.37	5.39	5.30	5.52

*FRANKLIN DITCH COMPANY AND MASON CREEK DITCH COMPANY LANDS ONLY. THE BALANCE OF THE LAND UNDER THE CALDWELL HIGH LINE IS IRRIGATED WITH WATER DIVERTED FROM SEVERAL DRAINS.

1947 THRU 1964 CAN BE FOUND IN PREVIOUS ANNUAL REPORTS.

THE USE OF WATER PER ACRE IS A GROSS FIGURE, FOR A NET FIGURE TO THE LAND ALLOW ABOUT 35% LOSS.

BOISE VALLEY CANALS AND ACREAGE

CHART NO. 9

AIKEN	236 ACRES	ISLAND HIGH LINE	945 ACRES
ANDREWS	1068 "	LEMP DITCH	300 "
BALLENTYNE	763 "	LITTLE PIONEER	1336 "
BAXTER	200 "	LOWER CENTER POINT.....	890 "
BOISE CITY	1828 "	MACE & CATLIN	536 "
BOISE PROJECT BOARD OF CONTROL		MACE & MACE	80 "
BIG BEND IRRIG. DIST.....	1724 "	MAMMON	468 "
BOISE-KUNA IRRIG. DIST.....	48,629 "	MCCONNEL ISLAND	1600 "
NAMPA & MERIDIAN IRRIG. DIST.....	40,304 "	MCMAHUS & TEATER	168 "
NEW YORK IRRIG. DIST.....	17,728 "	MIDDLETON MILL	4400 "
WILDER IRRIG. DIST.....	56,535 "	MIDDLETON WATER.....	5180 "
TOTAL - BOARD OF CONTROL.....	164,920 "	MISCELLANEOUS	888 "
BOISE VALLEY	2729 "	NEW DRY CREEK	3059 "
BOONE	517 "	NEW UNION	688 "
BOWMAN-SWISHER.....	424 "	PARMA DITCH	602 "
BUBB (SOUTH BOISE MUTUAL).....	1057 "	PENITENTIARY	321 "
*CALDWELL HIGH LINE.....	11,917 "	PIONEER IRRIG. DIST.....	23,974 "
CAMPBELL (CANYON DITCH).....	802 "	PIONEER DIXIE.....	3000 "
CANYON COUNTY	3957 "	RIDENBAUGH	26,877 "
CAPITAL VIEW	600 "	RIVERSIDE IRRIG. DIST.....	10,645 "
CONWAY-HAMMING.....	259 "	ROEDEL	160 "
DAVIS & LITTLE DAVIS	634 "	ROSSI MILL	512 "
EUREKA WATER CO. #1	1300 "	SEBREE.....	15,500 "
EUREKA DITCH CO. #2	2625 "	SEVEN SUCKERS	70 "
FARMERS UNION	8372 "	SETTLERS	12,322 "
GRAHAM-GILBERT	200 "	SIEBENBERG	646 "
HAAS.....	367 "	THURMAN MILL	1719 "
HART-DAVIS	453 "	UPPER CENTER POINT.....	641 "
		WARM SPRINGS DITCH	494 "

TOTAL 324,239 ACRES

DRAINAGE WATER (NOT DIVERTED FROM BOISE RIVER)

BLACK CANYON IRRIGATION DISTRICT	6,894 ACRES
CALDWELL IRRIGATION DISTRICT	755 "
MORELAND & VIAL (DIXIE DRAIN)	640 "
	8,289 ACRES

GRAND TOTAL 332,528 ACRES

THIS ACREAGE IS BASED, IN SOME INSTANCES, UPON ACTUAL SURVEYS, AND IN OTHER CASES UPON THE ACREAGE AS DETERMINED AT THE TIME OF THE STEWART DECREE, AND IS THE BEST INFORMATION AVAILABLE AT THE PRESENT TIME. IT WAS ORIGINALLY COMPUTED FEBRUARY 14, 1941, BUT HAS BEEN REVISED SEVERAL TIMES, PARTICULARLY TO REDUCE RIVER BOTTOM ACREAGES TO CONFORM TO STEWART DECREE ACREAGES AS DETERMINED BY SPECIAL COMMITTEE, AND TO ACCOMMODATE TRANSFERS FROM ONE CANAL OR USER TO ANOTHER.

RIDENBAUGH REPRESENTS OLD LANDS WITHIN THE NAMPA & MERIDIAN IRRIGATION DISTRICT THAT ARE WATERED BY THE OLD RIDENBAUGH RIGHTS IN THE STEWART DECREE. THE BALANCE OF THE NAMPA & MERIDIAN IRRIGATION DISTRICT LANDS ARE INCLUDED UNDER THE BOARD OF CONTROL.

*3960 ACRES ARE WATERED WITH LIVE WATER. THE BALANCE OF THE WATER COMES FROM SEVERAL DRAINS.

LUCKY PEAK STORAGE ACCOUNTS - 1938 - BY DATE PAID

CANAL COMPANY	ARROWROCK STORAGE	ANDERSON STORAGE	LUCKY PEAK STORAGE	TOTAL AVAILABLE	JUNE USE	BALANCE 1 JULY	JULY USE	BALANCE 1 AUG.	AUG. USE	BALANCE 1 SEPT.	SEPT. USE	BALANCE 1 OCT.	OCT. USE	BALANCE 1 NOV. OF SEASON	TOTAL 1938 STORAGE USED	ANDERSON DAM POWER	LUCKY PEAK CAPACITY	ARROWROCK STORAGE CAPACITY
BALLETYN		376	1300	1676	0	1676	152	1524	116	1408	0	1408	0	1408	258	308	1300	
BOISE CITY			1000	1000	0	1000	12	988	0	988	0	988	0	988	12		1000	
BOISE VALLEY		541	7500	8041	0	8041	96	7945	200	7745	0	7745	0	7745	304	657	7500	
BOHE (SOUTH BOISE MUTUAL)		543	500	1043	0	1043	0	1043	0	1043	0	1043	0	1043	0	543	500	
CANYON COUNTY			6000	6000	0	6000	370	5630	446	5184	0	5184	0	5184	815		6000	
CAPITAL VIEW		460	100	560	0	560	42	518	16	502	0	502	0	502	64	392	100	
DAVIS			1500	1500	0	1500	0	1500	0	1500	0	1500	0	1500	0		1500	
EAGLE ISLAND CANALS			7550	7550	0	7550	70	7480	22	7458	0	7458	0	7458	92		7550	
EUREKA #1			2800	2800	0	2800	0	2800	0	2800	0	2800	0	2800	0		2800	
FARMER UNION	2874	5727	10000	18601	0	18601	1304	17297	738	16499	0	16499	0	16499	2102	5727	10000	772
LITTLE PIONEER		2174	500	2674	0	2674	422	2252	338	1914	0	1914	0	1914	760	1414	500	
MIDDLETON IRRIGATION			6380	6380	0	6380	203	6177	74	6103	0	6103	0	6103	297		6380	
MIDDLETON HILL			4620	4620	0	4620	147	4473	68	4405	0	4405	0	4405	215		4405	
NEW DRY CREEK		1215	3000	4215	0	4215	136	4079	56	4023	0	4023	0	4023	552	1044	3000	
NEW UNION			1400	1400	0	1400	0	1400	0	1400	0	1400	0	1400	0		1400	
NEW YORK*	254419	353652		614,080	30,024	584,056	151898	432,158	121,276	310,882	18,048	292,834	321,246	292,834	321,246	292,834	16,000	
PHYLLIS***	21,071	25,582	16,000	62,653	1,104	61,549	14,896	46,653	5,026	41,627	0	41,627	0	41,627	21,026	24,027	35,000	
RIDENBAUGH	3,832	15,137	35,000	53,969	0	53,969	5,550	48,419	4,102	44,317	0	44,317	0	44,317	9,652	9,317	35,000	
ROSSI HILL			700	700	0	700	0	700	4	696	0	696	0	696	4		700	
SEBREE	1,227			1,227	0	1,227	0	1,227	0	1,227	0	1,227	0	1,227	0			1,227
SETTLERS**	2,878	6,082	10,000	18,960	0	18,960	1,508	17,452	1,184	16,268	0	16,268	0	16,268	2,692	6,082	10,000	186
THURMAN HILL			100	100	0	100	0	100	0	100	0	100	0	100	0		100	
WROGER	100			100	16	84	28	56	14	42	0	42	0	42	38			42
LUCKY PEAK NURSERY	200			200	20	180	56	124	28	96	0	96	0	96	104			96
IDaho DEPT. OF FISH & GAME			50,000	50,000	0	50,000	0	50,000	0	50,000	0	50,000	0	50,000	0		50,000	
ANDERSON DAM POWER		5,200		5,200	0	5,200	0	5,200	0	5,200	0	5,200	0	5,200	0	5,200		
LUCKY PEAK UNCONTRACTED			73,522	73,522	0	73,522	0	73,522	832	72,690	45,016	27,674	45,016	27,674	45,016		72,674	
TOTALS	285,400	423,200	261,472	971,272	31,164	940,108	176,950	763,158	135,438	627,720	63,064	564,656	406,616	348,145	214,188	7,323		

*LESS 1100 ACRE FEET OF ARROWROCK STORAGE TRANSFERRED TO SETTLERS, 53 ACRE FEET TRANSFERRED TO PHYLLIS TO IRRIGATE GOVERNMENT LANDS. INCREASED BY 22,700 ACRE FEET OF HILLCREST STORAGE.

LESS 272 ACRE FEET OF ANDERSON STORAGE TRANSFERRED TO SETTLERS TO IRRIGATE GOVERNMENT LANDS.

**INCREASE SETTLERS STORAGE 1100 ACRE FEET OF ARROWROCK STORAGE, 272 ACRE FEET OF ANDERSON STORAGE TO IRRIGATE GOVERNMENT LANDS.

***INCREASE PHYLLIS ARROWROCK STORAGE 53 ACRE FEET TO IRRIGATE GOVERNMENT LANDS.

STATE OF IDAHO FISH AND GAME STORAGE WATER TO BE USED DURING THE WINTER MONTHS.

LUCKY PEAK UNCONTRACTED STORAGE WATER TO BE RELEASED BY ORDER OF BUREAU OF RECLAMATION.

STORAGE WATER ALLOCATIONS FOR ARROWROCK AND ANDERSON RESERVOIRS

CHART NO. 11

ARROWROCK

NAME	ACRE FEET OF STORAGE WATER	PERCENT OF SPACE
BOISE PROJECT BOARD OF CONTROL	177,816	62.01
NAMPA & MERIDIAN	55,055	19.25
PIONEER IRRIGATION DISTRICT	21,018	7.333
FARMERS UNION DITCH CO.	2,874	1.000
SETTLERS IRRIGATION DISTRICT	1,778	.62
FARMERS CO-OP CANAL CO.	1,227	.428
RIDENBAUGH CANAL	3,832	1.337
HILLCREST	23,000	8.02
TOTAL	286,600	99.998

ANDERSON

BOISE-KUNA IRRIGATION DISTRICT	112,149	26.83
NEW YORK IRRIGATION DISTRICT	41,006	9.81
WILDER IRRIGATION DISTRICT	125,108	29.93
BIG BEND IRRIGATION DISTRICT	3,887	.93
NAMPA & MERIDIAN	77,784	18.61
TOTAL BOARD OF CONTROL		
RIDENBAUGH	15,137	3.62
PIONEER IRRIGATION DISTRICT	25,582	6.12
FARMERS UNION DITCH CO.	5,727	1.37
NEW DRY CREEK DITCH CO.	1,296	.31
SETTLERS IRRIGATION DISTRICT	5,810	1.39
BOISE VALLEY IRRIGATION DITCH CO.	961	.23
SOUTH BOISE MUTUAL IRRIGATION CO.	543	.13
BALLENTYNE DITCH CO.	376	.09
CAPITOL VIEW IRRIGATION DISTRICT	460	.11
PIONEER DITCH COMPANY	2,174	.52
TOTAL	418,000	100.00
POWER	5,200	

359,934

STORAGE WATER ALLOCATIONS FOR ARROWROCK AND ANDERSON RESERVOIRS

CHART NO. 11

ARROWROCK

NAME	ACRE FEET OF STORAGE WATER	PERCENT OF SPACE
BOISE PROJECT BOARD OF CONTROL	177,816	62.01
NAMPA & MERIDIAN	55,055	19.25
PIONEER IRRIGATION DISTRICT	21,018	7.333
FARMERS UNION DITCH CO.	2,874	1.000
SETTLERS IRRIGATION DISTRICT	1,778	.62
FARMERS CO-OP CANAL CO.	1,227	.428
RIDENBAUGH CANAL	3,832	1.337
HILLCREST	23,000	8.02
TOTAL	286,600	99.998

ANDERSON

BOISE-KUNA IRRIGATION DISTRICT	112,149	26.83
NEW YORK IRRIGATION DISTRICT	41,006	9.81
WILDER IRRIGATION DISTRICT	125,108	29.93
BIG BEND IRRIGATION DISTRICT	3,887	.93
NAMPA & MERIDIAN	77,784	18.61
TOTAL BOARD OF CONTROL		
RIDENBAUGH	15,137	3.62
PIONEER IRRIGATION DISTRICT	25,582	6.12
FARMERS UNION DITCH CO.	5,727	1.37
NEW DRY CREEK DITCH CO.	1,296	.31
SETTLERS IRRIGATION DISTRICT	5,810	1.39
BOISE VALLEY IRRIGATION DITCH CO.	961	.23
SOUTH BOISE MUTUAL IRRIGATION CO.	543	.13
BALLENTYNE DITCH CO.	376	.09
CAPITOL VIEW IRRIGATION DISTRICT	460	.11
PIONEER DITCH COMPANY	2,174	.52
TOTAL	418,000	100.00
POWER	5,200	

359,934

STORAGE WATER ALLOCATIONS FOR LUCKY PEAK RESERVOIR

CHART NO. 11

NAME	ACRE FEET OF STORAGE WATER	PERCENT OF SPACE
BALLENTYNE	1,300	.467
BOISE CITY	1,000	.360
BOISE VALLEY	2,500	.899
BUBB (SOUTH BOISE MUTUAL)	500	.180
CANYON COUNTY	6,000	2.157
CAPITAL VIEW IRRIG. DIST.	300	.108
DAVIS DITCH (VILLAGE OF GARDEN CITY)	1,500	.539
EAGLE ISLAND WATER CO.	7,650	2.750
EUREKA WATER CO. #1	2,800	1.006
FARMERS UNION	10,000	3.595
LITTLE PIONEER	500	.180
MIDDLETON IRRIG. ASSN.	6,380	2.293
MIDDLETON MILL	4,620	1.661
NEW DRY CREEK	3,000	1.078
NEW UNION	1,400	.503
PHYLLIS (PIONEER IRRIG. DIST.)	16,000	5.751
RIDENBAUGH	35,000	12.580
ROSSI MILL (SOUTH BOISE WATER)	700	.252
SETTLERS	10,000	3.595
THURMAN MILL	800	.288
IDAHO FISH & GAME	50,000	17.972
UNCONTRACTED SPACE	116,250	41.786
TOTAL	278,200	100.0

Prepared by: Bob Sutter
Idaho Department
of Water Resources

IRRIGATION RETURN FLOWS OF THE BOISE VALLEY

Return flows from irrigation diversions are a significant factor in the operation and character of the Boise River. During the irrigation season, groundwater levels rise and the flows in surface drains begin to increase. This flow along with direct surface return and canal spills is then either rediverted by other canals or directly discharged into the Boise River. The Boise River itself acts as a drain in intercepting groundwater and surface return flows. The combined surface and intermediate ground return flow is a significant amount throughout the entire year.

SURFACE DRAINS

About eleven principal drain systems discharge to Boise River between Lucky Peak Reservoir and the mouth of Boise River. In downstream order these systems are: Drainage District #3, Thurman Drain, Eagle Drain, Five Mile Creek, North and South Middleton Drain, Willow Creek, Mason Creek and Drain, Hartley Drain and Gulch, Indian Creek, Conway Gulch, and Dixie Slough. Most of these follow the natural drainage to the river and in the past were tributaries that contained flow only sporadically following rainstorms or rapid snowmelt.

The Boise Valley below Boise is crossed by many surface drains which do not discharge directly to Boise River. These drains are either tributary to other drains or are intercepted by canals which pick up flow for rediversion. In the lower end of the Boise Valley, some drains discharge directly to the Snake River. One of the largest of these is Sand Run Gulch which discharges as much as 75 cfs during the non-irrigation season.

Following is a short description of some of the major surface drain systems in Boise Valley. In many cases these systems are made up of a complex network of tributary drains which is constantly changing because of new construction or relocation.

Drainage District #3: Return flows from three small drains are included in this system. These are the Booth, Myers, and Ridenbaugh drains. They enter the Boise River from the south within the city of Boise, and collect return flows from land irrigated in the immediate vicinity of Boise. The combined discharge of these drains varies from 15 cfs in the summer to almost no flow in the winter.

Thurman Drain: This drain is located below the Settlers Canal on the south side of the river and discharges into the South Channel of Boise River near Eagle Island. It collects return flows from the Settlers Canal and includes return flows from the end of the Thurman Mill Canal. Discharge ranges from 25 cfs in the summer to less than 15 cfs in the winter.

Eagle Drain: Eagle Drain enters Boise River on the North Channel of Eagle Island at the town of Eagle. It drains the area below the Farmers Union and Dry Creek Canals from Boise to Eagle. Discharge ranges from 60 cfs in the summer to 15 cfs in the winter.

Five Mile Creek: Sometimes called Fifteenmile Creek, Five Mile Creek enters Boise River from the south near Middleton and acts as a drain for the area below the Boise Project Main Canal and between the City of Boise and Mason Creek Drain. It receives return flows and spills from the Main, Ridenbaugh, and Phyllis Canals. Five Mile Creek is a major source of irrigation water for the Caldwell Highline Canal, the last of a series of major canals which cross this drain. Just prior to entering the river, a diversion of about 17 cfs is made by a small canal. Discharge to the river varies from 140 cfs in the summer to less than 40 cfs in the winter. However, because of the great reuse of water from the drain, flows are quite variable.

Mason Creek: Mason Creek drains land served by the same canals as Five Mile Creek and also provides irrigation water to the Caldwell Highline Canal. Between the Boise Project Main Canal and the Ridenbaugh Canal, Mason Creek acts as a lateral from the former canal and empties into the latter. It begins to function as a drain below the Ridenbaugh Canal. Near the river, Mason Creek branches into two channels which reach the river at approximately the same location near Caldwell. These channels are called Mason Creek and Mason Drain. The combined discharge of the two channels varies from 200 cfs in the summer to 60 cfs in the winter.

Indian Creek: Indian Creek and two tributary drains, the Wilson and Elijah, drain the area below the Ridenbaugh Canal between Mason Creek and Lake Lowell. Similar to Mason Creek, Indian Creek begins to act as a drain below the Ridenbaugh Canal. Above that point Indian Creek functions as a portion of the Boise Project Main Canal and all return flows or surface runoff is diverted to Lake Lowell via the Main Canal.

There are many artesian wells and springs which discharge to Indian Creek in the vicinity of Nampa. Indian Creek discharges to Boise River below Caldwell, but during the irrigation season much of the flow is diverted before it reaches Boise River. The largest diversions from the system are the Notus Canal which diverts flow from the Wilson and Elijah Drains to the north side of Boise River, and the Riverside Canal which diverts flow from Indian Creek below Caldwell. Discharge to Boise River is highly variable, ranging from 250 cfs at the end of the irrigation season to less than 100 cfs when canals are diverting water from the creek.

North and South Middleton: The two forks of the Middleton Drain drain the area below the Middleton Canal between Eagle and Middleton. The drain discharges to Boise River at Middleton. Discharge varies from 200 cfs in the summer to 50 cfs in the winter.

Willow Creek: Willow Creek also discharges to Boise River at Middleton. It collects return flows from the area irrigated by the lower end of the Middleton Canal and by the last few miles of the "C" Line East

Canal of the Payette Division of the Boise Project, which diverts water from the Payette River to Boise Valley. Discharge in Willow Creek varies from 50 cfs in the spring to almost no flow in the winter.

Hartley Drain and Gulch: The two forks of this drain enter the Boise River above Caldwell. It drains the area receiving water from the lower end of the Middleton and Canyon County canals. It also drains a large portion of the Black Canyon Irrigation District that obtains water from the "C" Line East Canal between Willow Creek and Conway Gulch. Discharge ranges from 100 cfs in the summer to less than 25 cfs in the winter.

Conway Gulch: Conway Gulch drains the area irrigated by the "C" Line East, "C" Line West, and Notus Canals between Hartley Gulch and Sand Run Gulch. These canals irrigate land in the Payette Division of the Boise Project, Conway Gulch discharges to Boise River at Notus. Discharge varies from 60 cfs in the summer to 200 cfs in the winter.

Sand Run Gulch: The last major drain north of Boise River before it reaches Snake River is Sand Run Gulch which parallels Boise River for more than ten miles before the drain discharges to Snake River. Return flows from the area irrigated by the Boise Project "D" Line Canal and the Sebree Canal contribute flow to this drain. A November flow of 75 cfs has been observed near the end of the drain.

Dixie Slough: The Dixie Slough is the last major drain on the south side of Boise River which discharges directly to the river. The drain collects return flows from the irrigated area below the Riverside Canal from Caldwell to a point about five miles below Notus. Flows range from 275 cfs in the summer to less than 100 cfs in the winter. The discharge of this drain is highly variable during the irrigation season because of variations in reuse of the drain water.

Ross East End Drain: Return flows from land irrigated south of the river by the lower end of the Riverside Canal are collected by the Ross East End Drain. This drain eventually discharges to Snake River. A November discharge of 12 cfs has been observed near the end of the drain.

After irrigation diversions begin in April, the flow in surface drains increases until a somewhat steady rate is reached, and this flow is maintained throughout the irrigation season. When diversions for irrigation are completed in October, the drain system return flows gradually decrease throughout the winter as groundwater levels decline. In late March the drains are found to have the lowest discharge of the year. Local storms often cause the drains to discharge at unusually high rates for short periods of time.

All of the principal drains enter the Boise River below the streamgage at Boise; only two of the drains enter below Notus. The largest drains are concentrated in the reach of the river between the cities of Middleton and Caldwell. When the natural flow of the river becomes too small to satisfy all diversions and many canals begin to use storage water, canals below Middleton usually obtain all of their water from surface and seepage return flows to the river. Only in very dry years when drains are discharging

less than normal do these canals need additional water from storage. Even during years of extremely low runoff, canals on the lower end of the river below Notus do not require storage water.

Discharge Measurements

Measurements of discharges of all the major drains which discharge to Boise River are reported by the Boise River Watermaster for the irrigation season only, April 15 to October 15. Daily values are estimated by interpolating between weekly measurements. The length of historic record varies with each drain, and locations of measurements have changed throughout the period. The Boise River Watermaster has measured all drains three times during the non-irrigation season, in November 1971, February 1972, and March 1973.

Distribution and Composition of Total Gain

Very little return flow enters the Boise River above Boise. In this reach there are no major surface drains. The total gain to the river from Lucky Peak to Boise is negative throughout most of the year. From Boise to Notus, the total gain to the river can be calculated by adding the recorded diversions to the gage difference. The total gain includes all surface return flows and groundwater gains or losses. Because natural runoff is very small in this reach, the total gain is a good representation of total return flow to the river. The table on the following page lists the Boise - Notus total gain by month in thousands of acre-feet for the years 1959-72.

The total gain to Boise River follows the same pattern as individual surface drains. The lowest gain is in March just prior to the irrigation season. The total gain from the Boise River at Boise to the Boise River at Notus gaging stations is approximately 500 cfs. By May the gain usually increases to 1000 to 1500 cfs. The gain remains at this level through September and gradually decreases throughout the non-irrigation season.

In a given year, the magnitude of the total return to the river varies with the available water supply. In the low runoff year of 1961, the Boise to Notus return averaged under 1000 cfs during the irrigation season; in the same period of the high runoff year of 1965, this gain averaged over 1500 cfs. This relationship can be explained by the fact that less efficient use is made of the available water when the supply is abundant. When the supply is low, gross diversions are less and more of the surface return is reused. The drain discharges become highly variable during periods of greater water reuse.

An estimate of the distribution of the gain by reach from Boise to Notus was found by calculating the net gain above Eagle Island, near Star below the Caldwell Highline Canal, and at Caldwell Bridge, based on miscellaneous measurements at these locations. It was found that the ratio of the gain in these reaches to the total gain does not vary greatly throughout the year. The following ratios were calculated for the four reaches: Boise to above Eagle Island - 0.06; above Eagle Island to near Star - 0.13; near Star to Caldwell Bridge - 0.39; Caldwell Bridge to Notus - 0.42.

TOTAL GAIN TO BOISE RIVER BETWEEN BOISE AND NOTUS (1000 AC-FT)

W-YR	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	TOTAL
59	65.2	42.3	37.3	32.0	27.1	25.6	41.2	94.6	72.0	73.4	94.5	82.6	687.8
60	61.1	38.2	34.1	34.3	36.0	33.9	31.4	109.0	84.3	82.1	90.8	81.3	716.5
61	63.0	43.2	38.3	32.6	28.5	28.1	26.1	66.9	63.3	56.7	52.8	63.1	562.6
62	49.7	36.6	33.3	30.4	32.8	29.8	31.1	79.8	55.5	72.5	75.3	79.8	606.6
63	70.6	41.2	36.8	31.3	40.9	28.8	29.8	58.4	88.0	70.0	75.1	83.4	654.3
64	63.4	45.8	39.9	42.5	38.3	42.0	40.5	64.6	88.9	75.9	88.3	88.5	718.6
65	62.3	42.1	46.4	42.1	30.6	36.0	69.7	92.4	101.6	91.1	96.2	82.4	792.9
66	68.7	44.0	37.5	32.8	26.7	24.7	64.5	83.9	87.9	69.8	68.9	68.7	678.1
67	56.1	41.1	38.6	34.5	29.9	25.8	40.6	63.5	78.6	76.9	76.0	81.5	643.1
68	66.3	40.9	37.2	34.8	30.5	26.3	22.1	65.1	67.3	66.9	81.3	61.1	599.8
69	61.5	42.3	39.3	49.5	33.0	42.3	52.1	89.3	89.4	74.2	76.1	75.0	724.0
70	66.7	43.4	40.4	52.7	36.9	37.4	51.3	93.4	89.8	93.0	85.3	97.1	787.4
71	65.7	46.2	42.7	56.9	41.3	56.8	71.5	123.6	124.9	95.6	84.1	87.0	896.3
72	70.8	45.6	44.2	48.6	77.2	71.8	63.7	91.6	93.1	85.1	96.6	94.7	883.0
AVG.	63.6	42.3	39.0	39.6	36.4	36.4	45.4	84.0	84.6	77.4	81.5	80.4	710.8

TOTAL GAIN TO BOISE RIVER BETWEEN BOISE AND NOTUS (1000 AC-FT)

YR	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	TOTAL
59	65.2	42.3	37.3	32.0	27.1	25.6	41.2	94.6	72.0	73.4	94.5	82.6	687.8
60	61.1	38.2	34.1	34.3	36.0	33.9	31.4	109.0	84.3	82.1	90.8	81.3	716.5
61	63.0	43.2	38.3	32.6	28.5	28.1	26.1	66.9	63.3	56.7	52.8	63.1	562.6
62	49.7	36.6	33.3	30.4	32.8	29.8	31.1	79.8	55.5	72.5	75.3	79.8	606.6
63	70.6	41.2	36.8	31.3	40.9	28.8	29.8	58.4	88.0	70.0	75.1	83.4	654.3
64	63.4	45.8	39.9	42.5	38.3	42.0	40.5	64.6	88.9	75.9	88.3	88.5	718.6
65	62.3	42.1	46.4	42.1	30.6	36.0	69.7	92.4	101.6	91.1	96.2	82.4	792.9
66	68.7	44.0	37.5	32.8	26.7	24.7	64.5	83.9	87.9	69.8	68.9	68.7	678.1
67	56.1	41.1	38.6	34.5	29.9	25.8	40.6	63.5	78.6	76.9	76.0	81.5	643.1
68	66.3	40.9	37.2	34.8	30.5	26.3	22.1	65.1	67.3	66.9	81.3	61.1	599.8
69	61.5	42.3	39.3	49.5	33.0	42.3	52.1	89.3	89.4	74.2	76.1	75.0	724.0
70	66.7	43.4	40.4	52.7	36.9	37.4	51.3	93.4	89.8	93.0	85.3	97.1	787.4
71	65.7	46.2	42.7	56.9	41.3	56.8	71.5	123.6	124.9	95.6	84.1	87.0	896.3
72	70.8	45.6	44.2	48.6	77.2	71.8	63.7	91.6	93.1	85.1	96.6	94.7	883.0
AVG.	63.6	42.3	39.0	39.6	36.4	36.4	45.4	84.0	84.6	77.4	81.5	80.4	710.8

It is significant to note that over 80 percent of the return is below Star.

Of the total gain from Boise to Notus, the major source is from surface drains. Based on 1959-72 measurements taken by the Boise River Watermaster, 60 to 65 percent of the gain is contributed by the eleven major surface drains during their peak discharge, from April through October. From miscellaneous measurements taken in the non-irrigation season on days that did not follow excessive precipitation, it was found that these same drains accounted for about 75 percent of the total Boise to Notus gain. This increase is logical since diversions from surface drains are generally not made after October 15. The remainder of the gain, or the unidentified gain, originates from very small surface drains which flow during the irrigation season and from groundwater seepage directly to the river channel.

The total gain from Notus to Parma varies in much the same manner as the upper portion of the river. Limited data indicates that the total gain approaches 500 cfs during the irrigation season and decreases to zero by the end of March. Two major surface drains, Dixie Drain and Conway Gulch, discharge into the river in this reach. These two drains comprise about 65% of the total gain from May through September when the gain is at its peak. No data exists on return to the river below Parma; however, there are no major surface drains that discharge into the river below that location.

Diversion - Return Flow Relationships

Because of extensive reuse of water for irrigation, it is very difficult to estimate the effect of any single diversion on the return flow to Boise River. The absence of any continuous record of flow in the river between Boise and Notus prohibits analysis of diversion-return flow relationships even by general areas. An estimate of the return from Boise to Parma can be made by comparing the total annual gain to the river to gross diversions. Diversion from the Boise River from Diversion Dam to Parma average about 1,850,000 acre-feet. By adding to this the average diversion into the Boise Valley from the Payette River, 250,000 acre-feet, the total annual surface diversion is about 2,100,000 acre-feet. The average annual (1959-72) gain from Boise to Parma is approximately 870,000 acre-feet. Therefore, the average return to the Boise above Parma appears to be in the range of 40 percent of the total surface water diversion. This does not include the entire return, some of which flows directly or indirectly to Snake River.

It is significant to note that over 80 percent of the return is below Star.

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TABLE IN ACRE FEET, SHOWING TOTAL
MONTHLY DRAIN DISCHARGES INTO THE BOISE RIVER
DURING THE IRRIGATION SEASON OF 1982

CHART NO. 13

NAME OF DRAIN	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTALS
BOISE SEWER	1848	1802	1780	1844	1832	1740	828	11674
CONWAY GULCH	1290	3240	3996	4566	4258	4678	2120	24148
DIXIE DRAIN (SLOUGH)	4940	14458	15134	15158	18230	18998	10310	97228
FIVE MILE CREEK	1962	10036	10064	10622	9202	10726	4228	56840
INDIAN CREEK	10194	5668	5786	8252	8798	13122	7626	59446
MASON CREEK	288	988	1078	778	968	1120	320	5540
MASON DRAIN	3112	8902	10448	10246	11398	11532	5450	61088
TOTALS	23,634	45,094	48,286	51,466	54,686	61,916	30,882	315,964

DRAINAGE DISTRICT #2 (ENTERS INTO THE BOISE RIVER)

EAGLE DRAIN	1566	2402	3318	3400	3290	3038	806	17820
HARTLEY DRAIN	1562	3418	4556	4548	4234	4368	2256	24942
HARTLEY GULCH	554	1108	1320	1456	1484	1322	704	7948
NORTH MIDDLETON DRAIN	2304	4284	4858	3900	3678	2834	1172	23030
SOUTH MIDDLETON DRAIN	1672	5930	7124	7072	7732	7126	3200	39856
WILLOW CREEK	2696	3556	2748	2836	2126	3124	1452	18538
TOTALS	10,354	20,698	23,924	23,212	22,544	21,812	9,590	132,134

DIVERTED INTO CANALS

LONG FEEDER	0	526	594	580	388	118	0	2206
STAR FEEDER	432	2440	2706	3664	4008	3668	1286	18204
WATTS CHECK	0	1198	1314	1254	1362	1084	458	6670
TOTALS	432	4,164	4,614	5,498	5,758	4,870	1,744	27,080

TOTAL DRAINAGE DISTRICT #2	10,786	24,862	28,538	28,710	28,302	26,682	11,334	159,214
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DRAINAGE DISTRICT #3

RIDENBAUGH, BOOTH & MEYERS DRAINS	158	410	406	604	494	536	250	2858
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DRAINAGE DISTRICT #4

THURMAN DRAIN	748	1520	1546	1452	1578	1910	710	9464
TOTAL ALL DRAINS	35,326	71,886	78,776	82,232	85,060	91,044	43,176	487,500

CHART NO. 14

SUMMARY TABLE SHOWING BOISE RIVER AT DIVERSION DAM
CANAL DELIVERIES - TRIBUTARY GAIN - SEEPAGE GAIN - NET GAIN
BY MONTHS IN ACRE FEET - 1 APRIL, 1982 THRU 15 OCTOBER, 1982

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTALS
BOISE RIVER AT DIVERSION DAM	454,358	584,396	408,696	382,282	268,300	185,100	75,000	2,358,132
TRIBUTARY GAIN	35,326	71,886	78,776	82,232	85,060	91,044	43,176	487,500
TOTAL AVAILABLE	489,684	656,282	487,472	464,514	353,360	276,144	118,176	2,845,632
DELIVERIES TO CANALS	113,236	323,620	330,082	332,206	338,644	246,062	60,982	1,744,832
NET TRIBUTARY GAIN UNUSED	376,448	332,662	157,390	132,308	14,716	30,082	57,194	1,100,800
SEEPAGE GAIN	0	0	0	0	0	0	0	0

TOTAL MONTHLY FLOW IN ACRE FEET AND AVERAGE
DAILY FLOW IN SECOND FEET OF ALL DRAINS IN
DRAINAGE DISTRICT #2, FOR 29,000 ACRES

[illegible]

TABLE SHOWING TOTAL DISCHARGE OF ALL DRAINS
IN DRAINAGE DISTRICT #3, FOR 4,200 ACRES

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTALS
AVERAGE DAILY FLOW IN SECOND FEET	2.63	6.61	6.77	9.74	7.97	8.93	8.33	7.28
TOTAL MONTHLY FLOW IN ACRE FEET	158	410	406	604	494	536	250	2858
ACRE FEET PER ACRE	.04	.10	.10	.14	.12	.13	.06	.68

TABLE SHOWING TOTAL DISCHARGE OF ALL DRAINS
IN DRAINAGE DISTRICT #4, FOR 2,500 ACRES

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	TOTALS
AVERAGE DAILY FLOW IN SECOND FEET	12.47	24.52	25.77	23.42	25.45	31.83	23.67	23.88
TOTAL MONTHLY FLOW IN ACRE FEET	748	1520	1546	1452	1578	1910	710	9464
ACRE FEET PER ACRE	.30	.61	.62	.58	.63	.76	.28	3.79

SUMMARY TABLE IN SECOND FEET
 SHOWING AVERAGE DAILY RETURN FLOW TO THE BOISE RIVER
 FOR THE LAST 15 YEARS

MONTH	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
APRIL	289	592	457	775	645	626	596	395	717	468	634	536	580	698	589
MAY	927	1016	1063	1112	1192	949	1063	962	1067	945	906	967	1217	1150	1159
JUNE	1017	1181	1205	1369	1365	1113	1196	1238	1392	853	1165	1138	1253	1318	1313
JULY	1086	947	1107	1259	1282	1097	1233	1264	1327	858	1278	1222	1223	1196	1326
AUGUST	1055	1010	1197	1294	1298	1102	1284	1387	1531	817	1279	1237	1306	1203	1372
SEPTEMBER	910	1048	1345	1472	1462	1204	1389	1326	1519	955	1286	1144	1455	1296	1517
OCTOBER	1028	1065	1136	1384	1364	1201	1282	1489	1117	875	1242	1072	1061	1382	1439
AVERAGE	902	980	1073	1238	1230	1042	1149	1152	1239	824	1113	1044	1156	1178	1245

DISTRIBUTION OF DRAINAGE WATER
TO VARIOUS CANALS

CHART NO. 20

DRAINAGE DISTRICT NO. 2

	PERCENT OF TOTAL		PERCENT OF TOTAL
FARMERS UNION	20.99	CANYON COUNTY	12.68
BOISE VALLEY	10.03	BALLENTYNE	3.04
NEW DRY CREEK	9.47	BOISE CITY	3.01
NEW UNION	1.21	CONSUMERS	.11
MIDDLETON CANAL	35.00	LITTLE PIONEER	4.46

THE CREDITS GIVEN ABOVE ARE BASED ON A DRAINAGE FLOW OF 100 SECOND FEET.

JUDGE BRINK ORDERS, AUGUST, 1928, GIVES 90 INCHES ADDITIONAL TO FARMERS UNION.

DRAINAGE DISTRICT NO. 3

	PERCENT OF TOTAL		PERCENT OF TOTAL
BOARD OF CONTROL	49.00	ROSSI MILL	10.00
RIDENBAUGH	24.00	MEEVES	2.00
BUBB (SOUTH BOISE MUTUAL)	15.00		

THE CREDITS GIVEN ARE BASED UPON A DRAINAGE DISCHARGE OF 15 SECOND FEET.

DRAINAGE DISTRICT NO. 4

THURMAN MILL	570.98 INCHES
RIDENBAUGH	51.34 "
WARM SPRINGS SLOUGH	127.68 "

THE CREDITS ABOVE ARE BASED ON A DRAINAGE DISCHARGE OF 750 INCHES, AND THE AMOUNTS ARE A DIRECT COURT ORDER.

INTERVENORS - STEWART DECREE

CHART NO. 21

BOISE RIVER

NUMBER	DATE	NAME	CANAL	AMOUNT DECREED		DEPT. OF WATER ADMINISTRATION
				SEC. FT.	INCHES	
8-A	4-1-1865	ADOLPH BAHLER	BAHLER	.80	40	63-0278
8-B	4-1-1865	FIRST NAT. BANK OF PUEBLO	BUBB	1.80	90	63-0280
8-C	1865	LOUISE SIMONSON	LEMP DITCH	6.00	300	63-0270
8-D	1865	S. G. HARDIES	BUBB	.50	25	63-0281
31-A	6-1-1866	WM. MUSSER	LAWRENCE & KENNEDY	2.30	115	63-0254
31-B	6-1-1866	MINNIE & JEREMIAH COUZENS	MIDDLETON WATER	.60	30	63-0255
31-C	6-1-1866	ALBERT C. BOWERMAN	LAWRENCE & KENNEDY	1.10	55	63-0001
35-A	6-1-1867	RALPH T. KNIGHT & ORA K. TILLER	CANYON COUNTY WATER CO.	1.76	88	63-0277
47-A	4-1-1870	ADOLPH BAHLER	BAHLER	.80	40	63-0279
50-A	1870	(S. G. HARDIES (AMELIA EISLEY	BUBB	1.00	50	63-0282) 63-0283)
59-A	5-1-1875	KARL F. & OTTO W. ROEDEL	INDIAN CREEK	3.20	160	63-0305
66-A	4-1-1878	J. S. KRAUSS	BALLENTYNE	.80	40	63-0265
66-C	4-1-1878	J. W. KOLANDER	BALLENTYNE	1.40	70	63-0289
66-D	4-1-1878	M. T. GRIFFITH	BALLENTYNE	.80	40	63-0264
71-A	4-1-1879	ISLAND HIGH LINE DITCH	ISLAND HIGH LINE DITCH	3.00	150	63-0291
73-A	4-1-1880	GOBLE & SONGER	NEW DRY CREEK	.54	27	63-0288
73-B	1880	ALBERT LEMP ET AL	BAXTER DITCH	3.20	160	63-0368
74-A	6-1-1880	C. B. FRANK	NEW DRY CREEK	1.816	90.8	63-0263
77-A	6-1-1881	GUS A. BARTH	PARMA DITCH CO.	1.60	80	63-0272
77-B	6-1-1881	CHARLES JURRIES	PARMA DITCH CO.	.34	17	63-0274
77-C	6-1-1881	JAMES FINLAY	PARMA DITCH CO.	.80	40	63-0275
77-D	6-1-1881	LESTER J. SHIPPY	PARMA DITCH CO.	1.30	65	63-0273
77-E	4-15-1882	ROC HELM	RIVERSIDE IRRIG. DIST.	3.674	183.70	63-0290
85-A	6-1-1882	LEO MARSTERS	WARM SPRINGS SLOUGH	1.76	88.80	63-0287
85-B	4-1-1883	JACOB BINGMAN	SETTLERS	1.00	50	63-0257
85-C	5-1-1883	WM. HUCKBA	NEW DRY CREEK	.2232	11.16	63-0259
85-D	5-1-1883	C. H. SCHMELZER	BALLENTYNE	.8256	41.28	63-0260
85-E	5-1-1883	C. W. MCCLURG	NEW DRY CREEK	.385	19.25	63-0261
106-A	3-1-1889	AMELIA EISLEY	BUBB	.84	42	63-0284
114-A	5-1-1889	NEIL & PATRICK O'DONNELL	O'DONNELL & BARTH	1.60	80	63-0276
114-B	5-1-1889	GUS A. BARTH	O'DONNELL & BARTH	.80	40	63-0271
116-A	6-1-1890	ANNA SPENCER	RIVERSIDE IRRIG. DIST.	.72	36	63-0266
116-B	6-1-1890	WILLIS B. SPENCER	RIVERSIDE IRRIG. DIST.	.10	5	63-0267
116-C	6-1-1890	REBECCA BELL	RIVERSIDE IRRIG. DIST.	.40	20	63-0268
123-A	4-15-1893	OTTO & MARIE MULLER	MIDDLETON MILL DITCH	1.60	80	63-0370
124-A	5-1-1893	W. D. CHARTERS	NEW DRY CREEK	.825	41.25	63-0258
129-A	4-1-1897	H. E. PLAIN	NEW DRY CREEK	.54	27	63-0286
136	5-1-1906	H. E. WIMER	BALLENTYNE	.392	19.6	63-0285
137	5-1-1909	B. P. WEAVERLING	MACE & MACE	1.76	88	63-0253
137-A	4-1-1910	ISLAND HIGH LINE DITCH	ISLAND HIGH LINE DITCH	7.00	350	63-0292
138	6-14-1912	WESLEY A. MACE	MACE & CATLIN	.44	22	63-0361
139	4-1-1915	ISLAND HIGH LINE DITCH CO.	ISLAND HIGH LINE DITCH	10.00	500	63-0293

TABLE SHOWING CHANGE IN POINT OF DIVERSION OF INCREASED RIGHTS ON DRY CREEK

NO. OF CHANGE OF POINT OF DIVERSION	POINT OF DIVERSION		DEPT. OF WATER ADMINISTRATION	PRIORITY NO.	DATE	DATE OF CHANGE	QUANTITY IN CFS	QUANTITY IN INCHES	BY WHOM TRANSFERRED	REMARKS
	FROM	TO								
12	SIERRA	CANYON DITCH	63-0138	9	6-1-1865	4-8-1912	-50	25	HENRY NICK	
29	CALUMELL HIGH LINE	CANYON COUNTY	63-0179	46	6-1-1869	8-26-1918	1.00	30	J. C. HUGHES	
32	DAVIS	DAVIS DITCH	63-0122	119	6-1-1891	7-15-1919	.54	27	DAVID ESTATE	
33	PIONEER DITCH	RIVERSIDE	63-0136	1	9-1-1864	4-3-1919	.72	36	REBECCA BELL	
35			63-0137	45	6-1-1869		1.28	64		FLAKE DITCH
36	CANYON COUNTY	MIDDLETON WATER	63-0168	35	6-1-1867	4-12-1918	.28	19	DAVID, BOOLE, WATT, SURGEON	
36A	CANYON COUNTY	PIONEER DITCH	63-0233	96	10-1-1887	4-19-1909	2.00	100	C. H. ROSENBERGER	
38	HART & DAVIS	SEVEN SUCKERS	63-0186	57	6-1-1872	9-24-1915	1.04	52	SHAFER, BLAIR, JENNINGS, PARBOTT	
39	HART & DAVIS	SEVEN SUCKERS	63-0187	58	6-1-1872	6-12-1918			GEORGE BARNH	
47	AMERICAN DITCH	EUREKA No. 2	63-0233	96	6-1-1872				AMERICAN DITCH ASSN.	
48	AMERICAN DITCH	PIONEER DITCH	63-0233	96	10-1-1887	3-18-1910	25.50	1475	NANCY & WILLIAM NICHOLS, C.W. COOPER	
50	LOWER CENTER POINT	BOWMAN & SWISHER	63-0131	19	6-1-1865	3-31-1910	4.10	210	JOHN SWISHER	
51	LOWER CENTER POINT	BOWMAN & SWISHER	63-0132	20	6-1-1865	3-31-1920	2.88	144	BIRD BOWMAN	
54	CANYON COUNTY	MIDDLETON HILL	63-0168	35	6-1-1867	4-24-1920	6.40	320	H. C. DUDLEY	FOOTE & WISEMAN
57	MIDDLETON WATER	BALLENTINE	63-0198	65	6-1-1877	12-2-1920	1.11	55.5	EDWARD MCCLINTOCK	
59	KENNEDY	CANYON COUNTY	63-0163	31	6-1-1866	3-18-1921	2.60	130	DANIEL M. KENNEDY	
61	KENNEDY & LAWRENCE	MIDDLETON WATER	63-0233	96	6-1-1866	6-22-1921	1.00	50	MINNIE COUZENS	
62	PIONEER DITCH	EUREKA No. 2	63-0233	96	10-1-1887	11-14-1910	.60	30	J. A. CARTRIGHT	
64	BALLENTINE	NEW DRY CREEK	63-0156	24	6-1-1865	12-21-1921	.20	10	HARRY SEAVEY	
71	UPPER CENTER POINT	EUREKA No. 2	63-0168	35	6-1-1867	3-18-1925	.50	40	J. D. ROLAND	
73	MIDDLETON HILL	CANYON COUNTY	63-0233	96	6-1-1867	11-25-1924	.50	25	DE TROCK, NORTHWESTERN & PACIFIC HYPOTHECABANK	
76	THOMPSON DRAIN	SETTLERS	63-0233	96	6-1-1867	3-18-1925	1.00	50	JACOB BINGMAN	
77	BORE	BAHLER	63-0233	96	6-1-1865	4-26-1925	.80	40	ADOLPH BAHLER	
83	WARM SPRINGS DITCH	SETTLERS	63-0233	96	6-1-1870	4-29-1926	.80	40	LEO MARSTERS	
84	MIDDLETON WATER	FARMERS UNION	63-0198	65	6-1-1882	3-9-1926	.78	36	J. C. RALPHS	
85	UPPER CENTER POINT	EUREKA No. 2	63-0156	24	6-1-1865	5-7-1926	.80	40	J. C. RALPHS	
109	PANAMA DITCH	PANAMA DITCH	63-0209	71	6-1-1878	10-3-1928	.50	25	J. C. RALPHS	NEW DIVERSION POINT
			63-0209	71	6-1-1890		11.96	598	CHARLES JUMIES	
126	LAWRENCE & KENNEDY	MIDDLETON WATER	63-0234	31A	6-1-1866	3-25-1931	2.30	115	WILLIAM NUSSE	
127	BOWMAN & SWISHER	BAHLER DITCH	63-0152	20	6-1-1865	8-15-1930	.80	40	WILLIAM BAXTER	
131	EUREKA No. 2	LOWER CENTER POINT	63-0233	96	11-9-1883	1-16-1932	.70	35	R. E. MCQUIRE	
140	BALLENTINE	NEW DRY CREEK	63-0260	850	5-1-1863	4-11-1934	.06	3	CHARLES H. SCHMIDT	
141	FISCHER POWER	FISCHER POWER	63-0233	96	12-4-1908	12-18-1934	200.00	10000	FISCHER POWER ONLY	BELOW FAIRVIEW BRIDGE
147	MIDDLETON HILL	CANYON COUNTY	63-0168	35	6-1-1867	1-8-1936	.20	10	CORA M. CLIFTON	
148	PIONEER DITCH	UPPER CENTER POINT	63-0233	96	10-1-1887	4-17-1936	3.00	150	DORA GREER	
151	NEW DRY CREEK	BALLENTINE	63-0238	124A	5-1-1893	2-18-1937	.135	6.75	J. H. CONE	
152	BAHLER DITCH	RIDENBAUGH	63-0279	47A	4-1-1870	5-15-1937	.80	40	ADOLPH BAHLER	
153	REIN-KEON-BAHLER	RIDENBAUGH	63-0249	127	5-1-1895	5-15-1937	1.00	50	ADOLPH BAHLER	
154	BAHLER DITCH	RIDENBAUGH	63-0278	8A	4-1-1865	5-15-1937	.80	40	ADOLPH BAHLER	
159	UPPER CENTER POINT	EUREKA No. 2	63-0156	24	6-1-1865	5-27-1939	.10	5	RAYMOND T. BRESHAUS	
161	BALLENTINE	NEW DRY CREEK	63-0239	103	6-1-1888	5-5-1940	.65	32.5	STANLEY L. BARNER	
166	PIONEER DITCH	EUREKA No. 2	63-0233	96	10-1-1887	4-21-1941	.60	30	D. W. BALDWIN	
171	EUREKA No. 2	EUREKA No. 2	63-0233	96	11-9-1883	2-26-1945	21.70	1085	RAYMOND T. BRESHAUS	NEW DIVERSION POINT
			63-0233	96	10-1-1887		29.50	1475		
			63-0156	24	6-1-1865		1.30	65		

NO. OF TRANSFER	POINT OF DIVERSION		DEPT. OF WATER ADMINISTRATION	PRIORITY NO.	DATE TRANSFER	QUANTITY IN CFS.	QUANTITY IN INCHES	BY WHOM TRANSFERRED	REMARKS
	FROM	TO							
38	AMERICAN DITCH ASSN.	CANYON DITCH	63-0273	96	10-1-1887	12.10	605	SM. M. NESSLER	BEMBRUP
46	BARBER LUMBER CO.	PENITENTIARY	63-0184	50	6-1-1870	2.24	112	BARBER LUMBER CO.	
105	SIERRA LEBERS	CANYON DITCH	63-0138	9	6-1-1865	.50	25	H. E. MEY	
111	EMERX NO. 2	HILLONIST	(63-0233	(96	10-1-1887	1.20	60	H. L. RANDALL ET AL	
	PIONEER DITCH	"	(63-0136	(8	9-1-1864	20.34	1017		
136	JACONS	FARMERS UNION	(63-0137	(45	6-1-1869	20.00	1000	BOISE FRUIT TRACT CO.	LICENSED RIGHT INDIAN CREEK
219	PIONEER IRRIGATION DIST.	PIONEER IRRIGATION DIST.	(63-0123	(2	6-1-1864	8.64	432	PIONEER IRRIGATION DISTRICT	
300	MIDDLETON HILL	NEW DRY CREEK	(63-0124	(3	6-1-1864	.35	17.5	EMMA M. FOWLER	
			(63-0125	(34	6-1-1871				
301	MIDDLETON HILL	NEW DRY CREEK	(63-0124	(3	6-1-1864	1.54	77	JOHN F. GROOM	
			(63-0125	(120	6-1-1891				
347	MIDDLETON HILL	SETTLERS	(63-0124	(3	6-1-1864	.14	7	C. E. WHITE	
349	MIDDLETON HILL	SETTLERS	(63-0124	(3	6-1-1864	.14	7	FRANK REASEL	
350	MIDDLETON HILL	SETTLERS	(63-0124	(3	6-1-1864	.14	7	CARL A. GISH	
357	MIDDLETON WATER	SETTLERS	(63-0199	(65	6-1-1877	.20	10	NELLIE B. WHITAKER	
370	BOISE CITY	FARMERS UNION	(63-0165	(33	6-1-1866	1.125	56.2	HENRY M. BARTLETT	
373	BOISE CITY	FARMERS UNION	(63-0165	(33	6-1-1866	.375	18.7	L. A. RICE	
374	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.40	20	M. D. PARKS	
375	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.40	20	A. G. WINE	
384	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.40	20	MARY F. LEACH	
385	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.266	13.3	H. E. MCCONNELL	
386	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.40	20	M. M. BARTLETT	
387	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.40	20	E. E. SMITH	
391	MIDDLETON HILL	FARMERS UNION	(63-0124	(3	6-1-1864	.15	7.5	ROSE CHASE	
			(63-0125	(34	6-1-1871				
392	MIDDLETON WATER	RIDENBAUGH	(63-0125	(65	6-1-1877	.40	20	FRED EMBERS	
393	MIDDLETON HILL	FARMERS UNION	(63-0124	(3	6-1-1864	.288	14.4	A. C. BOURGHEAN	
			(63-0125	(34	6-1-1871				
395	MIDDLETON WATER	FARMERS UNION	(63-0198	(65	6-1-1877	.50	25	G. R. MOORE	FORMERLY MIDDLETON WATER
412	THAMMAN HILL	SETTLERS	(63-0214	(81	6-1-1882	.40	20	CHAS. P. RACE	
430	FARMERS UNION	SETTLERS	(63-0198	(65	6-1-1877	.25	12.5	D. E. ALLISON	
466	RIDENBAUGH	NEW YORK	(63-0200	(106	8-20-1888	8.90	445	M. H. TULLER	
512	JACONS CANAL	FARMERS UNION	(63-0120	(1	6-1-1864	1.00	50	M. SCOTT ANDERSON	
513	JACONS CANAL	FARMERS UNION	(63-0120	(1	6-1-1864	.50	25	FARMERS UNION DITCH	
530	JACONS CANAL	FARMERS UNION	(63-0120	(1	6-1-1864	.50	25	A. B. WHITNEY	
595	JACONS CANAL	NAPA MERIDIAN	(63-0120	(1	6-1-1864	.20	10	ROSE TRUST CO.	
		SETTLERS	(63-0120	(1	6-1-1864	.20	10		
608	RIVERSIDE	PIONEER DITCH	(63-0222	(88	6-1-1883	1.00	50	M. F. TRACY	LARNER-HAMMING-BUDGE TRACTS
644	RIVERSIDE	PIONEER DITCH	(63-0222	(88	6-1-1883	.70	35	S. E. SMITH	
654	CONSUMERS	SETTLERS	(63-0161	(30	5-1-1866	2.00	100	M. M. HOWELL	
660	RIVERSIDE	SETTLERS	(63-0161	(30	5-1-1866	.60	30	D. M. BALDWIN	
694	CONSUMERS	SETTLERS	(63-0222	(88	6-1-1883	.68	34	M. M. HOWELL	
701	CONSUMERS	NEW YORK	(63-0161	(30	5-1-1866	2.00	100	M. M. HOWELL	
702	CONSUMERS	SETTLERS	(63-0161	(30	5-1-1866	.60	30	M. M. HOWELL	
712	CONSUMERS	SETTLERS	(63-0161	(30	5-1-1866	.60	30	M. M. HOWELL	
715	CONSUMERS	NEW DRY CREEK	(63-0161	(30	5-1-1866	.90	45	M. M. HOWELL	
717	SIERRA LEBERS	FARMERS CO-OP.	(63-0138	(9	6-1-1866	.54	27	MRS. EDITH CURTIS	
720	CONSUMERS	SETTLERS	(63-0161	(30	5-1-1866	.64	32	SIMPSON-DRONON-SIMPSON	
			(63-0161	(30	5-1-1866	1.34	67	J. S. BRENE	
			(63-0161	(30	5-1-1866			R. M. TUCKER	
			(63-0161	(30	5-1-1866			M. M. HOWELL	

DOTY-ENQUIAGA-ORENHOFF-
CALDWELL-STEEL-BOYLANCE

NL. OF TRANSFER	POINT OF DIVERSION		DEPT. OF WATER ADMINISTRATION	PRIORITY		DATE OF TRANSFER	QUANTITY		BY WHOM TRANSFERRED	REMARKS
	FROM	TO		NO.	DATE		IN CFS	IN INCHES		
736	THURMAN HILL	SETTLERS	63-0170	37	6-1-1866	3-9-1949	1.00	30	AIRCRAFT SERVICE CO.	
737	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	3-9-1949	1.10	35	W. W. HOWELL	
739	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	4-2-1949	.15	7.5	W. W. HOWELL	
733	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	4-14-1950	.46	29	J. R. FIELD	B" HAGER TRACT, 15" KIMBLE TRACT
754	CONSUMERS	MIDDLETON HILL	63-0161	30	5-1-1866	4-14-1950	.40	20	J. R. FIELD	BRINK TRACT
730	HILLCREST	NEW YORK	63-0136	8	9-1-1864	3-28-1952	21.54	1077	FOREST SOWER	
			63-0137	45	6-1-1863					
			63-0233	96	10-1-1887					
823	CONSUMERS	NEW YORK	63-0161	30	5-1-1866	7-13-1954	6.00	300	G. S. TAYLOR	BOISE-IDAHO IRRIGATION DIST.
829	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	9-3-1954	.48	24	G. S. TAYLOR	10"-GOLDEN KENT, 14"-EDMUND BUCKLE
871	THURMAN HILL	SETTLERS	63-0169	36	6-1-1868	10-2-1936	.288	14.4	J. FRANK DRYCE	
872	THURMAN HILL	SETTLERS	63-0169	36	6-1-1868	10-2-1936	.22	11	GEORGE D. KEYBER, JR.	
873	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	10-2-1936	.20	10	G. S. TAYLOR	THEODORE L. JOHNSON TRACT
890	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	7-11-1957	.10	5	FRANCIS H. NEITZEL	R. S. POTTER TRACT
906	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	4-3-1958	.10	5	FRANK NEITZEL	R. W. WHITE TRACT
917	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	12-15-1958	.20	10	FRANCIS H. NEITZEL	MAW-SPRAGUE TRACT
918	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	12-15-1958	.025	1.25	FRANCIS H. NEITZEL	H. P. IRBY TRACT
940	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	2-15-1960	.05	2.5	FRANK NEITZEL	EARL M. & DELLA LUKEHART TRACT
976	CONSUMERS	NEW YORK	63-0161	30	5-1-1866	1-17-1962	1.50	75	G. S. TAYLOR	SYDNEY FRUIT RANCH, INC.
977	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	1-17-1962	.20	10	G. S. TAYLOR	EVERET RAMMO TRACT
979	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	2-23-1962	.10	5	G. S. TAYLOR	R. E. & DAISY M. THOMPSON TRACT
980	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	2-23-1962	.12	6	G. S. TAYLOR	CHESNEY LITTLE TRACT
989	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	5-29-1962	.20	10	G. S. TAYLOR	THELSON E. CHRISTENSEN TRACT
990	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	7-5-1962	.08	4	G. S. TAYLOR	LYLE F. THAPP TRACT
991	CONSUMERS	SETTLERS	63-0161	30	5-1-1866	7-5-1962	.16	8	G. S. TAYLOR	CHARLES G. HYDE TRACT
1007	CONSUMERS	NEW YORK	63-0161	30	5-1-1866	4-17-1963	1.00	50	G. S. TAYLOR	GLENN DRAPER
1809	NEW DRY CREEK	DRAIN DITCH	63-0288	73-A	4-1-1880	5-16-1963	.10	5	NEW DRY CREEK	R. B. BETTY
1010	CONSUMERS	NEW YORK	63-0161	30	5-1-1866	6-24-1963	2.00	100	G. S. TAYLOR	JOHN DOBSON
1011	CONSUMERS	RIVER	63-0161	30	5-1-1866	6-3-1963	3.00	150	G. S. TAYLOR	SURPRISE VALLEY FARMS
1017	CONSUMERS	NEW YORK	63-0161	30	5-1-1866	9-28-1963	.50	30	G. S. TAYLOR	FRANCIS HERMAN TRACT
1035	CONSUMERS	HOPES CREEK	63-0161	30	5-1-1866	9-4-1964	2.08	100	G. S. TAYLOR	CARL NICHOLSON
1038	CONSUMERS	PHYLLIS	63-0161	30	5-1-1866	10-28-1964	21.715	1085.75	G. S. TAYLOR	PIONEER IRRIGATION DIST.
1048	BOISE CITY	FARMERS UNION	63-0165	33	6-1-1866	5-18-1965	.0875	4.38	BOISE CITY CANAL	LEATHERMAN & BINGHAM
1059	BOISE CITY	FARMERS UNION	63-0165	33	6-1-1866	10-28-1965	.10	5	BOISE CITY CANAL	W. T. & HATTIE M. SPRINGER
1074	HOPES CREEK	NEW YORK	63-0161	30	5-1-1866	10-13-1966	2.00	100	CARL NICHOLSON	AYALON ORCHARD TRACTS
1855	HANVILLE & LEONARD	FARMERS UNION	63-0164B	32	6-1-1866	11-17-1975	1.80	90.0	SYRINGA GARDENS	

STEWART DECREE

CHART NO. 24

BOISE RIVER

NUMBER	DATE	NAME	AMOUNT DECREED		DEPT. OF WATER ADMINISTRATION
			SEC. FT.	INCHES	
1	6-1-1864	THOMAS DAVIS	2.20	110	63-0120
2	6-1-1864	JACOBS CANAL CO.	20.00	1000	63-0123
3	6-1-1864	MIDDLETON MILL DITCH	12.80	640	63-0124
4	6-1-1864	THOMAS ANDREWS	3.30	165	63-0127
5	6-1-1864	CATLIN & MACE	2.86	143	63-0132
6	6-1-1864	T. C. CATLIN	3.30	165	63-0134
7	6-1-1864	C. C. HAVIRD	3.30	165	63-0135
8	9-1-1864	PIONEER DIXIE DITCH CO.	20.00	1000	63-0136
9	6-1-1865	SIEBENBERG DITCH CO.	13.42	671	63-0138
10	6-1-1865	ALLEN V. WEBSTER	1.20	60	63-0139
11	6-1-1865	J. F. YARYAN	.66	33	63-0141
12	6-1-1865	GRAHAM & GILBERT	4.40	220	63-0144
13	6-1-1865	EUREKA WATER CO.	33.32	1666	63-0145
14	6-1-1865	NEW UNION DITCH CO.	13.76	688	63-0146
15	6-1-1865	BOISE VALLEY IRRIGATION DITCH CO.	54.58	2729	63-0147
16	6-1-1865	RIDENBAUGH & ROSSI	9.20	460	63-0148
17	6-1-1865	RIDENBAUGH & ROSSI (POWER)	265.80	13290	63-0149
18	6-1-1865	DENVER & IDAHO LAND CO.	.80	40	63-0150
19	6-1-1865	MARTHA BOWMAN	2.88	144	63-0151
20	6-1-1865	BIRD BOWMAN	6.40	320	63-0152
21	6-1-1865	G. W. GESS	2.90	145	63-0153
22	6-1-1865	ROBERT MCGUIRE	3.20	160	63-0154
23	6-1-1865	C. W. COOPER	3.20	160	63-0155
24	6-1-1865	J. W. ROLAND	2.40	120	63-0156
25	6-1-1865	DRAPER & WELLS	3.94	197	63-0157
26	6-1-1865	THOMAS J. PALMER	1.60	80	63-0158
27	6-1-1865	NOAH W. PALMER	1.58	79	63-0159
28	6-1-1865	J. N. TUCKER	7.00	350	63-0160
29	6-1-1865	THOMAS ANDREWS	6.00	300	63-0128
30	5-1-1866	J. PERRAULT & R. JOHNSON	50.00	2500	63-0161
31	6-1-1866	WILLIAM P. KENNEDY	2.60	130	63-0163
32	6-1-1866	MANVILLE & LEONARD	3.50	175	63-0164
33	6-1-1866	BOISE CITY CANAL CO.	38.06	1903	63-0165
34	6-1-1866	FRANKLIN DITCH CO.	15.40	770	63-0166
35	7-3-1866	CANYON COUNTY WATER CO.	75.80	3790	63-0168
36	6-1-1867	MARTHA E. MCCARTY	14.10	705	63-0169
37	6-1-1868	H. D. & DORA GOODMAN	3.70	185	63-0170
38	6-1-1868	T. T. JOHNSON	3.20	160	63-0171
39	6-1-1868	ROSS, ALLEN, DILLEY & ROSS	8.54	427	63-0172
40	6-1-1868	S. S. GRAY	1.40	70	63-0173
41	6-1-1869	JOHN MAMMON	1.80	90	63-0174
42	6-1-1869	ISAAC BEDAL	1.60	80	63-0176
43	6-1-1869	FREDERICK ODE	3.60	180	63-0177
44	6-1-1869	PRIOR BURNETT	8.50	425	63-0178
45	6-1-1869	PIONEER DIXIE DITCH CO.	35.44	1772	63-0137

STEWART DECREE

CHART NO. 24

BOISE RIVER

NUMBER	DATE	NAME	AMOUNT DECREED		DEPT. OF WATER ADMINISTRATION
			SEC. FT.	INCHES	
46	6-1-1869	MASON CREEK DITCH CO.	37.20	1860	63-0179
47	6-1-1869	T. W. BOONE	3.50	175	63-0180
48	6-1-1870	W. J. HAMMING	2.60	130	63-0182
49	6-1-1870	PIONEER CANAL	25.72	1286	63-0183
50	6-1-1870	BARBER LUMBER CO.	2.24	112	63-0184
51	6-1-1870	THOMAS ANDREWS	1.30	65	63-0129
52	6-1-1871	CATLIN & MACE	7.86	393	63-0133
53	6-1-1871	PETER MEEVES	1.80	90	63-0185
54	6-1-1871	MIDDLETON MILL DITCH CO.	33.70	1685	63-0125
55	6-1-1872	J. F. YARYAN	.70	35	63-0142
56	6-1-1872	J. F. YARYAN	1.40	70	63-0143
57	6-1-1872	MARY C. DAVIS	4.40	220	63-0186
58	6-1-1872	EDWARD N. HART	3.30	165	63-0187
59	6-1-1874	T. W. BOONE	2.20	110	63-0181
60	6-1-1875	FARMERS COOPERATIVE DITCH CO.	10.00	500	63-0188
61	6-1-1876	EDWARD & MARY CLARK	2.30	115	63-0192
62	6-1-1876	JOHN CECIL	.44	22	63-0193
63	6-1-1877	THOMAS AIKENS	5.20	260	63-0194
64	6-1-1877	W. H. CONWAY	.90	45	63-0196
65	6-1-1877	MIDDLETON WATER CO.	114.08	5704	63-0198
66	7-1-1877	PERRAULT & JOHNSON (POWER)	200.00	10000	63-0162
67	5-1-1878	NAMPA MERIDIAN IRRIGATION DISTRICT	170.00	8500	63-0199
68	6-1-1878	JOHN MAMMON	4.20	210	63-0175
69	6-1-1878	JULIA MAMMON	3.36	168	63-0201
70	6-1-1878	CHARLES ALLEN	8.80	440	63-0202
71	6-1-1878	R. H. STOCKTON	4.40	220	63-0203
72	6-1-1879	NEW DRY CREEK DITCH CO.	31.32	1566	63-0205
73	6-1-1879	D. MUMFORD	4.00	200	63-0208
74	6-1-1879	SMITH STOCKTON	1.76	88	63-0209
75	6-1-1880	ISHAM JOPLIN	2.40	120	63-0210
76	7-1-1880	JOSEPH GOBLE	.90	45	63-0211
77	10-20-1880	FRANKLIN DITCH CO.	27.60	1380	63-0167
78	10-29-1880	ALLEN V. WEBSTER	.90	45	63-0140
79	6-1-1882	SUSIE CAMPBELL	.60	30	63-0212
80	6-1-1882	J. T. BARBER	1.60	80	63-0213
81	6-1-1882	SONORA JOPLIN	3.40	170	63-0214
82	6-1-1882	S. W. HUTCHINSON	.44	22	63-0217
83	6-1-1882	JOHNSON	.44	22	63-0218
84	6-1-1882	ANDREW J. JOPLIN	2.86	143	63-0219
85	6-1-1882	JAMES L. GRAHAM	2.20	110	63-0220
86	6-1-1882	FARMERS COOPERATIVE DITCH CO.	20.00	1000	63-0189
87	6-1-1883	FRANCIS M. JOPLIN	.90	45	63-0221
88	6-1-1883	W. A. BLACK	12.00	600	63-0222
89	6-1-1883	EUREKA DITCH CO. NO. 2	21.70	1085	63-0223
90	6-1-1884	PIONEER IRRIGATION DISTRICT	53.10	2655	63-0371

STEWART DECREE

CHART NO. 24

BOISE RIVER

NUMBER	DATE	NAME	AMOUNT DECREED		DEPT. OF WATER ADMINISTRATION
			SEC. FT.	INCHES	
91	6-1-1884	RIVERSIDE IRRIGATION DISTRICT	20.00	1000	63-0226
92	10-17-1884	SETTLERS CANAL CO.	99.06	4953	63-0230
93	6-1-1886	NEW DRY CREEK DITCH	15.22	761	63-0206
94	6-1-1886	THOMAS DAVIS	13.40	670	63-0121
95	1-23-1887	WM. C., L. & E. YOUNG	4.00	200	63-0232
96	10-1-1887	AMERICAN DITCH ASSOCIATION	47.80	2390	63-0233
97	6-1-1888	NEW DRY CREEK DITCH CO.	7.86	393	63-0207
98	6-1-1888	A. V. LINDER	4.00	200	63-0234
99	6-1-1888	LEVI SMITH	1.30	65	63-0235
100	6-1-1888	CHARLOTTE CALHOUN	1.40	70	63-0236
101	6-1-1888	ED. J. LINDER	1.46	73	63-0237
102	6-1-1888	LIZZIE EVERETT	1.20	60	63-0238
103	6-1-1888	JESSE WILSON	1.40	70	63-0239
104	6-1-1888	THOMAS ANDREWS	.90	45	63-0130
105	7-1-1888	FARMERS COOPERATIVE DITCH CO.	50.00	2500	63-0190
106	8-20-1888	NAMPA MERIDIAN IRRIGATION DISTRICT	370.84	18542	63-0200
107	5-1-1889	CHARLES H. MILLER	.06	3	63-0240
108	5-1-1889	LOOMIS L. HOSLEY	.02	1	63-0241
109	5-1-1889	S. J. UTTER & C. B. TAYLOR	2.40	120	63-0242
110	5-1-1889	SOUTH BOISE MUTUAL IRRIGATION CO.	6.00	300	63-0243
111	5-1-1889	ESTATE OF J. H. GALLAGHER	2.94	147	63-0244
112	5-1-1889	ANNIE H. FOGARTY	.05	2.5	63-0245
113	5-1-1889	GRACE CALL	.10	5	63-0246
114	5-1-1889	SAMUEL H. CANFIELD	.03	1.5	63-0247
115	5-1-1889	SAMUEL H. CANFIELD	.06	3	63-0215
116	6-1-1889	SONORA JOPLIN	1.20	60	63-0216
117	6-1-1889	SONORA JOPLIN	200.00	10000	63-0224
118	9-1-1890	PIONEER IRRIGATION DISTRICT	2.20	110	63-0197
119	6-1-1891	W. H. CONWAY	.54	27	63-0122
120	6-1-1891	THOMAS DAVIS	17.00	850	63-0126
121	6-1-1891	MIDDLETON MILL DITCH CO.	3.50	175	63-0131
122	6-1-1891	THOMAS ANDREWS	73.44	3672	63-0231
123	6-1-1891	SETTLERS CANAL CO.	.80	40	63-0195
124	6-1-1891	THOMAS AIKEN	80.00	4000	63-0227
125	5-1-1893	RIVERSIDE IRRIGATION DISTRICT	1.76	88	63-0204
126	6-1-1894	R. H. STOCKTON	110.00	5500	63-0248
127	7-2-1894	FARMERS UNION DITCH CO.	1.00	50	63-0249
128	5-1-1895	CHARLES REIN & JANE KEON	.66	33	63-0250
129	7-1-1895	MATHEW CASEY	83.50	4175	63-0191
130	7-1-1896	FARMERS COOPERATIVE DITCH CO.	20.00	1000	63-0228
131	10-1-1899	RIVERSIDE IRRIGATION DISTRICT	219.10	10955	63-0251
132	3-23-1900	NEW YORK CANAL CO.	10.00	500	63-0369
133	5-17-1900	CANYON DITCH CO.	70.00	3500	63-0229
134	6-1-1901	RIVERSIDE IRRIGATION DISTRICT	5.54	277	63-0252
135	10-25-1901	CANYON DITCH CO.	56.34	2817	63-0225
136	4-1-1904	PIONEER IRRIGATION DISTRICT			

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED			TOTAL SEC. FT.
					STEWART DECREE	INTERVENORS STEWART DECREE	BRYAN DECREE	INCHES
AIKEN			63	6-1-1877	5.20			260
			73-A	4-1-1890	.10			5
								5.30
ANDREWS DITCH			4	6-1-1864	3.30			165
			29	6-1-1865	6.00			300
			44	6-1-1869	8.50			425
			51	5-1-1870	1.30			65
			104	6-1-1888	.90			45
			121	6-1-1891	3.50			175
								23.50
BALLENTYNE			98	6-1-1888	4.00			200
			99	6-1-1888	1.30			65
			100	6-1-1888	1.40			70
			101	6-1-1888	1.46			73
			102	6-1-1888	1.20			60
			103	6-1-1888	1.40			70
			123	6-1-1891	.80			40
			66-A	4-1-1878		.80		40
			66-C	4-1-1878		1.40		70
			66-D	4-1-1878		.80		40
			85-D	5-1-1883		.8256		41.28
			136	5-1-1906		.392		19.6
	57		65	6-1-1877	.60			30
	64*		102	6-1-1888	.20*			10"
	140*		95-D	5-1-1883		.07*		3.5*
	151		124-A	5-1-1893		.135		6.75
	161*		103	6-1-1888	.65*			32.5*
	174*		103	6-1-1888	.24*			12"
								15.35
BAXTER			73-B	1880		3.20		150
	127		20	6-1-1865	.90			40
								4.00
BOISE CITY			33	6-1-1866	38.06			1903
	370*		33	6-1-1866	1.124*			56.2*
	373*		33	6-1-1866	.374*			18.7*
	1048*		33	6-1-1866	.0875*			4.375*
	1059*		33	6-1-1866	.10*			5"
								36.37*

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 2.

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED			TOTAL SEC. FT.
					STEWART DECREE	INTERVENORS STEWART DECREE	BRYAN DECREE	INCHES
BOISE VALLEY			15	6-1-1865	54.58			2729
LICENSED RIGHT #15242		243		7-19-1921			(1.20)	60
								55.78
BOONE DITCH			28	6-1-1865	7.00			350
			47	6-1-1869	3.50			175
			59	6-1-1874	2.20			110
								12.70
BOWMAN & SWISHER	50		19	6-1-1865	2.88			144
	51		20	6-1-1865	6.40			320
	127*		20	6-1-1865	.80*			40*
	224		89	11-9-1883	.20			45
			96	10-1-1887	.70			9.38
BUBB (SOUTH BOISE MUTUAL)			107	5-1-1889	.06			3
			108	5-1-1889	.02			1
			109	5-1-1889	2.40			120
			110	5-1-1889	6.00			300
			111	5-1-1889	2.94			147
			112	5-1-1889	.05			2.5
			113	5-1-1889	.10			5
			114	5-1-1889	.03			1.5
			8-8	4-1-1865		1.80		90
			8-D	4-1-1865		.50		25
			50-A	1870		1.00		50
			106-A	3-1-1889		.84		42
				4-1-1905			5.40	270
								21.14

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED			TOTAL SEC. FT.
					STEWART DECREE	INTERVENORS STEWART DECREE	BRYAN DECREE	INCHES
CALDWELL HIGH LINE			34	6-1-1866	15.40			770
			46	6-1-1869	37.20			1860
			77	10-29-1880	27.60			1380
	29*		46	6-1-1869	1.00*			50*
								79.20
CAMPBELL (CANYON DITCH CO.)			132	5-17-1900	10.00			500
			134	10-25-1901	5.54			277
		38	96	10-1-1887	12.10			605
		105	9	6-1-1865	.50			25
								28.14
CANYON COUNTY			35	6-1-1867	75.20			3790
			35-A	6-1-1867		1.76		88
			46	6-1-1869	1.00			50
	29		35	6-1-1867	.38*			19*
	36*		35	6-1-1867	1.11*			55.5*
	54*		31	6-1-1866	2.60			130
	59		35	6-1-1867	.50			25
	75		35	6-1-1867	.20			10
	147							80.37
			48	6-1-1870	2.60			130
CONWAY & HAMMING			64	6-1-1877	.90			45
			118	6-1-1891	2.20			110
								5.70
DAVIS (LITTLE DAVIS)			94	6-1-1886	13.40			670
			119	6-1-1891	.54			27
								13.94
EUREKA NO. 1								1666
			13	6-1-1865	33.32			33.32

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED				TOTAL SEC. FT.
					STEWART DECREE	STEWART DECREE	BRYAN DECREE	INCHES	
EUREKA No. 2									
			89	11-9-1883	21.70			1085	
	47		96	10-1-1887	29.50			1475	
	62		96	10-1-1887	1.00			50	
	71		24	6-1-1865	.80			40	
	85		24	6-1-1865	.50			25	
		111*	96	10-1-1887	1.20*			60*	
	131*		89	11-9-1883	.70*			35*	
	159		24	6-1-1865	.10			5	
	175		88	6-1-1883	1.70			85	
	224*		89	11-9-1883	.20*			10*	
			96	10-1-1887	.70*			35*	
	225*		89	11-9-1883	.60*			30*	
	287*		89	11-9-1883	1.40*			70*	
	289*		89	11-9-1883	.50*			25*	50.00
FARMERS UNION									
			126	7-2-1894	110.00			5500	
		136	2	6-1-1864	20.00			1000	
	370	33		6-1-1866	1.124			56.2	
	373	33		6-1-1866	.374			18.7	
	374	65		6-1-1877	.40			20	
	375	65		6-1-1877	.20			10	
	384	65		6-1-1877	.40			20	
	385	65		6-1-1877	.266			13.3	
	386	65		6-1-1877	.40			20	
	387	65		6-1-1877	.40			20	
	391	3)		6-1-1864					
		54)		6-1-1871	.15			7.5	
	393	3)		6-1-1864					
		54)		6-1-1871	.288			14.4	
		120)		6-1-1891					
	395	65		6-1-1877	.50			25	
	430*	65		6-1-1877	.25*			12.5*	
		65		6-1-1877	.80			40	
84			65	6-1-1877				50	
	512	1		6-1-1864	1.00			25	
	513	1		6-1-1864	.50			15	
	530	1		6-1-1864	.30				
				7-2-1894			54.46	2723	
				6-1-1866	.0875			4.375	
	1048	33		6-1-1866	.10			5	
	1059	33		6-1-1866	1.80			90	
	1855	32		6-1-1866					193.2995
GRAHAM & GILBERT									
			12	6-1-1865	4.40			220	4.40

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED				TOTAL SEC. FT.
					STEWART DECREE	STEWART DECREE	BRYAN DECREE	INCHES	
HAAS DITCH	176		39	6-1-1868	8.54			427	17.34
			70	6-1-1878	8.80			440	
HART & DAVIS	38*) 39*)		6	6-1-1864	3.30			165	9.96
			57	6-1-1872	4.40			220	
			58	6-1-1872	3.30			165	
			57	6-1-1872	.54*			27*	
			58	6-1-1872	.50*			25*	
ISLAND HIGH LINE			71-A	4-1-1879		3.00		150	20.00
			137-A	4-1-1910		7.00		350	
			139	4-1-1915		10.00		500	
LEMP DITCH			8-C	1865		6.00		300	6.00
LITTLE PIONEER	1575		49	6-1-1870	25.72			1286	26.32
			31-C	6-1-1866		1.10		55	
LOWER CENTER POINT	50* 51* 131 245 287		19	6-1-1865	2.83			144	19.60
			20	6-1-1865	6.40			320	
			21	6-1-1865	2.90			145	
			22	6-1-1865	3.20			160	
			38	6-1-1868	3.20			160	
			43	6-1-1869	3.60			180	
			73	6-1-1879	4.00			200	
			19	6-1-1865	2.88*			144*	
			20	6-1-1865	6.40*			320*	
			89	11-9-1883	.70			35	
			89	11-9-1883	.60			30	
			89	11-9-1883	1.40			70	

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED			TOTAL SEC. FT.
					INTERVENORS STEWART DECREE	STEWART DECREE	BRYAN DECREE	
MACE CATLIN			5	6-1-1864	2.86			
			52	6-1-1871	7.86			143
	179*		51	6-1-1864	.168*			393
			52	6-1-1871	.072*			8.4
			138	6-14-1912		.44		3.6
								22
								10.92
MACE & MACE			137	5-1-1909		1.76		
								88
								1.76
MAMMON			41	6-1-1869	1.80			
			68	6-1-1878	4.20			90
			69	5-1-1878	3.36			210
			70	5-1-1878	8.80			168
	176*		70	6-1-1878	8.80*			440
								440*
								9.36
MIDDLETON MILL			3	6-1-1864	12.80			
			40	6-1-1868	1.40			640
			54	6-1-1871	33.70			70
			120	6-1-1891	17.00			1685
	54		35	6-1-1867	1.11			850
	75*		35	6-1-1867	.50*			55.5
	147*		35	6-1-1867	.20*			25*
			300*	3)	6-1-1864			10*
				54)	6-1-1871	.35*		
			120)	6-1-1891				17.5*
			301*	3)	6-1-1864			
				54)	6-1-1871	1.54*		77*
			120)	6-1-1891				
			347*	3	6-1-1864	.14*		7*
			349*	3	6-1-1864	.14*		7*
			350*	3	6-1-1864	.14*		7*
			391*	3)	6-1-1864			
				54)	6-1-1871	.15*		7.5*
			393*	3)	6-1-1864	.288*		
				54)	6-1-1871			14.4*
			120)	6-1-1891				
			754	30	5-1-1866	.40		20
			123-A	5-15-1893		1.60		80
								64.51

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY		AMOUNT DECREED				TOTAL SEC. FT.
			NO.	DATE	STEWART DECREE	INTERVENORS		INCHES	
						STEWART DECREE	BRYAN DECREE		
MIDDLETON IRRIGATION									
	36		65	6-1-1877	114.08			5704	
	57*		35	6-1-1867	.38			19	
	61		65	6-1-1877	.50*			30*	
	84*		31-B	6-1-1866		.60		30	
	126		65	6-1-1877	.80*			40*	
			31-A	6-1-1866		2.30		115	
	357*		65	6-1-1877	.20*			10	
	374*		65	6-1-1877	.40*			20*	
	375*		65	6-1-1877	.20*			10*	
	384*		65	6-1-1877	.40*			20*	
	385*		65	6-1-1877	.266*			13.3*	
	386*		65	6-1-1877	.40*			20*	
	387*		65	6-1-1877	.40*			20*	
	392*		65	6-1-1877	.40*			20*	
	395*		65	6-1-1877	.50*			25*	112.794
MISCELLANEOUS									
R. B. BETTY (DRAIN)		1009	73-A	4-1-1880		.10		5	.10
CRAWFORTH PUMP ✓	227		114-A	5-1-1889		1.60		80	1.60
BOISE RIVER (BARBER PUMP)			80	6-1-1882	1.60			80	1.60
DRAINAGE DISTRICT #4 (Probably from Sherman Drain)			85-A	6-1-1882		1.76		88 ⁸⁰	0.88
(MARSTERS DITCH) 83*			85-A	6-1-1882		.72*		35*	1.04
MANVILLE-LEONARD ✓			32	6-1-1866	3.50			175	
(BOISE CITY PARKS)		1855*	32	6-1-1866	1.80*			90*	1.70
MCCURRY PUMP (LICENSED RIGHT #33487)				2-22-1967	(.56)			28	.56
MEEVES ✓			53	6-1-1871	1.80			50	1.80
SURPRISE VALLEY FARMS ✓		1011	30	5-1-1866	3.00			150	3.00

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY		AMOUNT DECREED				TOTAL SEC. FT.
			NO.	DATE	STEWART DECREE	INTERVENORS		INCHES	
						STEWART DECREE	BRYAN DECREE		
NEW DRY CREEK			72	6-1-1879	31.32			1566	
			93	6-1-1886	15.22			761	
			97	6-1-1888	7.86			393	
			129-A	4-1-1897		.54		27	
			73-A	4-1-1880		.54		27	
			74-A	6-1-1880		1.816		90.8	
			85-C	5-1-1883		.2232		11.16	
			85-E	5-1-1883		.385		19.25	
			124-A	5-1-1893		.825		41.25	
		300	3)	6-1-1864					
		300	54)	6-1-1871	.35			17.5	
		300	120)	6-1-1891					
		301	3)	6-1-1864					
		301	54)	6-1-1871	1.54			77	
		301	120)	6-1-1891					
			102	6-1-1888	.20			10	
		64	85-D	5-1-1883		.07		3.5	
		140	124-A	5-1-1893		.135*		6.75*	
		151*	103	6-1-1888	.65			32.5	
		161	103	6-1-1888	.24			12	
		174	713	30	5-1-1866	.54		27	
		1009*		73-A	4-1-1880		.10*	5*	62.0841
NEW UNION			14	6-1-1865	13.76			688	13.76

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHAPT NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	NO.	PRIORITY DATE	AMOUNT DECREED				TOTAL SEC. FT.
					STEWART DECREE	STEWART DECREE	INTERVENORS BRYAN DECREE	INCHES	
NEW YORK			131	3-23-1900	213.10			10955	
				3-23-1900				2343	
				12-14-1903			58.86	57729	
				6-16-1909			1354.53	46325	
		(790-111)	8	9-1-1864	20.00		926.50	1000	
			45	6-1-1869	.34			17	
		(790-111)	96	10-1-1887	1.20			60	
		466	106	8-20-1888	8.90			445	
		701	30	5-1-1866	2.00			100	
		823	30	5-1-1866	6.00			300	
		976	30	5-1-1866	1.50			75	
		1007	30	5-1-1866	1.00			50	
		1010	30	5-1-1866	2.00			100	
		1017	30	5-1-1866	.60			30	
		1074	30	5-1-1866	2.00			100	2604.56
PARMA DITCH			71	6-1-1878	4.40			220	
			74	6-1-1880	1.76			88	
			125	6-1-1894	1.76			88	
			77-A	6-1-1881		1.60		80	
			77-B	6-1-1881		.34		17	
			77-C	6-1-1881		.80		40	
			77-D	6-1-1881		1.30		65	
	257		114-B	5-1-1889		.80		40	12.76
PENITENTIARY	46		50	6-1-1870	2.24			112	2.24
PHYLISS			90	6-1-1884	53.10			2655	
			117	9-1-1890	200.00			10000	
			135	4-1-1904	56.34			2817	
				4-1-1905			306.56	15328	
				4-1-1908			54.50	2725	
		1038	30	5-1-1866	21.715			1086	692.21

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED		BRYAN DECREE	INCHES	TOTAL SEC. FT.
					STEWART DECREE	STEWART DECREE			
PIONEER DIXIE			8	9-1-1864	20.00			1000	
			45	6-1-1869	35.44			1772	
	36-A		96	10-1-1887	2.00			100	
	48		96	10-1-1887	4.20			210	
	62*		96	10-1-1887	1.00*			50*	
		(790-111*)	8	9-1-1864	20.00*			1000*	
			45	6-1-1869	.34*			17*	
		608	88	6-1-1883	1.00			50	
		644	88	6-1-1883	.70			35	
		660	88	6-1-1883	.60			30	
	35*		45	6-1-1869	2.00*			100*	
	148*		96	10-1-1887	3.00*			150*	
				7-3-1914			20.90	1045	58.50
RIDENBAUGH (NANPA & MERIDIAN)			67	5-1-1878	170.00			8500	
			106	8-20-1889	370.84			18542	
		392	65	6-1-1877	.40			20	
	152		47-A	4-1-1870		.30		40	
	153		127	5-1-1895	1.00			50	
	154		8-A	4-1-1865		.80		40	
		466*	106	8-20-1888	8.90*			445*	
		595	1	6-1-1864	.20			10	
		1711*	67	5-1-1878	.40*			20*	534.74
RIVERSIDE			88	6-1-1883	12.00			600	
			91	6-1-1884	20.00			1000	
			95	1-23-1887	4.00			200	
			124	5-1-1893	80.00			4000	
			130	10-1-1899	20.00			1000	
			133	6-1-1901	70.00			3500	
			77-E	4-15-1882		3.674		183.7	
			116-A	6-1-1890		.72		36	
			116-B	6-1-1890		.10		5	
			116-C	6-1-1890		.40		20	
				4-1-1910			63.78	3189	
				4-1-1914			17.70	885	
		608*	88*	6-1-1883	1.00*			50*	
		644*	88	6-1-1883	.70*			35*	
		660*	88	6-1-1883	.60*			30*	
	35		45	6-1-1869	2.00			100	
	175*		88	6-1-1883	1.70*			85*	290.37
ROEDEL DITCH (INDIAN CR.)			54-A	5-1-1875		3.20		160	3.20

*SUBTRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER NO.	PRIORITY NO.	DATE	AMOUNT DECREED				TOTAL INCHES SEC. FT.
					STEWART DECREE	INTERVENORS STEWART DECREE	BRYAN DECREE		
ROSSI MILL			16	6-1-1865	9.20				460
			18	6-1-1865	.80				40
									10.00
SEBREE (FARMERS CO-OP)			60	6-1-1875	10.00				500
			86	6-1-1883	20.00				1000
			105	7-1-1888	50.00				2500
			129	7-1-1896	83.50				4175
				4-1-1905					7722
			717	9	6-1-1865	.64	154.45		32
									318.59

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED				TOTAL SEC. FT.
					STEWART DECREE	STEWART DECREE	BRYAN DECREE	INTERVENORS INCHES	
SETTLERS			92	10-17-1884	99.06				
			122	6-1-1891	73.44			4953	
		347	3	6-1-1864	.14			3672	
		349	3	6-1-1864	.14			7	
		350	3	6-1-1864	.14			7	
		357	65	6-1-1877	.20			7	
		412	81	6-1-1882	.40			10	
	76		85-B	4-1-1883				20	
	83		85-A	6-1-1882		1.00		50	
		430	65	6-1-1877	.25	.72		36	
		595	1	6-1-1864	.20			12.5	
		654	30	5-1-1866	.50			10	
					1.00			25	
					.50			50	
		694	30	5-1-1866	.16			25	
					.12			8	
					.14			6	
					.26			7	
		702	30	5-1-1866	.60			13	
		712	30	5-1-1866	.20			30	
					.20			10	
					.50			10	
		720	30	5-1-1866	1.34			25	
		736	37	6-1-1868	1.00			67	
		737	30	5-1-1866	1.10			50	
		739	30	5-1-1866	.15			55	
		753	30	5-1-1866	.46			7.5	
		829	30	5-1-1866	.48			23	
		871	36	6-1-1868	.288			24	
		872	36	6-1-1868	.22			14.4	
		873	30	5-1-1866	.20			11	
		890	30	5-1-1866	.10			10	
		906	30	5-1-1866	.10			5	
		917	30	5-1-1866	.20			5	
		918	30	5-1-1866	.025			10	
		940	30	5-1-1866	.05			1.25	
		977	30	5-1-1866	.20			2.5	
		979	30	5-1-1866	.10			10	
		980	30	5-1-1866	.12			5	
		989	30	5-1-1866	.20			6	
		990	30	5-1-1866	.03			10	
		991	30	5-1-1866	.16			4	
		1711	67	5-1-1873	.40			8	
								20	184.843
								27	
SEVEN SUCKERS	381		57	6-1-1872	.54			25	
	391		58	6-1-1872	.50			8.4	
	179		51	6-1-1864	.168			3.5	1.23
			521	6-1-1871	.072				

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN P. OF D.	TRANSFER	PRIORITY NO.	DATE	AMOUNT DECREED				TOTAL SEC. FT.
					STEWART DECREE	INTERVENORS STEWART DECREE	BRYAN DECREE	INCHES	
SIEBENBERG			9	6-1-1865	13.42			671	
		105*	9	6-1-1865	.50*			25*	
		717*	9	6-1-1865	.64*			32*	12.28
THURMAN MILL			7	6-1-1864	3.30			165	
			10	6-1-1865	1.20			60	
			11	6-1-1865	.66			33	
			36	6-1-1868	14.10			705	
			37	6-1-1868	3.70			185	
			42	6-1-1869	1.60			80	
			55	6-1-1872	.70			35	
			56	6-1-1872	1.40			70	
			62	6-1-1876	.44			22	
			75	6-1-1880	2.40			120	
			76	10-20-1880	.90			45	
			78	6-1-1882	.90			45	
			79	6-1-1882	.60			30	
			81	6-1-1882	2.60			130	
			84	6-1-1882	1.50			75	
			87	6-1-1883	.90			45	
			128	7-1-1895	.66			33	
		412*	81	6-1-1882	.40*			20*	
		736*	37	6-1-1868	1.00*			50*	
		871*	36	6-1-1868	.288*			14.4*	
		872*	36	6-1-1868	.22*			11*	35.652
UPPER CENTER POINT			23	6-1-1865	3.20			160	
			24	6-1-1865	2.40			120	
			25	6-1-1865	3.94			197	
			26	6-1-1865	1.60			80	
			27	6-1-1865	1.58			79	
	71*		24	6-1-1865	.80*			40*	
	85*		24	6-1-1865	.50*			25*	
	148		96	10-1-1887	3.00			150	
	159*		24	6-1-1865	.10*			5*	
	289		89	11-9-1883	.50			25	14.82

*SUB TRACT

STEWART AND BRYAN DECREES GROUPED UNDER CANAL HEADINGS

CHART NO. 25

NAME OF CANAL	CHANGE IN	TRANSFER	P. OF D.	PRIORITY NO.	DATE	AMOUNT DECREED			TOTAL SEC. FT.
	STEWART DECREE					INTERVENORS STEWART DECREE	BRYAN DECREE		
WARM SPRINGS DITCH				61	6-1-1876	2.30			
				82	6-1-1882	.44			
				83	6-1-1882	.44			
				84	6-1-1882	1.36			
				85	6-1-1882	2.20			
				81	6-1-1882	.80			
				115	6-1-1889	.06			
				116	6-1-1889	1.20			
									8.80

TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DEGREE	75% OF DEGREE	50% OF DEGREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
1	FARMERS UNION	1	1.30	1.35	1.08	1.08	1334.0	1650.1
1	RIDENBAUGH	1	.20	.15	.12	1.20	1334.0	1650.2
1	SETTLERS	1	.20	.15	.12	1.32	1334.1	1650.2
2	*FARMERS UNION	1	20.00	20.00	20.00	21.32	1334.1	1650.2
3	MIDDLETON MILL	1	11.04	8.28	6.62	27.94	1335.7	1653.0
3	FARMERS UNION	1	.10	.08	.06	28.00	1335.7	1653.0
3	SETTLERS	1	.42	.32	.25	28.25	1335.8	1653.1
3	NEW DRY CREEK	1	1.25	.94	.75	29.00	1336.0	1653.4
4	ANDREWS	3	3.30	2.48	1.98	29.00	1336.0	1653.4
5	MACE-CATLIN	1	2.69	2.02	1.61	30.61	1336.4	1654.1
5	SEVEN SUCKERS	1	.17	.13	.10	30.71	1336.4	1654.1
6	HART-DAVIS	1	3.30	2.48	1.98	32.69	1336.9	1655.0
7	THURMAN MILL	1	3.30	2.48	1.98	34.67	1337.4	1655.8
8	NEW YORK	1	20.00	15.00	12.20	46.67	1340.4	1660.8
8A	RIDENBAUGH	1	.80	.60	.48	47.45	1340.5	1661.0
8B	BUBB	1	1.80	1.35	1.08	48.23	1340.8	1661.4
8C	LEMP	1	6.00	4.50	3.60	51.83	1341.7	1662.9
8D	BUBB	1	.50	.38	.30	52.13	1341.8	1663.1
9	SIEBENBERG	2	13.42	10.07	8.05	52.13	1341.8	1663.1
9	SEBREE	2	.64	.48	.38	52.13	1341.8	1663.1
9	CAMPBELL	2	.50	.38	.30	52.13	1341.8	1663.1
10	THURMAN MILL	1	1.20	.90	.72	52.85	1342.0	1663.4
11	THURMAN MILL	1	.66	.50	.40	53.25	1342.1	1663.5
12	GRAHAM-GILBERT	1	4.40	3.30	2.64	55.89	1342.7	1664.6
13	EUREKA #1	1	33.32	24.99	19.99	75.98	1347.7	1673.0
14	NEW UNION	1	13.76	10.32	8.27	84.15	1349.8	1676.4
15	BOISE VALLEY	1	54.58	40.94	32.75	116.90	1358.0	1690.0
16	ROSSI MILL	1	9.20	6.90	5.52	122.42	1359.5	1692.5
17	RIDENBAUGH & ROSSI (POWER)	1	265.80	265.80	265.80	122.42	1359.5	1692.5
18	ROSSI MILL	1	.80	.60	.48	122.90	1359.5	1692.5
19	BOWMAN-SWISHER	2	2.88	2.16	1.73	122.90	1359.5	1692.5
20	BOWMAN-SWISHER	2	5.60	4.20	3.36	122.90	1359.5	1692.5
20	BAXTER	3	.80	.50	.48	122.90	1359.5	1692.5
21	LOWER CENTER POINT	2	2.90	2.18	1.74	122.90	1359.5	1692.5
22	LOWER CENTER POINT	2	3.20	2.40	1.92	122.90	1359.5	1692.5
23	UPPER CENTER POINT	2	3.20	2.40	1.92	122.90	1359.5	1692.5
24	UPPER CENTER POINT	2	1.00	.75	.60	122.90	1359.5	1692.5
24	EUREKA #2	2	1.40	1.05	.84	122.90	1359.5	1692.5
25	UPPER CENTER POINT	2	3.94	2.96	2.36	122.90	1359.5	1692.5
26	UPPER CENTER POINT	2	1.60	1.20	.96	122.90	1359.5	1692.5
27	UPPER CENTER POINT	2	1.58	1.19	.95	122.90	1359.5	1692.5
28	BOONE	3	7.00	5.25	4.20	122.90	1359.5	1692.5
29	ANDREWS	3	6.00	4.50	3.60	122.90	1359.5	1692.5
30	*MIDDLETON MILL	1	.40	.40	.40	123.30	1359.5	1692.5
30	*MISCELLANEOUS	1	3.00	3.00	3.00	126.20	1359.5	1692.5
30	*NEW DRY CREEK	1	.54	.54	.54	126.84	1359.5	1692.5

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TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DECREE	75% OF DECREE	60% OF DECREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
30	*NEW YORK	1	15.10	15.10	15.10	141.94	1359.5	1692.5
30	*PHYLIS	1	21.72	21.72	21.72	163.66	1359.5	1692.5
30	*SETTLERS	1	9.25	9.25	9.25	172.91	1359.5	1692.5
31	CANYON COUNTY	1	2.60	1.95	1.56	174.47	1359.5	1692.5
31A	MIDDLETON IRRIGATION	1	2.30	1.73	1.38	175.85	1360.2	1693.2
31B	MIDDLETON IRRIGATION	1	.60	.45	.36	176.21	1360.3	1693.8
31C	LITTLE PIONEER	1	1.10	.83	.66	176.87	1360.5	1693.9
32	MISCELLANEOUS	1	1.70	1.28	1.02	177.89	1360.8	1694.2
32	FARMERS UNION	1	1.80	1.35	1.08	178.97	1361.0	1695.1
33	BOISE CITY CANAL	1	36.38	27.29	21.83	200.80	1366.4	1704.2
33	FARMERS UNION	1	1.68	1.26	1.01	201.81	1366.7	1704.6
34	CALDWELL HIGHLINE	1	15.40	11.55	9.24	211.05	1369.0	1708.4
35	CANYON COUNTY	1	75.01	56.26	45.01	256.06	1380.3	1727.2
35	MIDDLETON MILL	1	.41	.31	.25	256.31	1380.3	1727.3
35	MIDDLETON IRRIGATION	1	.38	.29	.23	256.54	1380.4	1727.4
35A	CANYON COUNTY	1	1.76	1.32	1.06	257.60	1380.6	1727.9
36	THURMAN MILL	1	13.59	10.19	8.15	265.75	1382.7	1731.2
36	SETTLERS	1	.51	.38	.31	266.06	1382.7	1731.3
37	THURMAN MILL	1	2.70	2.03	1.62	267.68	1382.2	1732.0
37	SETTLERS	1	1.00	.75	.60	268.28	1383.3	1732.3
38	LOWER CENTER POINT	2	3.20	2.40	1.92	268.28	1383.3	1732.3
39	HAAS	3	8.54	6.41	5.12	268.28	1383.3	1732.3
40	MIDDLETON MILL	1	1.40	1.05	.84	269.12	1383.5	1732.6
41	MAHON	3	1.80	1.35	1.08	269.12	1383.5	1732.6
42	THURMAN MILL	1	1.60	1.20	.96	270.08	1383.8	1733.0
43	LOWER CENTER POINT	2	3.60	2.70	2.16	270.08	1383.8	1733.0
44	ANDREWS	3	8.50	6.38	5.10	270.08	1383.8	1733.0
45	PIONEER DIXIE	2	33.10	24.83	19.86	270.08	1383.8	1733.0
45	NEW YORK	1	.34	.26	.20	270.28	1383.8	1733.1
45	RIVERSIDE	2	2.00	1.50	1.20	270.28	1383.8	1733.1
46	CALDWELL HIGH LINE	1	36.20	27.15	21.72	292.00	1389.2	1742.2
46	CANYON COUNTY	1	1.00	.75	.60	292.60	1389.4	1742.4
47	BOONE	3	3.50	2.63	2.10	292.60	1389.4	1742.4
47A	RIDENBAUGH	1	.80	.60	.48	293.08	1389.5	1742.6
48	CONWAY HAMING	1	2.60	1.95	1.56	294.64	1399.9	1743.3
49	LITTLE PIONEER	1	25.72	19.29	15.43	310.07	1393.8	1749.7
50	PENITENTIARY	1	2.24	1.68	1.34	311.41	1394.1	1750.2
50A	BUBB	1	1.00	.75	.60	312.01	1394.2	1750.5
51	ANDREWS	3	1.30	.98	.78	312.01	1394.2	1750.5
52	MACE-CATLIN	1	7.79	5.84	4.67	316.58	1395.4	1752.4
52	SEVEN SUCKERS	1	.07	.05	.04	316.72	1395.4	1752.5
53	MEEVES	1	1.80	1.35	1.08	317.80	1395.7	1752.9
54	MIDDLETON MILL	1	32.43	24.32	19.46	337.26	1400.5	1761.0
54	FARMERS UNION	1	.26	.20	.16	337.42	1400.6	1761.1
54	NEW DRY CREEK	1	1.01	.76	.61	338.03	1400.7	1761.3
55	THURMAN MILL	1	.70	.53	.42	338.45	1400.8	1761.5

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TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DECREE	75% OF DECREE	60% OF DECREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
56	THURMAN MILL	1	1.40	1.05	.84	339.29	1401.1	1761.9
57	HART DAVIS	1	3.86	2.90	2.32	341.61	1401.6	1762.8
57	SEVEN SUCKERS	1	.54	.41	.32	341.93	1401.7	1763.0
58	HART DAVIS	1	2.80	2.10	1.68	343.61	1402.1	1763.7
58	SEVEN SUCKERS	1	.50	.38	.30	343.91	1402.2	1763.8
59	BOONE	3	2.20	1.65	1.32	343.91	1402.2	1763.8
59A	ROEDEL	2	3.20	2.40	1.92	343.91	1402.2	1763.8
60	SEBREE	2	10.00	7.50	6.00	343.91	1402.2	1763.8
61	WARM SPRINGS	1	2.30	1.73	1.38	345.29	1402.6	1764.4
62	THURMAN MILL	1	.44	.33	.26	345.55	1402.6	1764.5
63	AIKEN	1	5.20	3.90	3.12	348.67	1403.4	1765.3
64	CONWAY-HAMMING	1	.90	.68	.54	349.21	1403.5	1766.0
65	MIDDLETON IRRIGATION	1	109.51	82.13	65.71	414.92	1420.3	1793.4
65	BALLENTYNE	1	.60	.45	.36	415.28	1420.1	1793.5
65	FARMERS UNION	1	3.12	2.34	1.87	417.15	1420.5	1794.3
65	RIDENBAUGH	1	.40	.30	.24	417.39	1420.6	1794.4
65	SETTLERS	1	.45	.34	.27	417.66	1420.6	1794.5
66	PARRAULT & JOHNSON (POWER)	1	200.00	200.00	200.00	417.66	1420.6	1794.5
66A	BALLENTYNE	1	.80	.60	.48	418.14	1420.8	1794.7
66C	BALLENTYNE	1	1.40	1.05	.84	418.38	1421.0	1795.1
66D	BALLENTYNE	1	.80	.60	.48	419.46	1421.1	1795.3
67	RIDENBAUGH	1	169.60	127.20	101.76	521.22	1446.5	1837.7
67	SETTLERS	1	.40	.30	.24	521.46	1446.6	1837.8
68	MAMMON	3	4.20	3.15	2.52	521.46	1446.6	1837.8
69	MAMMON	3	3.36	2.52	2.02	521.46	1446.6	1837.8
70	HAAS	3	8.80	6.60	5.28	521.46	1446.6	1837.8
71	PARMA	3	4.40	3.30	2.64	521.46	1446.6	1837.8
71A	ISLAND HIGH LINE	3	3.00	2.25	1.80	521.46	1446.6	1837.8
72	NEW DRY CREEK	1	31.32	23.49	18.79	540.25	1451.3	1845.6
73	LOWER CENTER POINT	2	4.00	3.00	2.40	540.25	1451.3	1845.6
73A	NEW DRY CREEK	1	.44	.33	.26	540.51	1451.4	1845.7
73A	AIKEN	1	.10	.08	.06	540.57	1451.4	1845.7
73B	BAXTER	3	3.20	2.40	1.92	540.57	1451.4	1845.7
74	PARMA	3	1.76	1.32	1.06	540.57	1451.4	1845.7
74A	NEW DRY CREEK	1	1.82	1.37	1.09	541.66	1451.6	1846.2
75	THURMAN MILL	1	2.40	1.80	1.44	543.10	1452.0	1846.8
76	THURMAN MILL	1	.90	.68	.54	543.64	1452.1	1847.0
77	CALDWELL HIGH LINE	1	27.60	20.70	16.56	560.20	1456.3	1853.9
77A	PARMA	3	1.60	1.20	.96	560.20	1456.3	1853.9
77B	PARMA	3	.34	.26	.20	560.20	1456.3	1853.9
77C	PARMA	3	.80	.60	.48	560.20	1456.3	1853.9
77D	PARMA	3	1.30	.98	.78	560.20	1456.3	1853.9
77E	RIVERSIDE	2	3.67	2.75	2.20	560.20	1456.3	1853.9
78	THURMAN MILL	1	.30	.23	.18	560.74	1456.4	1854.1
79	THURMAN MILL	1	.60	.45	.36	561.10	1456.5	1854.3
80	MISCELLANEOUS	1	1.60	1.20	.96	562.06	1456.7	1854.7

TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DECREE	75% OF DECREE	60% OF DECREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
81	THURMAN MILL	1						
61	SETTLERS	1	2.20	1.65	1.32	563.33	1457.1	1855.2
81	WARM SPRINGS	1	.40	.30	.24	563.62	1457.1	1855.3
82	WARM SPRINGS	1	.80	.60	.48	564.10	1457.3	1855.5
83	WARM SPRINGS	1	.44	.33	.26	564.36	1457.3	1855.6
84	THURMAN MILL	1	.44	.33	.26	564.62	1457.4	1855.7
84	WARM SPRINGS	1	1.50	1.13	.90	565.32	1457.6	1856.1
85	WARM SPRINGS	1	1.36	1.02	.82	566.34	1457.8	1856.5
85A	MISCELLANECUS	1	2.20	1.55	1.32	567.66	1458.1	1857.0
85A	SETTLERS	1	1.04	.78	.62	568.28	1458.3	1857.3
85B	SETTLERS	1	.72	.54	.43	568.71	1458.4	1857.4
85C	NEW DRY CREEK	1	1.00	.75	.60	569.31	1458.6	1857.7
85D	BALLENTYNE	1	.22	.17	.13	569.44	1458.6	1857.8
85D	NEW DRY CREEK	1	.76	.57	.46	569.90	1458.7	1857.9
85E	NEW DRY CREEK	1	.07	.05	.04	569.94	1458.7	1858.0
86	SEBREE	1	.39	.29	.23	570.17	1458.7	1858.1
87	THURMAN MILL	2	20.00	15.00	12.00	570.17	1458.8	1858.1
88	RIVERSIDE	1	.90	.68	.54	570.71	1458.9	1858.3
88	EUREKA #2	2	8.00	6.00	4.80	570.71	1458.9	1858.3
88	PIONEER DIXIE	2	1.70	1.28	1.02	570.71	1458.9	1858.3
89	EUREKA #2	2	2.30	1.73	1.38	570.71	1458.9	1858.3
89	BOWMAN-SWISHER	2	18.30	13.73	10.98	570.71	1458.9	1858.3
89	UPPER CENTER POINT	2	.20	.15	.12	570.71	1458.9	1858.3
89	LOWER CENTER POINT	2	.50	.38	.30	570.71	1458.9	1858.3
90	PHYLISS	2	2.70	2.03	1.62	570.71	1458.9	1858.3
91	RIVERSIDE	1	53.10	39.83	31.86	602.37	1466.9	1871.6
92	SETTLERS	2	20.00	15.00	12.00	602.37	1466.9	1871.6
93	NEW DRY CREEK	1	99.06	74.30	59.44	662.01	1481.7	1896.3
94	DAVIS	1	15.22	11.42	9.13	671.14	1484.0	1900.1
95	RIVERSIDE	1	13.40	10.05	8.04	679.18	1486.0	1903.5
96	RIVERSIDE	2	4.00	3.00	2.40	679.18	1486.0	1903.5
96	BOWMAN-SWISHER	2	.70	.53	.42	679.18	1486.0	1903.5
96	CAMPBELL	2	12.10	9.08	7.26	679.18	1486.0	1903.5
96	EUREKA #2	2	28.60	21.45	17.16	679.18	1486.0	1903.5
96	NEW YORK	1	1.20	.90	.72	679.90	1486.2	1903.8
96	PIONEER DIXIE	2	2.20	1.65	1.32	679.90	1486.2	1903.8
96	UPPER CENTER POINT	2	3.00	2.25	1.80	679.90	1486.2	1903.8
97	NEW DRY CREEK	1	7.86	5.90	4.72	684.62	1487.4	1905.7
98	BALLENTYNE	1	4.00	3.00	2.40	687.02	1488.0	1906.7
99	BALLENTYNE	1	1.30	.98	.78	687.80	1488.2	1907.1
100	BALLENTYNE	1	1.40	1.05	.84	688.64	1488.4	1907.4
101	BALLENTYNE	1	1.46	1.10	.88	689.52	1488.6	1907.8
102	BALLENTYNE	1	1.00	.75	.60	690.12	1488.8	1908.0
102	NEW DRY CREEK	1	.20	.15	.12	690.24	1488.8	1908.1
103	BALLENTYNE	1	.51	.38	.31	690.55	1488.9	1908.2
103	NEW DRY CREEK	1	.39	.67	.53	691.08	1489.0	1908.4
104	ANDREWS	3	.90	.68	.54	691.08	1489.0	1908.4
105	SEBREE	2	50.00	37.50	30.00	391.08	1489.0	1908.4
106	RIDENBAUGH	1	361.34	271.46	217.16	908.24	1543.3	1998.3
106	NEW YORK	1	8.90	6.68	5.34	913.38	1544.6	2001.2

TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DECREE	75% OF DECREE	60% OF DECREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
106A	BUBB	1	.84	.63	.50	914.03	1544.7	2001.3
107	BUBB	1	.06	.05	.04	914.12	1544.8	2001.4
108	BUBB	1	.02	.02	.01	914.13	1544.8	2001.4
109	BUBB	1	2.40	1.80	1.44	915.57	1545.1	2002.0
110	BUBB	1	6.00	4.50	3.60	919.17	1546.0	2003.5
111	BUBB	1	2.94	2.21	1.76	920.93	1546.5	2004.2
112	BUBB	1	.05	.04	.03	920.96	1546.5	2004.2
113	BUBB	1	.10	.08	.06	921.02	1546.5	2004.2
114	BUBB	1	.03	.02	.02	921.04	1546.5	2004.2
114A	MISCELLANEOUS	3	1.60	1.20	.96	921.04	1546.5	2004.2
114B	PARMA	3	.80	.60	.48	921.04	1546.5	2004.2
115	WARM SPRINGS	1	.06	.05	.04	921.04	1546.5	2004.3
116	WARM SPRINGS	1	1.20	.90	.72	921.80	1546.7	2004.6
116A	RIVERSIDE	2	.72	.54	.43	921.80	1546.7	2004.6
116B	RIVERSIDE	2	.10	.08	.06	921.80	1546.7	2004.6
116C	RIVERSIDE	2	.40	.30	.24	921.80	1546.7	2004.6
117	PHYLISS	1	200.00	150.00	120.00	1041.80	1576.7	2054.6
118	CONWAY-HAMMING	1	2.20	1.65	1.32	1043.12	1577.0	2055.1
119	DAVIS	1	.54	.41	.32	1043.44	1577.1	2055.2
120	MIDDLETON MILL	1	16.44	12.33	9.86	1053.30	1579.6	2059.4
120	FARMERS UNION	1	.08	.06	.05	1053.35	1579.6	2059.4
120	NEW DRY CREEK	1	.48	.36	.29	1053.64	1579.6	2059.5
121	ANDREWS	3	3.50	2.63	2.10	1053.64	1579.6	2059.5
122	SETTLERS	1	73.44	55.08	44.06	1097.70	1590.7	2077.9
123	BALLENTYNE	1	.80	.60	.48	1098.18	1590.8	2078.1
123A	MIDDLETON MILL	1	1.60	1.20	.96	1099.14	1591.0	2078.5
124	RIVERSIDE	3	80.00	60.00	48.00	1099.14	1591.0	2078.5
124A	NEW DRY CREEK	1	.69	.52	.41	1099.55	1591.1	2078.6
124A	BALLENTYNE	1	.14	.11	.08	1099.63	1591.1	2078.7
125	PARMA	3	1.76	1.32	1.06	1099.63	1591.1	2078.7
126	FARMERS UNION	1	110.00	82.50	66.00	1165.63	1607.6	2106.2
127	RIDENBAUGH	1	1.00	.75	.60	1166.23	1607.8	2106.4
128	THURMAN MILL	1	.66	.50	.40	1166.63	1607.9	2106.6
129	SEBREE	2	83.50	62.63	50.10	1166.63	1607.9	2106.6
129A	NEW DRY CREEK	1	.54	.41	.32	1166.93	1608.0	2106.7
130	RIVERSIDE	2	20.00	15.00	12.00	1166.95	1608.0	2106.7
131	NEW YORK	1	219.10	164.33	131.46	1298.41	1640.8	2161.5
132	CAMPBELL	2	10.00	7.50	6.00	1298.41	1640.8	2161.5
133	RIVERSIDE	2	70.00	52.50	42.00	1298.41	1640.8	2161.5
134	CAMPBELL	2	5.54	4.16	3.32	1298.41	1640.8	2161.5
135	PHYLISS	1	56.34	42.26	33.80	1332.21	1649.3	2175.6
136	BALLENTYNE	1	.39	.29	.23	1332.44	1649.3	2175.7
137	MACE-MACE	1	1.76	1.32	1.06	1333.50	1649.6	2176.1
137A	ISLAND HIGH LINE	3	7.00	5.25	4.20	1333.50	1649.6	2176.1
138	MACE-CATLIN	1	.44	.33	.26	1333.76	1649.7	2176.2
139	ISLAND HIGH LINE	3	10.03	7.50	6.00	1333.76	1649.7	2176.2

TABLE SHOWING PRESENT DIVERSION OF STEWART DECREE
RIGHTS AND FLOW NECESSARY IN SECOND FEET TO FILL
TO 60% - 75% AND 100%

CHART NO. 26

NO.	CANAL	RIVER SECTION	100% OF DEGREE	75% OF DEGREE	60% OF DEGREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%
106A	BUEB	1	.84	.63	.50	914.03	1544.7	2001.3
107	BUBB	1	.06	.05	.04	914.12	1544.8	2001.4
108	BUBB	1	.02	.02	.01	914.13	1544.8	2001.4
109	BUBB	1	2.40	1.80	1.44	915.57	1545.1	2002.0
110	BUBB	1	6.00	4.50	3.60	919.17	1546.0	2003.5
111	BUBB	1	2.94	2.21	1.76	920.93	1546.5	2004.2
112	BUBB	1	.05	.04	.03	920.96	1546.5	2004.2
113	BUBB	1	.10	.08	.06	921.02	1546.5	2004.2
114	BUBB	1	.03	.02	.02	921.04	1546.5	2004.2
114A	MISCELLANEOUS	3	1.60	1.20	.96	921.04	1546.5	2004.2
114B	PARMA	3	.80	.60	.48	921.04	1546.5	2004.2
115	WARM SPRINGS	1	.06	.05	.04	921.04	1546.5	2004.3
116	WARM SPRINGS	1	1.20	.90	.72	921.80	1546.7	2004.6
116A	RIVERSIDE	2	.72	.54	.43	921.80	1546.7	2004.6
116B	RIVERSIDE	2	.10	.08	.06	921.80	1546.7	2004.6
116C	RIVERSIDE	2	.40	.30	.24	921.80	1546.7	2004.6
117	PHYLISS	1	200.00	150.00	120.00	1041.80	1576.7	2054.6
118	CONWAY-HAMMING	1	2.20	1.65	1.32	1043.12	1577.0	2055.1
119	DAVIS	1	.54	.41	.32	1043.44	1577.1	2055.2
120	MIDDLETON MILL	1	16.44	12.33	9.86	1053.30	1579.6	2059.4
120	FARMERS UNION	1	.08	.06	.05	1053.35	1579.6	2059.4
120	NEW DRY CREEK	1	.48	.36	.29	1053.64	1579.6	2059.5
121	ANDREWS	3	3.50	2.63	2.10	1053.64	1579.6	2059.5
122	SETTLERS	1	73.44	55.08	44.06	1097.70	1590.7	2077.9
123	BALLENTYNE	1	.80	.60	.48	1098.18	1590.8	2078.1
123A	MIDDLETON MILL	1	1.60	1.20	.96	1099.14	1591.0	2078.5
124	RIVERSIDE	3	80.00	60.00	48.00	1099.14	1591.0	2078.5
124A	NEW DRY CREEK	1	.69	.52	.41	1099.55	1591.1	2078.6
124A	BALLENTYNE	1	.14	.11	.08	1099.63	1591.1	2078.7
125	PARMA	3	1.76	1.32	1.06	1099.63	1591.1	2078.7
126	FARMERS UNION	1	110.00	82.50	66.00	1165.63	1607.6	2106.2
127	RIDENBAUGH	1	1.00	.75	.60	1166.23	1607.8	2106.4
128	THURMAN MILL	1	.66	.50	.40	1166.63	1607.9	2106.6
129	SEBREE	2	83.50	62.63	50.10	1166.63	1607.9	2106.6
129A	NEW DRY CREEK	1	.54	.41	.32	1166.95	1608.0	2106.7
130	RIVERSIDE	2	20.00	15.00	12.00	1166.95	1608.0	2106.7
131	NEW YORK	1	219.10	164.33	131.46	1298.41	1640.8	2161.5
132	CAMPBELL	2	10.00	7.50	6.00	1298.41	1640.8	2161.5
133	RIVERSIDE	2	70.00	52.50	42.00	1298.41	1640.8	2161.5
134	CAMPBELL	2	5.54	4.16	3.32	1298.41	1640.8	2161.5
135	PHYLISS	1	56.34	42.26	33.80	1332.21	1649.3	2175.6
136	BALLENTYNE	1	.39	.29	.23	1332.44	1649.3	2175.7
137	MACE-MACE	1	1.76	1.32	1.06	1333.50	1649.6	2176.1
137A	ISLAND HIGH LINE	3	7.00	5.25	4.20	1333.50	1649.6	2176.1
138	MACE-CATLYV	1	.44	.33	.26	1333.76	1649.7	2176.2
139	ISLAND HIGH LINE	3	10.00	7.50	6.00	1333.76	1649.7	2176.2

TABLE SHOWING DECREED RIGHTS (BRYAN DECREE) & FLOW IN SECOND FEET
AN APPROXIMATE AMOUNT
NECESSARY AT DIVERSION DAM TO FILL SAME

CHART NO. 27

PRIORITY DATE	NAME	100% OF DECREE	75% OF DECREE	60% OF DECREE	FLOW TO FILL 60%	FLOW TO FILL 75%	FLOW TO FILL 100%	DEPT. OF WATER ADMINISTRATION
7-2-1894	FARMERS UNION	54.46	40.85	32.68	2306	4071	4523	63-0297
3-23-1900	NEW YORK IRRIGATION DIST. BOISE KUMA IRRIGATION DIST.	58.86	44.15	35.32	2341	4079	4538	63-0372
12-14-1903	UNITED STATES OF AMERICA	1354.58	1015.94	812.75	3154	4283	4877	63-0301
4-1-1905	PIONEER IRRIGATION DIST.	306.56	229.92	183.94	3338	4329	4953	63-0294
4-1-1905	FARMERS COOPERATIVE DITCH CO.	154.45	115.84	92.67	3430	4352	4992	63-0296
4-1-1905	SOUTH BOISE MUTUAL DITCH CO.	5.40	4.05	3.24	3434	4353	4993	63-0298
4-1-1908	PIONEER IRRIGATION DIST.	54.50	40.88	32.70	3466	4361	5007	63-0295
4-1-1909	UNITED STATES OF AMERICA	292.50	219.38	175.50				63-0373
6-16-1909	UNITED STATES OF AMERICA	634.00	475.50	380.40	4022	4500	5239	63-0302
6-16-1909	UNITED STATES OF AMERICA	1500.00	(POWER)					63-0367
4-1-1910	** RIVERSIDE IRRIGATION DIST.	63.78	47.84	38.27	4060	4509	5255	63-0299
4-1-1910	** MC MANUS & TEATER	3.36	2.52	2.02	4062	4510	5255	63-0304
1-13-1911	* UNITED STATES OF AMERICA	8000.00	(ARROWROCK STORAGE)				13255	63-0303
4-1-1914	** RIVERSIDE IRRIGATION DIST.	17.70	13.28	10.62			13273	63-0300
7-9-1914	** PIONEER DIXIE DITCH CO.	20.90	15.68	12.54			13294	63-0374
6-25-1938	UNITED STATES OF AMERICA	15000.00	(ARROWROCK STORAGE)					63-3613
12-9-1940	UNITED STATES OF AMERICA	493161.00	(ANDERSON STORAGE)					63-3614
4-12-1963	UNITED STATES OF AMERICA	307000.00	(LUCKY PEAK STORAGE)					63-3618

