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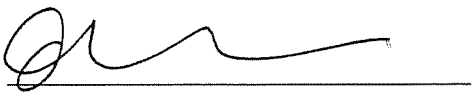

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EXHIBIT 1

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1944"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK
DISTRICT NO. 36
SNAKE RIVER, IDAHO
1944

discharged past Blackfoot, and canal diversions are decreasing during the latter part of the summer, the river gets so low that these canals cannot divert enough water to meet their requirements. The most satisfactory remedy for the difficulty would be more permanent and expensive diversion dams, feeder canals, etc. The cost of such construction, however, appears excessive to the water-users so they get along as best they can under existing conditions. The situation is worse in years when there is a large return flow below Lorenzo or when the lower valley canals do not need to draw Jackson Lake water and the river is kept as nearly dry as possible at Blackfoot.

Regulation began May 14 and by June 1 about 110,000 acre-ft. had been withdrawn from American Falls Reservoir. The reservoir refilled, however, and regulation was finally resumed again on July 5 and continued until September 19, with a little storage being used at Milner after the latter date. At the end of the season there were slightly over 1,000,000 acre-ft. or 36% of capacity remaining in the reservoirs compared to 61% a year before. Total storage diversions during 1944 amounted to 1,830,000 acre-ft., exclusive of water used from American Falls reservoir early in the season prior to the last refill of that reservoir.

At the year's end the Bureau of Reclamation had about completed its study of water supply and possible water savings in connection wit the proposed Palisade Reservoir Project. It was reported that some further drilling and surveys at the damsite would probably be done in 1945. The time for completion of the construction work at Palisade da as set out in the original water Permit, granted in 1939, was extended

The results of snow measurements by the Bureau of Reclamation on the Buffalo River watershed are shown in the following table. Buffalo River, which enters Snake River about six miles below Moran, drains a region of high elevation and is one of the last of the Snake River tributaries to reach its peak flow each year.

Table showing average snow depths and water content in inches on Buffalo River watershed

Year	Feb. 1-6		Mar. 23-29	
	Snow	Water	Snow	Water
1924	40	11.2		
1925	48	13.6		
1926	42	11.5		
1927	43	11.9		
1928	44	12.4		
1929	38	10.2		
1930	41	10.5		
1931	17	4.0		
1932	35	9.1		
1933	34	10.0		
1934	27	7.8		
1935	40	11.0		
1936	46	11.9	61	21.0
1937	33	8.4	45	13.8
1938	50	13.0	62	19.4
1939	45	12.2	52	17.3
1940	29	6.3	40	12.0
1941	36	9.3	46	14.6
1942	38	9.4	48	13.4
1943	67	22.7	74	29.7
1944	35	7.9	50	13.3
Average inches	39	10.7	53	17.2

The foregoing figures are the average of results obtained at Turpin Meadows, Four-Mile Meadows, Black Rock, and Twogwotee Pass.

The 1944 snow survey on the Buffalo River watershed showed 74% of average in February and 77% late in March. The snowfall was heavier o the Buffalo River watershed than it was above Jackson Lake.

Beginning with 1936 snow surveys have been made available by the Irrigation Division, Soil Conservation Service, Department of Agriculture in cooperation with the Forest Service, Bureau of Reclamation,

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EXHIBIT 2

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1953"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION

AND HYDROMETRIC WORK

DISTRICT NO. 36

SNAKE RIVER, IDAHO

1953

river near Roberts during the regulation period. This is equivalent to 1,726 acre-feet at Jackson Lake. For convenience in tabulation this amount was credited to the Owners Mutual Irrigation Company for diversion thru the Kennedy ditch and with other Jackson Lake storage rights used under that ditch was charged the regular schedule transmission losses on stored water from Jackson Lake.

The usual items covering Lake Walcott storage and gain from Neeley to Milner were credited to the Minidoka Project as shown on Plate 14.

The summarized details covering allocation and use of stored water during the year are shown in the following tabulation. The figures do not include 182,000 acre-feet used from American Falls and 13,700 acre-feet from Jackson Lake during May, which were canceled out due to those reservoirs filling again during June to full capacity.

Supply and Disposal of Stored Water, 1953
(acre-feet)

Supply

Jackson Lake	July 9	847,740
American Falls	July 1	1,701,000
Lake Walcott	July 1	92,860
Island Park	July 15	134,395
Henrys Lake	July 20	77,800
Grassy Lake	July 30	15,200
Sheridan Creek right		1,976*
Market Lake Springs		1,726*
Gain Neeley to Milner (Minidoka Project)		58,149*
Gain Neeley to Milner (unallocated)		1,284*
Total		2,932,130

*Special natural flow rights considered as storage for convenience in tabulation.

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EXHIBIT 3

Excepts, "1969 Annual History of the Minidoka Area Projects,"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

RG 115 RECORDS OF THE BUREAU OF RECLAMATION FY 92

Engineering & Research Center
Project Histories

Marias
through
Minidoka, 1969

Box No. 76 115-76A538 [illegible]

JRP032165

MINIDOKA AREA PROJECTS HISTORY

1960

JRP032166

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

1969
ANNUAL HISTORY
OF THE
MINIDOKA AREA PROJECTS

VOLUME 63

Burley, Idaho
Calendar Year 1969

JRP032167

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JRP032168

WATER SUPPLY

The year 1969 saw a large reservoir carryover diminish to about one-half of the previous year. A heavy snowpack in the watershed in January raised the runoff forecast to above normal, allowing river control to spill heavy for flood control. Your company officials protested this spilling prior to filling the reservoirs. Because of the below normal water content in the snowpack, Palisades only filled to 77% of its capacity. American Falls filled April 25, after ice restrictions were removed. Spaceholders were given refill conditions on July 10, after Jackson Lake filled.

Water was released from Milner on March 28, and turned into our canal system at Wilson Lake on April 1. Due to extremely dry conditions of the soil on the project, it was deemed advisable to deliver water at three-fourths inch per acre instead of the contract head of five-eighths inch per acre from the beginning. Fortunately, the river did hold up enough thru June to assure an ample water supply for the season. This past season was the best irrigation season on record for water delivery to stockholder headgates. This was made possible by using chemicals for mossing and the progressive action your Board of Directors has taken in past years to improve the canal system. On October 13, deliveries were curtailed to stockwater, and the gates were closed at Milner to allow concrete work on the main channel at Milner. All deliveries were stopped on December 1, to allow for maintenance work thruout the system. On this date the Company applied for the winter water saving program.

The total amount of water diverted from April 1 to December 1, was 1,270.510 acre feet, allowing 4.84 acre feet per acre to be delivered to stockholders headgates. The Company's carryover storage was 286,609 acre feet as compared with 503,165 acre feet for 1968.

The following table lists the reservoirs by capacity, contents January 1969, contents January 1970 and the Company's space in each reservoir in acre feet.

Reservoir	Capacity	1/1/69	1/1/70	N.S.C. Co.
Jackson Lake	847,000	622,000	606,000	312,007
Palisades	1,200,000	1,046,000	799,500	116,600
American Falls	1,700,000	1,183,000	1,051,000	438,360
Totals	3,747,000	2,851,000	2,456,500	866,967

MAINTENANCE

Repair work on the concrete lining of the main canal below Milner Dam was continued this year with 177 cubic yards of concrete placed in the floor. This section of canal continues to be the most expensive part of the canal system. It is important that it be maintained because of friction and water loss, in order to make deliveries downstream during the critical part of the summer.

JRP032204

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EXHIBIT 4

Excepts, "2006 Annual Report – Water District 1"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

2006 ANNUAL REPORT

WATER DISTRICT 1

SNAKE RIVER AND TRIBUTARIES

ABOVE MILNER, IDAHO

Lyle R. Swank, Watermaster
Idaho Department of Water Resources
Eastern Regional Office
900 North Skyline Drive, Suite A
Idaho Falls, Idaho 83402

SUMMARY

At the end of the 2005 water year on (September 30, 2005), the upper Snake River reservoir system contained 1,183,600 acre-feet of storage water. The total reservoir system storage was 684,000 acre-feet greater than the same day the previous year. This represented a system filled to 28.4 % of capacity. Although this was a big and positive improvement from some of the recent 2001-2004 extreme drought years, it was not a good carryover from a historical standpoint. The amount of water needed to completely fill the reservoirs would be an additional 2,988,000 acre-feet of storage. The actual lowest point of reservoir storage occurred nine days later, near the end of the 2005 irrigation year, on October 9th with 1,155,000 acre-feet of storage in the system. By midnight of October 31st (Milner time), which marked the end of the 2005 irrigation year and beginning of the 2006 irrigation year, an additional 126,000 acre-feet of storage had been added to the reservoirs to bring the total storage up to 1,281,000 acre-feet to start the 2006 season.

The early season snow accumulation during November and December was very good, resulting in a 108% April-July projected runoff for the Snake River near Heise on January 1st. January followed with another month of excellent snow accumulation, raising the projected Heise runoff to 117%. Projections continued above average through April 1st. The April 1st forecast projected water runoff near Heise to be 111%. Unfortunately, little additional snow fell during the months of April and May. Although some additional precipitation occurred, the lowest elevation SNOTEL sites lost snow with warm early spring conditions. By June 1st, the April – July projected forecast dropped to only 91%. The actual runoff for the April-July time period near Heise was measured as 92% of the 30-year long-term average.

Because of the high projected runoff, Palisades was operated for flood control, and was drawn down to 39% of its active capacity by mid-May. Much of this water released for flood control storage was lost from the upper Snake River system. As a result of the subsequent lower than expected runoff and warm spring conditions, 71,742 acre-feet of the space evacuated for flood control prior to mid-May failed to refill in Jackson and Palisades Reservoirs by the June 21st day of allocation. All other reservoirs received 100% storage allocations, as shown in Table 18 of this book.

There were more than 900,000 acre-feet of water which went past Milner from mid-April until May 16th when the spill past Milner Dam ceased. With water calls before the Idaho Department of Water Resources, District Courts and the Idaho Supreme Court, it would have been much better to recharge the water spilled past Milner, where feasible, than to have that much water leave the Water District 1 watershed.

The extreme drought of 2001-2005 had increased the awareness and importance of recharge to the Eastern Snake River Plain Aquifer. As a result of this evolving awareness, water was diverted by some canals from mid-April to mid-May 2006 under the Idaho Water Resource Boards 1980 priority water right, recharging the Snake River Plain Aquifer with water that otherwise would have spilled past Milner.

Rental Pool purchases totaled 170,408 acre-feet with the USBR renting 150,000 acre-feet according to the adopted rainbow chart of the rental pool rules and procedures. Flow augmentation rental was released past Milner between June 27th and August 20th. Southwest Irrigation District was the next largest renter, purchasing 12,500 acre-feet. The remaining 7,908 acre-feet was purchased by various entities. A complete listing of individual rental pool purchases can be found in Table 31.

Initial carryover towards the end of the storage-use season was 1,905,641 acre-feet. After late-season fill was added and rental supplies deducted, the October 31, 2006 reservoir system held 1,992,148 acre-feet of final carryover in its reservoir contents to start the 2007 irrigation year, as shown on Table 28 in this book.

WATER SUPPLY

The water supply available in any year is comprised of stored water carried over from the previous year, groundwater discharged (base flow), snowmelt runoff and summer precipitation.

Melting snow on the Snake River watershed generally provides the largest component of surface flows in Water District 1. The maximum snow accumulation at higher elevations is normally reached by the end of March. Runoff normally starts in late April and stream flows normally peak in early June. However, because snow pack varies significantly from year to year, average conditions are rarely actually observed. Figure 1 indicates the variation on April 1 snow pack for two snow courses, one on the Henrys Fork and the other on the Snake River. This figure indicates an above normal snow pack this year for both the Henrys Fork and the Snake River. Snow survey records for 21 upper Snake River snow courses for the period between 1997 - 2006 are included in the appendix.

The Soil Conservation Service of the U. S. Department of Agriculture, in cooperation with the Idaho Department of Water Resources, forecasts streamflows based upon current snow conditions and past streamflow and precipitation records. The April 1, 2006 forecasts predicted that runoff in the majority of the upper Snake River Basin would be above the historical average. Table 1 shows the average, forecast, and actual unregulated runoff at selected stations in the basin. Forecasts ranged from a high of 114 percent of normal for the Teton River near St. Anthony to 106 percent for the Henrys Fork near Ashton. Actual unregulated runoff ranged from 118 percent of normal for the Falls River near Ashton to 99 percent of normal for the Snake River near Heise.

Natural flow is that increment of streamflow that would be available at a specified stream location if the effects of reservoirs and diversions were removed. The watermaster must divide the natural flow among all decreed, licensed, and permitted water rights. For the purpose of computing and distributing available water supplies, the upper Snake River has been divided into 37 "reaches" as indicated by Figure 2. The water gained by each reach is computed as the sum of the reach outflow, the reach diversions, reservoir evaporation, and change in reservoir storage minus reach inflow.

Before reach gains can be computed, adjustments must be made to account for travel time. Table 2 lists the average travel time in days from each reach and from points of diversion within each reach to Milner Dam. The daily sum of the gains in all reaches (adjusted for travel times) above a specified gage location represents the natural flow supply at that location. When accumulated to Milner, they represent the total system natural flow.

Figure 3 compares total daily natural flow with total system diversions. The difference between the natural flow supply and the total system diversions represents storage that had to be released to meet the irrigation demand. Figure 3 indicates that demand exceeded natural flow on June 23, 2006. Storage was then used continually throughout the irrigation season, until September 26 when diversions were curtailed to the point that they were less than the natural flow.

The total natural flow in the system peaked at 50,526 cfs on May 26 (MT). The flow through Milner on this day was 260 cfs for a total of 1,993 acre-feet of water past Milner. Canal diversions were 25,942 cfs. The remaining 277 cfs (549 acre-feet) was stored.

Water supply tables showing daily diversions, miscellaneous streamflows, daily streamflows and daily reservoir contents for the 2006 water year can be found in the appendix.

APRIL 1st SNOW WATER CONTENT

Lewis Lake Divide and White Elephant

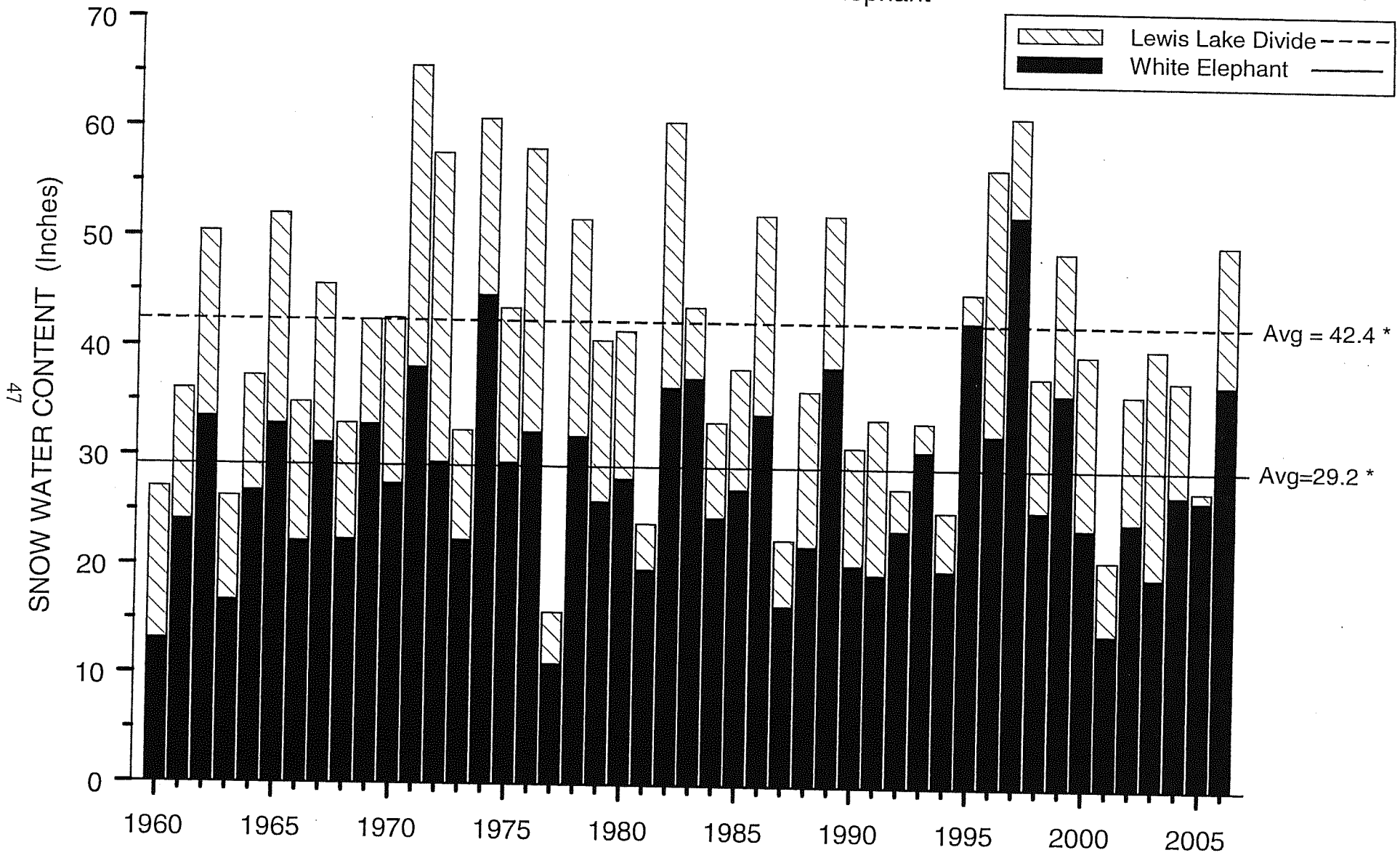

TABLE 1. 2006 April Through September Unregulated Streamflow at Selected Stations in Water District 1

Station	Unregulated Flow (acre-feet)	Percent of Average
Snake River near Heise		
Average (1971 - 2000)	4,160,000	100
April 1 Forecast	4,620,000	111
Actual	4,119,500	99
Henrys Fork near Ashton		
Average (1971 - 2000)	765,000	100
April 1 Forecast	810,000	106
Actual	840,000	110
Falls River near Ashton		
Average (1971 - 2000)	450,000	100
April 1 Forecast	485,000	108
Actual	530,100	118
Teton River near St. Anthony		
Average (1971 - 2000)	480,000	100
April 1 Forecast	545,000	114
Actual	523,700	109

The value is natural volume – actual volume may be affected by upstream water management

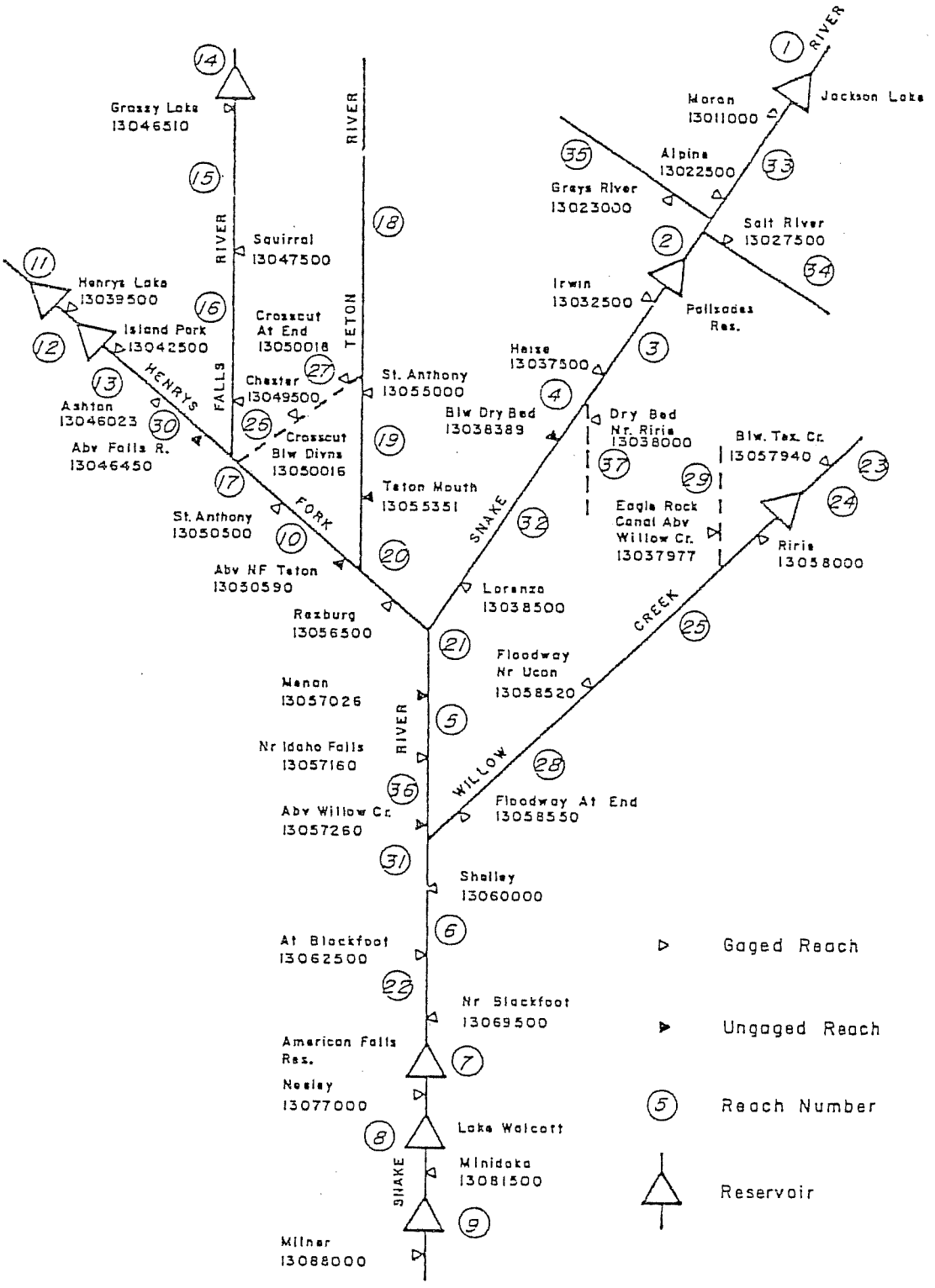

FIG. 2. Upper Snake System for Water Right Accounting.

TABLE 2. Travel Times Used In Water District 1 Water Right Accounting

No.	Name	Travel Time in Days From Downstream Point to Milner	Travel Time in Days From Diversion Points to Milner
1	To Moran	5	5
33	Moran to Alpine	5	5
34	Salt River above Reservoir	5	5
35	Greys River above Reservoir	5	5
2	Alpine to Irwin	4	4
3	Irwin to Heise	4	4
4	Heise below Dry Bed	4	4
37	Dry Bed near Ririe	4	4
32	Below Dry Bed to Lorenzo	4	4
11	To Henrys Lake	7	7
12	Henrys Lake to Island Park	6	7
13	Island Park to Ashton	5	6
30	Ashton to above Falls River	5	5
14	To Grassy Lake	6	6
15	Grassy Lake to Squirrel	5	5
16	Squirrel to Chester	5	5
26	Crosscut Canal below Diversions	5	5
27	Crosscut Canal at End	5	5
17	Above Falls River to St. Anthony	5	5
10	St. Anthony to above NF Teton	5	5
18	Teton above St. Anthony	5	5
19	St. Anthony to Teton Mouth	5	5
20	Above NF Teton to Rexburg	4	5
21	Lorenzo to Menan	4	4
5	Menan to Lewisville	4	4
36	Lewisville to Willow Creek	4	4
23	Willow Creek below Tex Creek	4	4
24	Below Tex Creek to near Ririe	4	4
29	Eagle Rock Cnl abv Willow Creek	4	4
25	Near Ririe to floodway near Ucon	4	4
28	Floodway near Ucon to End	4	4
31	Willow Creek to Shelley	3	4
6	Shelley to Blackfoot	3	4
22	At Blackfoot to near Blackfoot	2	3
7	Near Blackfoot to Neeley	1	1
8	Neeley to Minidoka	1	1
9	Minidoka to Milner	0	1

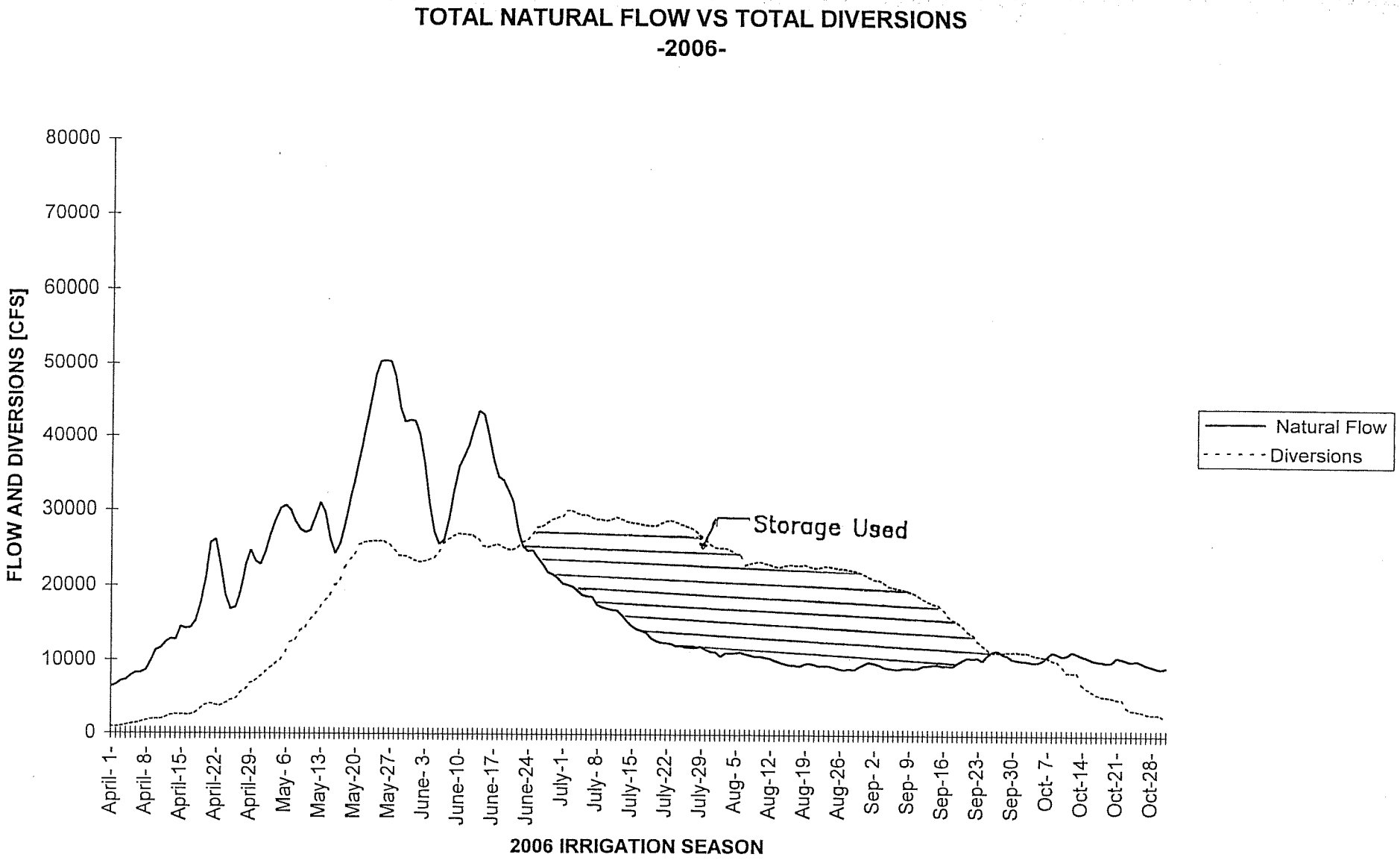

Figure 3. Natural Flow and Total Diversions

WATER RIGHT REGULATION

The natural flow supply is computed as described in the previous section. When the natural flow is determined for each day, it is allocated to water users starting with the oldest rights. The allocation process continues until all of the available natural flow has been distributed. The allocation of natural flow is for specific beneficial uses which include irrigation, storage (for specific purposes), power generation, and municipal and industrial uses. Lists of the rights as recognized in 2006 can be found in appendix C of this report. These rights are listed in order of priority and also by individual diversion or user (canal, pump, power plant, reservoir, etc.).

Figure 3 illustrates the constantly changing water supply that must be distributed by the watermaster each day. It also presents a generalized picture of the total water supply and the demand for water in the whole water district. Because the relationship between the availability of natural flow and demand may change from reach to reach, the priorities of water rights being filled will normally not be the same for all reaches. Also, because of the travel time involved between reaches, priorities will change on different dates for different reaches.

Tables 4 and 5 show the 2006 daily water right regulation schedule. Using these tables, the last right which was filled for a particular diversion can be found by the reach in which the diversion of interest is located. For example, assume someone wishes to know the last right being filled for the Wilford Canal on September 3, 2006. By knowing that the Wilford Canal's point of diversion is located on the Teton River below St Anthony, the September 3 date is found in the second column; then moving across the table horizontally, the priority of the last right being filled at most points on the river (primary priority) is found to be July 12, 1890. To the right of this "primary priority" are listed the exceptions to the primary priority. Because the Wilford Canal is one of the reaches where the exceptions exist, it is subject to the exceptions priority. Thus, no right later in time than June 1, 1885, was filled for the reach Teton River below St Anthony. From a listing of water rights found in appendix C it is determined that the Wilford Canal would be entitled to divert 78.07 cfs of natural flow under priorities earlier than June 1, 1885. Its next right, which has a priority of April 1, 1898, was not delivered. Therefore, on September 3, 2006, the Wilford Canal was entitled to divert up to 73.07 cfs of natural flow.

Storage diversions on a particular day are found by subtracting the natural flow diversion from the total diversion. Using the above example, the storage diversion of the Wilford Canal on September 3 is equal to its total diversion of 95 cfs (see appendix) minus the 78.07 cfs natural flow diverted. Therefore, the

segregation of natural flow and stored water used by Wilford Canal on September 3, 2006 was:

Natural Flow	78.07	Cfs
Stored Flow	16.93	Cfs
Total Diversion	95.00	Cfs

The reaches in tables 4 and 5 were numbered for convenience in making these tables and have no intended relationship to the reaches used in the watermaster's accounting process shown in figure 2.

DIVERSIONS AND STORED WATER USE

This section lists the 2006 irrigation year (November 1, 2005 to October 31, 2006) water use by canal and summarizes the diversions by reaches of the river. The eleven river reach groups are: Snake River from Irwin to Dry Bed, Snake River Dry Bed, Snake River from Dry Bed to Lorenzo, Snake River from Lorenzo to Idaho Falls, Snake River from Idaho Falls to Blackfoot, Snake River from Blackfoot to Milner, Henrys Fork from Island Park to Ashton, Henrys Fork below Ashton, Falls River, lower Teton River, and Willow Creek.

Diversions for the above listed reaches are given in tables 6 through 16. Acreage figures are shown for most of these diversions and annual per acre volumes are calculated. No attempt was made to confirm the acreage figures used. Table 17 is a summary of regularly measured diversions. Diversions totaled about 7.3 million acre-feet, compared to 6.7 million acre-feet diverted in 2005.

In addition to the diversions, there are other diversions administered separately which are listed in the appendix under "Miscellaneous Streamflow Records."

As described previously, all diversions that exceed natural flow entitlements will be charged storage for the difference between the sum of available natural flow rights and the total diverted each day. Most users own or have contracted for specific storage space entitlements in one or more reservoirs. Other users who do not have storage are frequently able to "purchase" unused stored water from the Water District 1 Rental Pool when natural flow is insufficient to meet their needs.

The storage accrued to each reservoir at the end of the spring runoff is indicated in table 18. Reservoir evaporation is deducted from the accrued storage. The allocable storage is the accrued storage minus evaporation. Table 18 shows the evaporation charged against each reservoir and the amount in each that was allocated for use during 2006. Initially evaporation is estimated for each reservoir, but because actual evaporation is not known until the end of the season, the final allocation can not be made until then. Of the 4,063,752 acre-feet initially stored, 3,977,520 acre-feet remained available for allocation after actual evaporation losses were taken into account. Storage held in Milner is included but has not been allocated.

Tables 19 through 26 indicate storage water allocated and used, by canal, during 2006. Diversions listed in these tables are grouped by river reach. Table 27 is a summary of these storage accounts by reach.

Tables 19 through 27 are divided into nine columns. Column one indicates the water allocated to each user after evaporation losses have been subtracted.

Column two reflects supplies furnished to or obtained from the Water District 1 Rental Pool. A negative sign (-) indicates water supplied for sale through the rental pool and unsigned numbers represent storage purchased. Storage supplies provided by the Fremont-Madison Irrigation District from Island Park and Grassy Lake Reservoirs are included under this heading, even though they were considered internal sales of stored water that were not necessarily transacted through the rental pool. The system sum of the numbers in column two must equal zero (see table 27).

Column three is the gross storage use as indicated by the watermaster's account computations.

Column four indicates water supplies that were purchased from the rental pool (or provided by the Fremont-Madison Irrigation District) and not used. These unused supplies were returned to the rental pool.

Column five shows the unused water from column four returned to the appropriate space holder at the end of the season. Columns four and five totals must be equal for the system to balance (see table 27). This water becomes available to the space holder as part of his carryover.

Column six lists the unadjusted balance of storage transactions (column 1 + column 2 - column 3 - column 4 + column 5).

Column seven indicates adjustments that were made to column six. Ideally, on October 31 of each year, the stored water used by each canal can be obtained directly from the current accounting computations. In actual practice, this is rarely the case because some adjustments must be made. Reasons for storage adjustments range from data errors and changes in water rights distribution to alternate supplies of water. Values in column seven are footnoted to explain the specific reason for each adjustment. All column seven footnotes for tables 19 through 26 are listed at the bottom of table 26.

Column eight shows excess storage used that had not been offset by purchase from the Water District 1 Rental Pool or by other adjustments applied at the end of the year. The sum (see table 27) of columns seven and eight represents groundwater exchange pumping, groundwater mitigation, Ririe Reservoir adjustment, excess used by Fremont-Madison, and a correction for gain averaging.

Column nine indicates the carryover credited to each canal on November 1, 2006, and is found by adding columns seven and eight to column six.

Excess use on the Teton River in some cases is offset by groundwater exchanges. Seasonal volumes of water pumped from groundwater to replace

diverted surface water are identified as "exchange pumping" and are shown as adjustments in table 19 through 26. For 2006, exchange pumping totaled 2,852 acre-feet. Daily records of exchange pumping are shown in the appendix.

Table 27 shows 4,009,302 acre-feet of storage water allocated, plus a net of 170,102 acre-feet of rental purchase, and 2,274,350 acre-feet of storage used, resulting in a preliminary balance of 1,905,054 acre-feet. Miscellaneous storage use of 281,795 acre-feet was composed of 43,336 acre-feet used by Idaho Power, plus 217,780 acre-feet used for flow allocation, plus an additional 20,680 acre-feet of October storage spilled past Milner. Adjustments to the preliminary balance totaled -8,706 acre-feet, while system excess use was 9,293 acre-feet, resulting in a net gain in storage of 587 acre-feet. Adding this net gain in storage to the preliminary balance yields a carryover at the end of the season of 1,905,641 acre-feet.

Table 28 summarizes the 2006 storage accounts for the system. Late season reservoir fill, which occurred as a result of declining diversion rates and increasing natural flow in the fall, was 256,915 acre-feet through October 31 adjusted by 170,408 acre-feet of rental supply, for a total of 1,992,148 acre-feet in storage. Actual observed reservoir contents by reservoir are shown in table 29.

WATER DISTRICT 1

2006 RENTAL POOL PROCEDURES

RULE 1. AUTHORITY AND STATEMENT OF PURPOSE.

1.1. These procedures have been adopted by the Committee of Nine of Water District 1 pursuant to Section 42-1765, Idaho Code, to assure the orderly operation of the Water District 1 Rental Pool. Under no circumstances shall these procedures be interpreted or construed to limit the authority of the director of the Department of Water Resources, the Water Resource Board, or the Snake River Watermaster in discharging their duties as set forth in the statutes of the state of Idaho and rules and the regulations promulgated thereto.

1.2. The purpose of these procedures is to provide:

A. The rules by which the Committee of Nine, acting under the authority of the appointment of the Committee of Nine by the Water Resource Board, as a local operating committee, will make stored water available through the Rental Pool.

B. A process, which complies with the Idaho Code and the Water Bank Rules of the Idaho Water Resource Board, by which stored water supplies will be made available by spaceholders for rental through the Water District 1 Rental Pool.

C. Incentives to storage space holders to participate in three after-the-fact rental processes established by these procedures: (1) The allocation of storage defined in these procedures as "late season fill" as the water supply made available for certain storage rentals made previously by the Committee during the irrigation season; (2) making spaceholder's space and water accruing thereto available to the rental pool for other users and uses through private leases and (3) making spaceholder's space and water accruing thereto available to the rental pool for other users and uses through specific assignments of water to the rental pool.

D. Expanded opportunities for all spaceholders to participate in and benefit from the proceeds of the rental pool.

E. Priorities for selecting between competing rental applications during times of water scarcity.

F. Funding for the Committee of Nine on behalf of spaceholders to defray costs in the operation of its rental pool, for making improvements in distribution

Where: P = Payment to Participating Spaceholder
R = 70% of Net Proceeds from Rental of Late Season Fill
SP = Space of Participating Spaceholder
ST = Storage water of Participating Spaceholder
TSP = Total Space in System
TST = Total Storage in System

Because the Watermaster must determine ST (each spaceholder's current allocation), payments cannot be made to participating spaceholders until the Watermaster has computed final water distribution data for the year. Final storage allocation data will not be available for approximately nine (9) months after the end of the current irrigation year, or up to 18 months after the rental water was used. Therefore, payments made to impacted spaceholders will initially be based on preliminary data. Adjustments to impacted payments will be made after the final accounting has been completed at the end of the irrigation season.

1.6. If the reservoirs do not fill, each participating spaceholder will be paid for water leased through the rental pool the previous year based upon the extent to which the spaceholder's storage is found to have been impacted in the current year from the past year's rental activities. Those participating spaceholders found to have been impacted shall be paid from the remaining 30% of the proceeds from the net rentals, as described in rule 3.6 & 7.2 below.

1.7. In any year when the water rights for the surface water storage facilities distributed by Water District 1 do not fill, the Watermaster will determine, using a procedure developed by Water District 1, unless disapproved by the Director: (1) what the fill would have been had the previous year's rentals not taken place, (2) the storage space from which rental water was actually supplied for the previous year's rentals and (3) the amount of water each spaceholder's current allocation was reduced by the previous year's rental activities. Impacted spaceholders (whose space actually ended up supplying the water) will be paid, at the rate established in rule 3.6 below.

1.8. In addition to the late season fill using an after-the-fact method of leasing described herein, a spaceholder may assign additional water for agricultural rentals or recharge. If refill of the storage system does not occur the following year and the additional rentals caused impacts as determined by the procedures developed by Water District 1, unless disapproved by the Director, then the assigning spaceholder's subsequent year's storage allocation shall be reduced by an amount equal to such impacts and that portion of his accrual will be reallocated to mitigate the impacts. One hundred percent (100%) of the rental price shall be paid to the assignor, less all established administrative fees and Board surcharges.

1.9. Spaceholders may also enter into private leases, either within a system or between systems, for agricultural purposes above Milner. The lease price may be different

WATERMASTER REPORT 2006

The 2006 year was a year of change, beginning with the election of Lyle Swank as Watermaster of Water District 1 (WD1). At the WD1 annual meeting, Lyle listed some of his attributes and qualifications. They include a farm background, and the values he has grown up with including responsibility, honesty, a strong work ethic, and understanding the importance of water. Most people who have grown up on farms have a lot of common sense and multiple skills they have developed. Lyle has an Agricultural Engineering education and is a Professional Engineer registered in the state of Idaho. With 27 years of experience with WD1, and starting with the computerization of WD1's Water Right Accounting Program, he brings experience with the automation of data collection including establishment of the hydromet canal data system, and design of many of the weir measurement structures of canals within the district. In addition to his many years working on the day-to-day water delivery, Lyle has also created the IRIS water management and informational display tools used for water delivery within the district. Recently the district has also added additional posting and publishing of data on the internet.

Other changes and challenges from the transition following the retirement of Ron Carlson as watermaster included hiring an additional staff member of Water District 1. By retaining Tony Olenichak as the Program Manager and Helga King as an IT programmer they bring their experience and skills to the water district. The depth of the staff was strengthened by hiring Joe Kaufman as an Engineer-in-Training. In order to carry on the important work of the district, it will be necessary to utilize many different skills of the water district staff, and there is a lot of combined experience from these valuable staff members. The water district had not successfully filled the other Engineering classification job previously held by Ryan Madsen who moved to the Eastern Region Safety of Dams Engineer position

Changes during the year included hiring Lisa Snarr as a Financial Specialist, and later rehiring Wendy Murphy part-time in addition to her administrative support of Water District 120, 110, and 100. Change in the Teton Basin included hiring Denny Thomas as the Teton Basin deputy watermaster, and Wayne Lenz as the gage reader on Falls River.

Some other agencies also experienced change at upper levels, including replacing John Keys, Commissioner of Reclamation, by Robert Johnson. In Congress, elections nationally swung Democratic for both the House and the Senate. Other musical chairs during the past year, found Governor Dirk Kempthorne appointed Secretary of the Interior, Lieutenant Governor James Risch then served the remainder of the term as Governor until C.L. "Butch" Otter was elected Governor of Idaho. Karl Dreher was not re-appointed as Director of Idaho Department of Water Resources, and Dave Tuthill succeeded him as Director.

One of the more important challenges and issues unresolved at this point, include the water calls made by members of the Surface Water Coalition. These issues continue

to heat up and are headed to at least District Court if not the Idaho Supreme Court. The surface water vs. groundwater issues are contentious, and are expected to be very time consuming for many people within the Department of Water Resources. The Director's Conjunctive Management Rules have been challenged and appealed to the Supreme Court.

There is a lot of effort being made to have a more effective groundwater recharge program. This would help stabilize the Eastern Snake River Plain Aquifer (ESPA) and could be a big part of the solution to this problem. Recharge is one way to retain valuable water within the ESPA by recharging at times of surplus water supplies, and retaining water in the aquifer which has been severely affected by the drought from 2000 through 2005. There were times during the 2006 runoff season when water flows were above capacity of power plants, and was spilled past Milner Dam. This water was essentially "wasted" on down the lower Snake and Columbia Rivers. Water which was used to generate power during the peak runoff time period provided only marginal additional value during this time of year. Having some water being recharged re-emerging later is expected to be more valuable in the future. Managed recharge of the ESPA is an emerging issue which would provide long-term benefits to water right holders of groundwater rights, springs, and increase natural flow later within the year, and future years. Recharge needs to be strongly encouraged wherever it is feasible.

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FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 5

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1946"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

DISTRICT No. 36

SNAKE RIVER, IDAHO

1946

normal at Moran, 105% at Heise, 105% from Island Park, 102% on Fall River, and 108% on Teton River.

The runoff at Heise and on Teton River was slightly greater than was indicated by the snow surveys, elsewhere it was slightly less. Due to variations in precipitation after the snow surveys are made, variable ground water holdover from the preceding year, etc., the snow surveys cannot be expected to correspond with the subsequent runoff closer than 10% in most years.

REGULATION SCHEDULE

The following schedule shows priorities being filled during 1946. About 44,000 acre-feet of storage were withdrawn from American Falls Reservoir May 15-27 to fill downstream demands. The reservoir subsequently refilled, however, so no charge against storage allotments was made for the stored water used in May.

Storage draft at American Falls charged to the canal companies began on July 1 and continued until September 22, when storage began to accumulate for 1947.

Stored water release from Jackson Lake began July 8, from Henrys Lake July 5 and Island Park July 5. No need existed for any stored water to be used from Grassy Lake but about 3,000 acre-ft. were withdrawn during August to do some work at the dam.

The so-called upper valley "flood rights" of 1916 priority were cut off on July 3. Thereafter rights were gradually cut as the natural flow decreased until the low point was reached August 21-22 with 25% of the January 24, 1891 right being filled. Rains beginning about August 23 and occurring irregularly thereafter resulted in rights varying from June 1, 1891 to March 26, 1903 priorities

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WATER RESOURCES

EXHIBIT 6

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1936"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

WATER DISTRICT NO. 36

1936

By Lynn Crandall

Watermaster

River and Gros Ventre the entire low water flow of the streams is diverted in Wyoming. Probably at least 2500 second-feet are diverted to supply these Wyoming rights and this is no doubt one of the reasons why the natural flow cuts on Snake River in Idaho begin at an earlier date and reach to earlier priorities each year than was formerly the case.

It is a matter of regret that lack of storage facilities resulted in the waste of 620,000 acre-feet of surplus flood waters past Milner during 1936. About one-fourth of this waste could have been retained if the reservoirs now under construction at Island Park and Grassy Lake had been completed. The occurrence of a year of fairly good run-off in 1936 should not be permitted to result in any decrease in efforts towards further water conservation. Dry years to be expected in the future will require all the water that can be made available from any source at reasonable cost if the established irrigated agriculture is to be adequately maintained in the Snake River Valley.

TRANSFERS & EXCHANGES

The following permanent transfers were granted during the year after advertising and hearing before the Commissioner of Reclamation as provided by the Idaho Statutes:

Transfer No. 558.- 9.18 sec. ft., June 1, 1886 priority, from Long Island Canal to Lenroot Canal.

Transfer No. 559.- 2.50 sec.-ft., June 1, 1884 priority, from Osgood Canal to New Swedon District canals.

Transfer No. 560.- 0.60 sec.-ft., June 1, 1886 priority, from Long Island Canal to Sunnydell Canal.

Transfer No. 562.- 3.20 sec.-ft., June 1, 1887 priority, from Harrison Canal to Farmers Friend Canal.

Transfer No. 563.- 4.56 sec.-ft., June 1, 1886 priority, from Long Island Canal to Lenroot Canal.

Transfer No. 565.- 1.00 sec.-ft., June 1, 1885 priority, from Butler Island Canal and 1.00 sec.-ft., June 1, 1886 priority, from Long Island Canal to lands in Swan Valley served by Palisade Canal.

Twelve measurements of the spring inflow between Cloughs and Neeley were made during the months May to September inclusive and together with the daily flow of Portneuf River at Pocatello and the unmeasured inflow computed from the Newell formula were used to calculate the daily inflow from Cloughs to Neeley shown on Plate 11. During the latter part of the season this inflow averaged about 200 second-feet more than during the same period in the preceding year of 1935.

The normal flow at Neeley, computed by adding to the normal flow at Cloughs the inflow Clough to Neeley, was delivered without loss or gain to downstream canals according to their respective priorities and any additional amounts diverted by these canals were classed as storage.

STORED WATER DELIVERIES

Both Jackson Lake and American Falls reservoirs filled and all rights were 100% filled. Both reservoirs reached points during the high water slightly in excess of their rated capacity but such excess was not allotted.

Allotments were made as follows, arranged in downstream order from the Heise measuring station.

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 7

Letter, Assistant Secretary of the Interior Kenneth Holum to
Federal Power Commission Chairman Joseph C. Swidler
(Aug. 30, 1962)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

AUG 30 1962

Dear Mr. Swidler:

As indicated in previous correspondence, this Department has had under consideration the preparation of suitable comments and recommendations with respect to the application of the Idaho Power Company for a license under Project No. 2258 for the facilities heretofore constructed by the power company on the Snake River in Idaho at American Falls, at Shoshone Falls, and at Upper Salmon Falls, together with certain described transmission facilities. The time permitted the Department to look into this matter, which involves a history of complicated arrangements with the Idaho Power Company prior to and including the time of the first enactment of the Federal Water Power Act in 1920, is appreciated.

The hydroelectric installations sought to be licensed by the Idaho Power Company under Project No. 2258 are located in part on Federal lands reserved for use in connection with Federal reclamation projects which are the responsibility of this Department. Specifically, the hydroelectric plant at American Falls is located in part on public lands and on lands acquired by the Department for the construction of the American Falls Reservoir, a feature of the Minidoka Federal Reclamation Project, and water stored in that project for project uses is infringed upon by the installation proposed to be licensed by the Idaho Power Company. The hydroelectric stations at Shoshone Falls and at Upper Salmon Falls as shown on the drawing submitted by the Idaho Power Company's application as being lands owned by the company include public lands of the United States. Descriptions of the public lands involved will be transmitted at an early date. No authorization has been given for occupancy of the Federal lands in question.

The American Falls installation of the Idaho Power Company is immediately downstream from the American Falls storage project of the United States which was constructed in 1926. The impoundment of the water in the forebay of the Idaho Power Company's plant backs up to and infringes upon the downstream toe of the American Falls Dam of the United States. To evacuate all the stored water from the active storage capacity of American Falls Reservoir of the United States requires the lowering of the forebay elevation of water in the plant constructed by the Idaho Power Company. In these circumstances, to protect the integrity of operation of the Federal reclamation project which is a responsibility

FEDERAL POWER COMMISSION
DOCKETED
AUG 30 1962
DOCKET SECTION

of this Department, it is essential that the license contain appropriate provisions with respect to the requirements of the Idaho Power Company in connection with its operation of the American Falls plant constructed by it.

It is therefore the view of this Department that the Idaho Power Company as a condition to the issuance of the license be directed to obtain from this Department with respect to the American Falls powerplant an appropriate operating agreement which should include the following:

1. The company shall operate its facilities at American Falls in such a manner as not to interfere with the release of water by the Government at American Falls Dam, and when required by the United States, acting through this Department, the company shall draw down the elevation of water in its forebay pool sufficiently to permit the waters to flow from the Government's American Falls Dam into the forebay of the power company's installation at rates of flow required for irrigation operations as determined by this Department.

2. The power company shall agree for itself, its successors and assigns, that all rights for the use of water for power purposes heretofore or hereafter acquired for the development of power at the company's site, shall be held and considered at all times inferior and subordinate to all rights heretofore or hereafter acquired by the United States or other parties for irrigation or other beneficial uses.

3. The company shall cooperate with the United States Department of the Interior, Bureau of Reclamation, in making the maximum justifiable development of the power resources of the site. Such cooperation shall include: (a) the use of the company's water entitlements together with other water releases at American Falls Dam for operation of the authorized Government powerplant, or (b) the use of Government and other water releases together with the company's water entitlements for operation of the company's plant at American Falls Dam in whatever combinations from time to time as will maximize the production of electricity at this site. Under such arrangement the company would receive the same amount of energy from the combined

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operations as it could have produced at its own plant (without using the water developed by the Government) as determined by the Secretary of the Interior. The arrangements should include provision that prior to the construction and operation of the authorized Government powerplant at American Falls Dam, the company, upon the request of the Secretary of the Interior, shall generate for the United States electrical energy using the water entitlements of the United States provided in the contract made between the Government and the company in June of 1923 (a copy of that contract is attached). The electric energy so produced for the United States should be furnished to the United States at a nominal voltage of 46 kilovolts or such other voltage as may be agreed upon by the Secretary of the Interior and the company at the American Falls substation of the company or at the Michaud Flats pumping plant substation of the United States in the following amounts: (a) during the period April 1 to October 31 for operation of the irrigation pumping installations up to a maximum rate of delivery of 19,000 kilowatts, and (b) during the period November 1 to March 31 for purposes described in articles 19 and 23 of the contract of June 1923 up to a maximum rate of delivery of 10,000 kilowatts. The arrangement would contain provisions for reimbursement to the company for the use of its generating facilities at a rate per kilowatt-hour which would cover a ratable portion of the company's hydroelectric production expenses prescribed and recorded under the Federal Power Commission uniform system of accounts, accounts Nos. 535 to 545, inclusive.

The foregoing provisions of an operating agreement with the Idaho Power Company are the minimum essentials needed to protect the operating integrity and financial investment of the United States in the existing American Falls Reservoir Federal Reclamation Project upon which the Idaho Power Company has located its constructed American Falls plant. The costs of the project include not only $1,000,000 which was paid to the Idaho Power Company by the United States for interference with the Company's alleged power rights at American Falls, but also includes the cost of providing special penstocks through the dam for the company's use in developing the capabilities of the power site at American Falls. The company, without consulting with this Department, or so far as is known, with the Federal Power Commission, determined on its own motion not to utilize these specially constructed penstocks, but the company proceeded to build the plant for which it is now required to have a license. The Government's project at American Falls from its authoriza-

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tion in 1920 has included a power installation which powerplant was reauthorized by the Congress in 1950 (64 Stat. 1083). Under items 1 and 2 above, the company would be required to provide a return to the United States of the energy from the water rights which were purportedly sold to the United States by the company under the 1923 agreement. Also, it would provide a commitment by the company to subordinate its entitlements at American Falls to the principal purpose for which the storage reservoir at American Falls was constructed, that is, for the irrigation of arid lands in the State of Idaho. Supporting details concerning the provisions of the 1923 contract and the engineering facts concerning the water entitlements involved will be provided in a supplemental communication.

The Shoshone Falls plant of the Idaho Power Company proposed to be licensed under Application No. 2258 is immediately downstream from the Twin Falls plant of the company which was licensed under Project No. 18. The Twin Falls plant, like the Shoshone Falls plant, involves the utilization of public lands of the United States. The Shoshone plant is located downstream from Milner Dam, the control point for the utilization of the waters of the Snake River for development of public lands of the United States through irrigation. The Idaho Power Company officials have been repeatedly advised, beginning with the early negotiations concerning the development of stored water for irrigation at American Falls, that the best development of the waters of the Snake River require there be no power developments below Milner Dam which rely upon flows of water past Milner Dam for power production. The United States, acting through this Department, has constructed upstream from Milner a reservoir system in excess of 4,500,000 acre-feet, all of which is operated with the objective of conserving the water to minimize spills past Milner Dam. This matter was the subject of extended negotiations with the Idaho Power Company in connection with the issuance of the license under Project No. 18 at the Twin Falls site. In view of this long history of the obvious need for the conservation of water above Milner Dam, and in view of the many public statements of the officials of the Idaho Power Company, including those made to your Commission in connection with the issuance of the license in the Hells Canyon reach of the Snake River, there should be no objection, and it is in the public interest, that the license for the Shoshone Falls plant should clearly subordinate the water supply for that plant to the use of water for development of irrigated areas upstream. Accordingly, it is recommended that any license contain provisions along these lines:

> "The power company shall agree for itself, its successors and assigns, that all rights for the use of water for power purposes heretofore or

JRP010540

hereafter acquired for the development of power at the company's site, shall be held and considered at all times inferior and subordinate to all rights heretofore or hereafter acquired by the United States or other parties for irrigation or other beneficial uses."

The Upper Salmon Falls development is also located downstream from the Milner Dam and its water supply should also be clearly subordinate to upstream irrigation development. This Department has underway an extensive program of investigations and project proposals which will provide further multiple purpose storage and irrigation development in the Snake River Basin above Milner Dam. These include, of course, the Burns Creek Project, the Fremont Project, and others. We are prepared to provide the Commission with detailed information concerning these presently recommended and potential irrigation developments.

The records available to this Department indicate that the projects of the Idaho Power Company described in Project No. 2258 were in existence at American Falls and Shoshone Falls prior to 1920 and the Upper Salmon Falls installation was undertaken in 1937. As these projects involve the unauthorized use of the public lands of the United States, it is appropriate to comment with respect to the term of license. It is recommended that the license as issued not exceed the 50-year period from the time of first enactment of the Federal Water Power Act or from the beginning of construction by the company, whichever is later. This recommendation is particularly appropriate in order to discourage further unauthorized entry on public lands for the construction of hydro-electric stations and not to give advantage to companies which do so. Our records indicate that the Idaho Power Company had notice of the existence of the applicability of the provisions of the Federal Power Act in connection with these specific projects. An application for a preliminary permit at Upper Salmon Falls was made to the Federal Power Commission on June 17, 1920 (Project No. 19). Also, the 1923 contract which was negotiated with the Idaho Power Company officials during 1919 and 1920 contains a specific article (Article 36) which provides that the execution of the contract was not to relieve the Idaho Power Company of its responsibility to comply with the provisions of the Federal Water Power Act with respect to obtaining licenses at the American Falls site and downstream sites on the Snake River. Article 36 reads as follows:

"No waiver of rights of Federal Power Commission or State.
The execution of this contract shall not be construed as waiving any authority, jurisdiction or control which the Federal Power Commission may have over the Company or its assigns at American Falls or elsewhere, and the

JRP010541

approval of this contract by W. G. Swendsen Rec. Comm. Representing the State of Idaho shall not be construed as waiving or abridging any lawful jurisdiction, authority, or control which such officer or the State of Idaho may have over the waters of the State or the Issuing of permits, certificates or licenses thereto."

The transmission lines included in this project are an essential part of the major transmission grid for which this Department has made arrangements to wheel power, through a relatively recent contract with the Idaho Power Company. We therefore request that any license that might be issued recognize and protect the basic elements of these wheeling arrangements, and provide that the applicant will, during the term of the license, make its transmission facilities available for the wheeling of Government power on such terms and conditions as may be mutually satisfactory to the applicants and the Department of the Interior.

Fish resources of the development areas are resident species, principally rainbow trout, which are supplemented with stocked fish released by local, State, and Federal fish hatcheries. A good trout fishery occurs below the diversion dams at Upper Salmon Falls, and below Shoshone Falls and American Falls. Sturgeon inhabit the river below Shoshone Falls, and bass and bluegills have been introduced in the pool above the falls. Species of fish which compete to the detriment of game fish are numerous throughout this reach of Snake River. There are no anadromous fish associated with the three developments. Except for a short section of the river below American Falls Dam, the stream is open to fishing throughout the year and is well utilized by fishermen.

Existing fish facilities include ladders at the two diversion dams at the Upper Salmon Falls development. The ladder at the downstream diversion provides access for rainbow trout to spawning grounds in the section of river between the diversion and the upstream powerhouse. The ladder at the upper diversion receives little use.

Peak-power releases of upstream developments result in increases of streamflow which are not all passed through the reject spillway at the Upper Salmon Falls development. This causes an increase in flow over the upper diversion dam, excessive flow through the fish ladder, and side-spills from the canal leading to the upper powerhouse. In addition to being a hazard to fishermen, such flows adversely affect fish and wildlife habitat by creating unstable water conditions. Emergency closure of gates controlling flows to generator penstocks creates similar conditions, although the reject spillway at the powerhouse releases most of these flows. The hazard to fishermen is greatest below this

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point because of the large volume of water that is released. The channel below the spillway has been fenced to exclude fishermen from this section. Signs warning fishermen that a sudden increase in water levels in the river may occur unexpectedly have also been installed along the river by the company.

Fish and wildlife resources would benefit if surplus upstream releases, which overflow facilities associated with the upper powerhouse, could be diverted through one or two outlets into one river channel. This could be accomplished by either enlarging the reject spillway and passing additional flows through the present structure, or by releasing flows through a gate in the canal near the diversion dam. To prevent side-spills from the canal, the wall for about one-half mile upstream from the powerhouse would have to be increased in height by about 12 inches to match the remaining portion upstream.

Snake River streamflow in the Shoshone Falls development area is affected by heavy irrigation diversion at Milner Dam, about 24 miles upstream from Shoshone Falls. Springs and irrigation return flows contribute significant amounts, and there is a sizable streamflow at Shoshone Falls. During normal flows, all water is diverted through the powerhouse at the Shoshone Falls development. Discharge from the powerplant is made directly into the Snake River channel and is adequate to maintain fish in this portion of the river. When facility repairs are being made at Shoshone Falls, upstream reservoirs are operated to store water and none is released through the powerplant to the river below the falls. If repairs were continued for extended periods, adverse effects on the fishery below Shoshone Falls development would result. To avoid such losses, an outlet structure should be provided to release unused water into the river channel for fish. At no time should this flow be interrupted for a period longer than six hours. Construction of roads to the powerhouse has improved the access for fishing in this section of Snake River.

Extreme fluctuations and periods of very low streamflow downstream from American Falls Dam have resulted in substantial fish losses. The company has deepened the stream channel immediately downstream from the powerplant to provide a sanctuary for fish during periods of minimum releases. The company also has installed lights near the channel to attract fish into the deeper water when low flows occur at night.

No formal negotiations regarding fish and wildlife resources associated with the developments have ever been conducted between the company and conservation agencies. The Idaho Department of Fish and Game and the Idaho Power Company have informally agreed that, in the interest

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of economy, it is considered unnecessary to operate the fish ladder at the diversion dam at upper Salmon Falls during the period from March 1 to September 1 of each year. Negotiations are planned between conservation agencies and the Bureau of Reclamation in an attempt to find a method for providing sustained flows below American Falls Dam. If sustained flows could be maintained below the Idaho Power Company developments, additional benefits to fish and wildlife resources would result.

Ring-necked pheasant, valley quail, muskrat, mink, and numerous species of waterfowl inhabit the thick cover on islands and shorelines of Snake River within the project areas. Wildlife resources are not significantly affected by the company's operations except at the Upper Salmon Falls development where wildlife habitat is subject to inundation as a result of flow increases over the diversion dam. This operating procedure precludes use of the area by nesting waterfowl.

In order to protect the fish and wildlife resources affected by the project, it is recommended that, in addition to the appropriate L-form provisions, the following special conditions be included in any license issued for this project:

(1) The Licensee shall construct, maintain, and operate or shall arrange for the construction, maintenance, and operation of such fishways, including fish traps, or other fish facilities or fish protective devices and supporting facilities for artificial propagation and shall comply with such reasonable modifications of the project structures and operations in the interest of fish life, provided that such modifications shall be reasonably consistent with the primary purpose of the project and not unduly impair the power value of the project, as may be prescribed hereafter by the Secretary of the Interior (pursuant to Section 18 of the Act) upon consultation with the Licensee, the Commission, and the Idaho Department of Fish and Game.

(2) The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such protective devices (exclusive of facilities which may be prescribed by the Secretary of the Interior pursuant to Section 18 of the Act) and shall comply with such reasonable modifications of project structures and operation in the interest of fish and wildlife resources, provided that such modifications shall be reasonably consistent with the primary purpose of the project and not unduly impair the power value of the project, as may be pre-

JRP01054

scribed hereafter by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the Idaho Department of Fish and Game after notice and opportunity for hearing and upon a finding based on substantial evidence that such modifications are necessary and desirable, and consistent with the provisions of the Act.

(3) Whenever the United States shall desire, in connection with the project, to construct fish handling facilities or to improve existing fish handling facilities at its expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of Licensee's lands and interests in lands, reservoirs, waterways, and project works as may be reasonably required to complete such fish handling facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be prescribed by the Commission, consistent with the primary purpose of the project, in order to permit the maintenance and operation of the fish handling facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish handling facilities or to relieve the Licensee of any obligation under this license.

(4) The Licensee shall, at the Upper Salmon Falls development, eliminate or minimize overflows at the upper diversion dam, excessive flows through the fish ladder, and side-spills from the powerhouse canal.

(5) The Licensee shall, at the upper powerplant of Upper Salmon Falls development, provide an automatic warning device designed to alert anyone immediately downstream from the reject spillway simultaneously with increased water releases.

(6) The Licensee shall release all unused flows into the river below Shoshone Falls development during periods when facility repairs are required.

JRP010545

If it becomes necessary to interrupt flows, they shall not be interrupted for a period exceeding six hours.

Sincerely yours,

[redacted]

Secretary of the Interior

Hon. Joseph C. Swidler
Chairman
Federal Power Commission
Washington 25, D. C.

Enclosure

JRP01054

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FEB 22 2012
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WATER RESOURCES

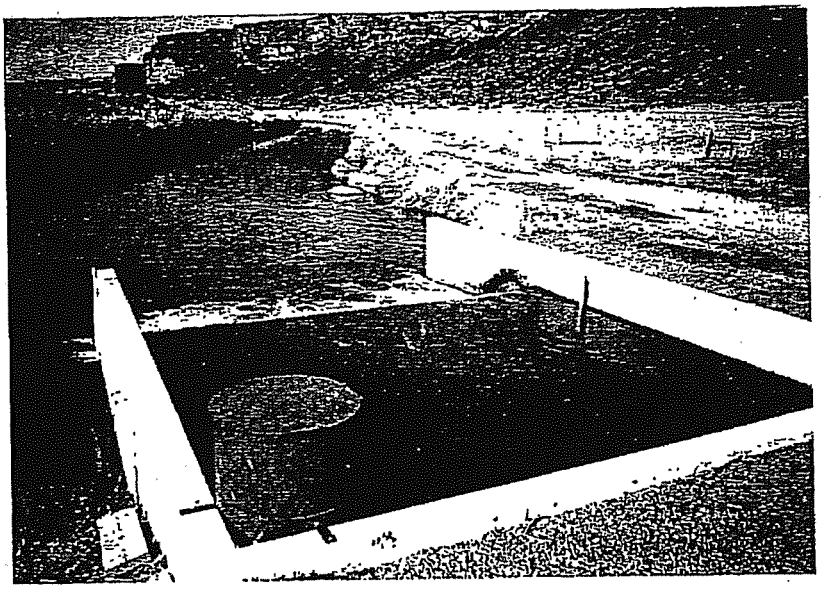
EXHIBIT 8

Excepts, "Watermaster Handbook"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

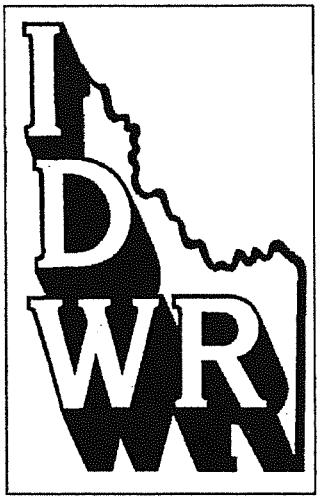


WATERMASTER HANDBOOK

IDAHO DEPARTMENT OF WATER RESOURCES

Exh. No. 4
Date 10/6/08
Name Olenichak
M & M Court Reporting

WATERMASTER HANDBOOK



(Statute update through 2000)

IDAHO DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street
Boise, Idaho 83706
(208) 327-7900

PREFACE

Proper water distribution under Idaho water law and the appropriation system is the primary goal and responsibility of all Idaho watermasters. Daily water distribution, record keeping, measurement and general water district management can be a challenge. While the difficulty associated with these tasks depends upon the size and complexity of the individual water district, most of the principles and concepts involved are common to all districts. The purpose of this handbook therefore is to provide a quick reference when questions arise concerning water districts, and to provide all watermasters with the basic information needed to deliver water and manage a water district.

This handbook is divided into several sections involving different aspects of water delivery and water district management. Each section, while not all inclusive, is intended to stand alone and provide information when questions are raised concerning water districts and watermaster duties. Further information and assistance may be obtained by contacting any one of the Idaho Department of Water Resources offices listed on the following page.

IDAHO DEPARTMENT OF WATER RESOURCES

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Fax - 525-7177

Southern Region
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Twin Falls, Idaho 83301-3380
(208) 736-3033
Fax - 736-3037

Western Region
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Fax - 334-2348

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Boise, Idaho 83705
Mailing Address
PO Box 83720
Boise, Idaho 83720-0098
(208) 327-7900
Fax - 327-7866

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SECTION 8. – DISTRIBUTION OF WATER

A. GENERAL

As between appropriators, the older right is the better right and is to be supplied before later in time appropriators. Several Idaho court cases have stipulated that the watermaster may disregard the call of a senior downstream water user if, in the judgement of the watermaster, the water will not reach its point of diversion or an inadequate amount of said water will reach its point of diversion (i.e.; a futile call.) Some decrees in the state provide language or direction about this type of situation for specific tributaries or reaches of streams.

The season of use for irrigation purposes is commonly specified in the decree, permit or licensed water right. Whenever the season of use is not specified in a decree, permit or licensed water right, the watermaster should generally look to the recommended irrigation seasons used by the department in connection with permits, licenses and adjudication director's reports (see Map 8 1). If the season of use specified by a decree, permit or licensed water right is shorter than the recommended irrigation season, the season of use may be extended to the recommended irrigation season if such an extension does not injure other water rights.

B. NATURAL FLOW

The term natural flow may be considered as the actual flow of the stream which does not include storage water released from a reservoir or water from other sources, such as groundwater pumped from a well and injected into the stream. Natural flow may include tributary streams, springs, return flows and underground flow or groundwater which seeps into the stream channel. Except under a valid storage right, natural flow may not be stored for later use. A natural flow right must either be beneficially used as provided in the water right or shall not be diverted from the public source of water. Diversions to rights for in-stream or off-stream storage facilities which can be filled within 24 hours with the maximum authorized rate are not considered to be a violation of this rule.

C. STORED WATER

Reservoirs are allowed to fill only once an irrigation season unless otherwise specified in the water right or determined by the Director.

Storage rights are generally filled according to priority. Where there are multiple reservoirs on one stream or river system, the senior storage rights should be satisfied ahead of junior storage rights, but it is often preferable to just allow the reservoirs to fill naturally and make adjustments later. Diversion of water to new storage during the storage period should not interfere with earlier priority natural flow rights.

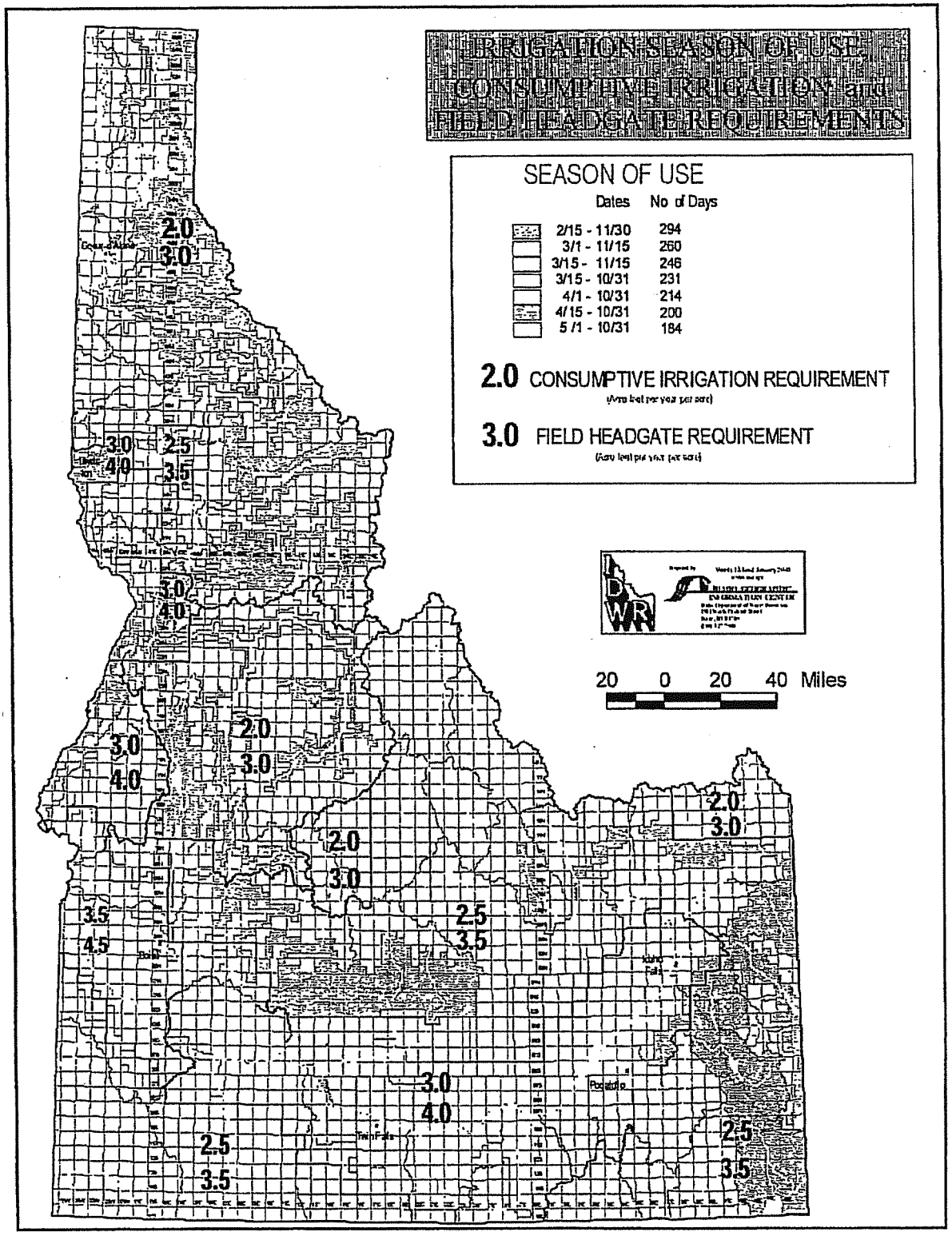
D. DETERMINATION OF NATURAL FLOW

To determine natural flow, the watermaster must measure the streamflow, and any diversions and reservoir storage changes. Data collection is essential to the proper delivery of water and may consume much of the time of the watermaster and assistants during the irrigation season.

After the natural flow has been determined, the watermaster must compute the allocation of flow to the respective users. In general, this is done by deducting the various amounts of the water rights calling for water (ranked from senior to junior) from the amount of the natural flow until the entire natural flow has been allotted. All diversions with a date of priority junior to the last water right for which water is available must be shut off or charged with the use of storage water if the user owns storage which is available. This procedure is also further discussed below.

After determination of the natural flow and the allocation of it to the users, the watermaster is authorized to adjust headgates to insure that the natural flow and stored water flows are delivered to those users entitled to its use. The above described procedure must be performed daily or as often as flows or diversion rates change.

Water districts in Idaho range in size from very small watersheds to major river basins. In some cases, the smaller districts may include a water producing area, such as a mountainous watershed, below which two or more canals divert the flow from the stream. If these diversions are near each other, such that they share essentially the same water supply, the district represents the simplest type of natural flow determination. Figure 8.1 illustrates a basin having one location for allocating the natural flow. In this case, the natural flow to be allocated is equal to the flow of the stream plus the sum of any diversions which may be located above the stream gage. Table 8.1 illustrates the method of computation of natural flow in this type of basin.



Map 8 1: Consumptive Irrigation Requirement, Field Headgate Requirement, and Season of Use.

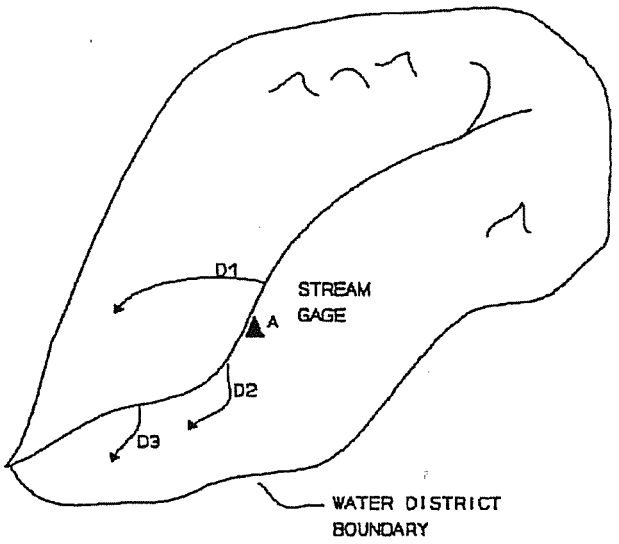


Figure 8 1: Water district having one location for natural flow allocation.

Date	D1 (cfs)	QA (cfs)	Natural flow at A (cfs)
May 13	10	12	22
May 14	12	11	23
May 15	18	10	28

Table 8 1: Computation of natural flow at one location,
[D1=diversion #1 and QA = discharge at Gage A]

The benefit of taking the approach shown in this simple example is that it establishes a record of natural flow or water supply available for all of the diversions. Comparing the natural flow with a list of ranked water rights will simplify distribution and priority cuts. While daily distribution in the above example might often be accomplished by trial and error or without stream gage A or determination of natural flow, the stream flow usually reaches a critical point which will require a stream measurement and computation of natural flow. If, in the above example, the stream became dry just below D2, and D3 is a senior right holder calling for water, then natural flow would represent the sum of D1 and D2. These latter junior right diversions then would have to be adjusted in order to satisfy D3's right. The temporary non-delivery of the senior right probably could be avoided if there were at least some periodic measurement and computation of natural flow.

A more complex basin might include diversions having differing water supplies. For example, diversions may be made from a stream above and below a significant tributary illustrated in Figure 8.2. Those which divert below the tributary have access to a larger supply of

water than the upper diversions. It is therefore necessary to compute the natural flow at two locations. Table 8.2 illustrates the natural flow determinations for this situation. Natural gains are computed for the reach to gage A as in the simpler system illustrated by Figure 8.1 and Table 8.1. Then natural gains (or losses) from A to B are computed by summing the outflows (flow at B plus the diversions from A to B.) The total flow at B is the sum of the natural flow at A plus the natural gain A to B (or loss, expressed as a negative.)

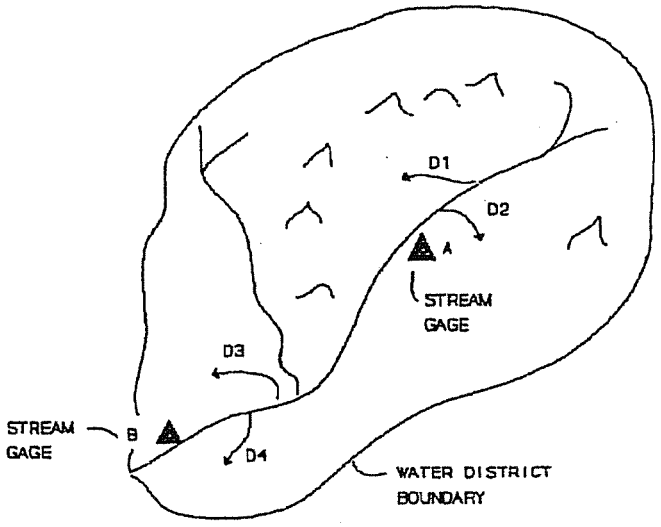


Figure 8 2: Water district having two locations for natural flow allocation.

1	2	3	4	5	6	7	8	9	10
Date	DI	D2	QA	Natural flow at A (2+3+4)	D3	D4	QB	Natural Gain A to B (6+7+8-4)	Natural Flow at B (5+9)
May 23	10	0	7	17	3	15	0	11	28
May 24	10	2	7	19	3	15	0	11	30
May 25	9	3	10	22	4	14	2	10	32

Table 8 2: Computation of natural flow at two locations.

Return flows may accrue to the stream from upstream diversions. In most cases, the return flow is considered part of the natural flow and is available to the downstream users. In the examples above, any return flows are automatically treated as natural flow because the computed gain does not distinguish between sources of water entering the channel.

For basins having reservoirs, the natural flow computations must take account of changes in storage. The usual way to accomplish this is to take the differences in reservoir contents on successive days and convert those differences to an average daily rate as follows:

$$\text{Storage change in cfs} = \frac{\text{contents on } 2^{nd} \text{ day} - \text{contents on } 1^{st} \text{ day}}{1.9835}$$

If this difference is positive (storage is increasing), it is added to the natural flow computed in the examples. If negative, it is subtracted. Gages or devices for measuring reservoir inflow and outflow should be read on a daily basis and compared with storage changes.

For large basins, the time required for flow to move through the system becomes important. The water supply available to a lower basin today may be affected by an upper basin diversion made on a previous day. Travel times, therefore, must be taken into account when determining natural flow or when allocating it. For example, if the travel time from A to B is one day, the computation lines could be offset one day between columns (5) and (6).

E. ALLOCATION OF NATURAL FLOW

When water supplies are inadequate to meet all needs in a basin, the watermaster must regulate diversions according to their respective rights.

In a water district having only one location for distribution of natural flow (see example in Figure 8.1), the allocation process is quite simple. After the natural flow has been determined (Table 8.1), and if it is insufficient to satisfy the diversion requests of all users to the extent of their rights, then the rights having the latest priority are cut or reduced. If stored water is being released from an upstream reservoir, diversions in excess of the natural flow entitlement are charged as stored water.

Table 8.3 illustrates the allocation computation for the example water district in Figure 8.2 when diversion requests exceed the available supply. Flows are those of May 23 from Table 8.2. In this situation, some of the natural flow in the upper reach must be passed downstream to supply a prior right in the lower reach. Water right priorities are to be supplied in the sequence shown in the "Priority Sequence" column of Table 8.3.

		Reach A			**Reach B**		
Canal	Priority Sequence	Water Right (cfs)	Actual Div. (cfs)	Remaining Natural Flow (cfs)	Water Right (cfs)	Actual Div. (cfs)	Remaining Natural Flow (cfs)
				17*			28*
D4	1				16	15	13
D1	2	10	10	7			3
D3	3				5	3	0**
D2	4	3	0				

* Flows for May 23 from Table 8.2

** Allocation ceases when the remaining natural flow in the lower reach is zero.

Table 8 3: Allocation of natural flow at two locations

Calculations in Table 8.3 begin with the natural flows which are entered from Table 8.2 at the tops of the remaining natural flow (RNF) columns. Diversions in the priority sequence are then subtracted from the preceding RNF and from the RNF of each downstream reach. Reach B RNF thus becomes 13 cfs (28 minus 15), then Reach A RNF becomes 7 (17 minus 10) and Reach B becomes 3 (13 minus 10.) When the RNF in Reach B becomes zero (after D3 has been subtracted), no additional allocation can take place.

By preparing Table 8.3, the watermaster knows that D2 should receive no water and that 7 cfs must be allowed to pass Gage A for downstream use. While this might have been determined by inspection or by a trial and error adjustment of diversion, the table provides a systematic method which will minimize errors and also establish a record of the decision process.

In this example, the diversions and flow at A and B in Table 8.2 conform with the allocation determined in Table 8.3. However, the natural flows are independent of diversions. The natural flows of 17 cfs at A and 28 cfs at B might have been determined from actual diversion rates occurring before allocation. Preparation of Table 8.3 would then tell the watermaster to reset the diversions within the requests as shown in Table 8.3.

The natural flow computation and allocation examples shown here represent basic water distribution scenarios. The principles and procedures shown above are applicable to more complex basins, including those basins having storage rights/reservoirs and water exchanges. Storage examples are omitted here because storage is usually very unique to each basin.

Both storage and natural flow can be allocated properly if all diversions including storage and natural flow diversions, storage inflow, outflow (or releases) and changes in storage contents are measured on a regular basis. In districts having multiple storage users with separate storage accounts, the water district should maintain a daily storage account balance for each storage user. Since some Idaho streams have reaches with significant losses, it may sometimes be appropriate to determine storage conveyance losses and assess such losses to the delivery of stored water. Losses may also need to be assessed to delivery of exchange water. Storage water, exchanges, and losing reaches are all very unique and site specific and should be addressed on a case by case basis. The Department can review and assist with distribution procedures involving storage and exchanges.

SECTION 9. – WATER DISTRICT FUNDS AND BUDGETS

A. ASSESSMENTS, COLLECTIONS AND DISBURSEMENTS

The water assessment collection procedure provides that after adopting a budget at an annual meeting and filing a certified copy of the budget with the Department and the County Auditor's office, the Auditor shall make a roll showing the amount to be collected from each user. The County Treasurer is then authorized to collect the assessments. Assessments may be collected with the regular county taxes, but are often collected separately, Water district assessments are to be paid by June 1 of each year. Assessments not paid by this date are subject

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EXHIBIT 9

Draft Transcript, "Deposition of Anthony Olenichak, February 9, 2012"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
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01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL

DISTRICT OF THE STATE OF IDAHO,

IN AND FOR THE COUNTY OF TWIN FALLS

COPY

EXHIBITS PROVIDED
ELECTRONICALLY

In Re: SRBA	)	Subcase Nos.
	)	1-2064, et al.
Case No. 39576	)	(American Falls subcases)
	)	Subcase Nos.
	)	1-2068, et al.
	)	(Palisades subcases)

DEPOSITION OF ANTHONY OLENICHAK

FEBRUARY 9, 2012

REPORTED BY:

JEFF LaMAR, C.S.R. No. 640

Notary Public

THE DEPOSITION OF ANTHONY OLENICHAK was taken on behalf of the Ground Water Districts and American Falls Spaceholders at the offices of Idaho Department of Water Resources Southern Regional Office, 1341 Fillmore Street, Suite 200, Twin Falls, Idaho, commencing at 10:01 a.m. on February 9, 2012, before Jeff LaMar, Certified Shorthand Reporter and Notary Public within and for the State of Idaho, in the above-entitled matter.

APPEARANCES:

For Ground Water Districts:
RACINE, OLSON, NYE, BUDGE & BAILEY, CHARTERED
BY MS. CANDICE McHUGH
101 South Capitol Boulevard, Suite 300
Boise, Idaho 83702

For American Falls Spaceholders:
RIGBY, ANDRUS & RIGBY, CHARTERED
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Rexburg, Idaho 83440

///
///
///

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APPEARANCES (Continued):

Also Present:
Ray Williams

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ANTHONY OLENICHAK,
first duly sworn to tell the truth relating to said cause, testified as follows:

EXAMINATION

BY MS. McHUGH:

Q. Good morning, Tony. I'm Candice McHugh, and I represent the Ground Water Districts in this matter.

Is it fine if I call you "Tony"?

A. Yes, please.

Q. Okay. Can you please state your name and spell your full name for the record.

A. Anthony Olenichak, A-n-t-h-o-n-y, O-l-e-n-i-c-h-a-k.

Q. You understand you're here today to talk about water-right claims in the SRBA for American Falls and Palisades Reservoir? Is that your understanding?

A. As it pertains to the refill issue?

Q. Yes.

A. Yes.

Q. Okay. And the water rights at issue specifically is water right 1-2064, and that's for American Falls.

Do you understand that?

Page 7

A. Yes.

Q. And 1-2068 for Palisades?

A. Yes.

MS. McHUGH: And I'll have you mark this, Jeff.

(Exhibit 1 marked.)

Q. (BY MS. McHUGH): I'm handing you what's been marked as Exhibit 1.

Have you seen this document before?

A. Yes.

Q. And can you tell me what it is.

A. It's the request for the deposition.

Q. And for which you're here today?

A. Yes.

Q. Okay. Have you had your deposition taken before?

A. Yes.

Q. And when was that?

A. I can't remember the exact dates, but I think I've had one each year for the past three years. And there was one back in 2005.

Q. Okay. And can you generally tell me what matters they were in.

A. The last one was over water right 1-6, the AFRD No. 2 right. One was concerning the Minidoka power rights. The other was over the high-water right

Page 8

issue. I can't remember what the fourth one was. The earliest one was the A & B/Falls Irrigation issue.

Q. And just so I can understand that, so the 1-6 AFRD 2 water right, I think I attended that deposition.

And was it taken by Tom Arkoosh?

A. Yes.

Q. Okay. On the Minidoka power rights, could you elaborate who took that deposition?

A. That was at the Valley Bank in Twin Falls, if I remember correctly.

Q. And do you recall --

A. I don't recall who it was that asked for the deposition.

Q. Do you remember who asked the questions?

A. The common group. Jim Tucker was there.

Q. Okay.

A. John Simpson.

Q. Was that in an SRBA matter? Do you know?

A. Yes, I believe so.

Q. Okay. And the high-water right deposition?

A. Yes. That took place in the Idaho Falls IDWR office.

Q. And if I'm remembering, was Randy Budge in attendance or --

Page 9

A. I think so.

Q. -- Rob Harris?

A. I can't remember if Rob was there or not.

Q. Okay. And then in 2005 the A & B and Falls Irrigation District matter, was that an SRBA matter?

A. No, it wasn't.

Q. Okay. I probably should have gone over the ground rules to begin with, but you understand you're under oath and that this transcript can be used in court?

A. Yes.

Q. And to answer the questions audibly so that the court reporter can record them?

A. Yes.

Q. And if you need a break, you can just ask me, and we can take a break.

Okay. When I refer to "the Director" today, I'll be referring to Interim Director Gary Spackman or his predecessors, but it means the Director of the Department of Water Resources.

A. Okay.

Q. Can I have a brief background of your education.

A. I have a bachelor of science degree in watershed science from Utah State University. I

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graduated in 1983.
Q. Have you had any subsequent training, educational training?
A. Not educational, no.
Q. Any training within IDWR?
A. Well, through my experience there's several miscellaneous trainings, but mostly it's through my experience dealing with water rights and hydrology.
Q. Okay. And what is your current position with IDWR?
A. Program manager for Water District No. 1.
Q. And since when have you held that position?
A. 2005. From 200- -- or I should say 1990 to 2005 I was a hydrologist for Water District 1. Prior to that from 1988 to 1990 I was a senior water right agent for the Department of Water Resources. From 19- -- 198- -- did I say 1988?
Q. Yeah.
A. From 1985 to 1988 I worked for the State of Montana Water Rights Bureau as a water rights specialist. From 1984 -- you want to go back?
Q. No, that's probably fine. Thank you.
A. Okay.
Q. Can you tell me, you're employed by Water District 1. Can you explain the relationships between

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Water District 1 and the Department of Water Resources, as you understand it.
A. Water District 1 has a Memorandum of Understanding with the Department of Water Resources. We share their vehicles, their office equipment. We are State employees. We get paid through their payroll system, participate in their benefits, retirement, health insurance.
We do that by collecting our assessments from the water users, the water district does, and then paying at least a portion of those assessments to the Department of Water Resources for the use of their equipment and also to reimburse our salaries.
Q. And the Attorney General's office represents Water District 1, or is your attorney for this deposition? Is that your understanding?
A. Yes.
Q. Does Water District 1 have any other attorneys that represent it? Do you know?
A. Water District 1 has attorneys that represent the Committee of Nine.
Q. In your current position as program manager, can you briefly explain what your responsibilities include.
A. My responsibilities are to see that the

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daily accounting of water delivery is done properly, that water measurements are – are taken in a timely manner and accurately.
So my responsibility extends to supervising three positions in the Idaho Falls office and the 12 hydrographer-engaged reader positions that are spread out over the district.
Q. What have you done to prepare for this deposition?
A. I read my previous depositions. That's the only preparation that I've done.
Q. Did you consult with any attorneys?
A. Yes. I -- Chris Bromley I met with briefly two days ago, and he had some questions concerning the refill issue.
Q. Did you review any documents besides your depositions?
A. Yes. I reviewed the -- I'm not sure whether you would call it an order or what type of document it was from Judge Wildman concerning the binding effect of the Eagle decree.
Q. Any other documents?
A. None that I can think of.
Q. Getting specifically to water right No. 1-2064 and 1-2068, what work have you been asked to

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do for those water rights?
A. Well, I've reviewed -- and I've explained how those water rights are delivered in the Water District 1 water right accounting. I've also reviewed how the language in the Eagle decree has been used in that delivery.
Q. Did you make the recommendations for those water rights?
A. No, I did not.
MS. McHUGH: Jeff, if I could have this document marked as No. 2 and this document marked as No. 3.
(Exhibits 2 and 3 marked.)
Q. (BY MS. McHUGH): I've handed you a document that's been marked as Exhibit No. 2.
Could you identify that document.
A. Exhibit No. 2 is the recommended water right from the Idaho Department of Water Resources for right No. 1-2064, which is the 1921 water right for American Falls Reservoir.
Q. Is it accurate to say that that's the Director's Report?
A. Yes.
Q. Were you involved in preparing any portion of this Director's Report?
A. No.

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Q. Are you aware of whether this recommendation in the Director's Report has been altered or amended since it was issued?
A. I'm not sure if it's been amended, but I know we were talking about separating out the portion of winter-water-savings water out of this right that's for the entire reservoir.
Q. And is that pursuant to a stipulation between the parties? Are you aware?
A. I am not.
Q. Okay. And can you identify what's been marked as Exhibit No. 3.
A. Exhibit No. 3 is the Department's recommendation for 1-2068 for Palisades Reservoir.
Q. Were you involved in preparing any portion of this Director's Report?
A. No.
Q. And do you know whether this recommendation has been altered or amended since it was issued?
A. I think this right also may have been amended to separate out the winter-water-savings water from the total quantity of the right.
Q. Before I go into more depth on those two water rights, I want you to keep those in mind when I ask you some questions about Water District 1

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operations. Now I want to talk to you a little bit about Water District 1 operation regarding the issue of refill.
Could you tell me what you understand "refill" to mean as it pertains to these two water rights.
A. Water District 1 accounts for the gains that accrue to this priority date up to the amount of the capacity of the right. Once that capacity is reached, it's common for the physical contents not to match the water that we've accrued on paper.
What that means is the storage that accrued to the right was used either by an irrigation canal downstream or the water was released for flood control or any other type of usage.
When surplus water comes into the reservoir after that time, that evacuated space can sometimes refill physically. That's my definition of the refill.
Q. I'm going to break down a few of the terms that you used. First of all, you said "the capacity of the right."
Can you explain to me what you mean by "the capacity of the right."
A. Well, the total amount of water we can store into the American Falls storage right is the

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1,672,590 acre-feet.
Q. And that refers on Exhibit 2 specifically to the quantity element?
A. Correct.
Q. And so the capacity of the water right for 1-2068 for Exhibit No. 3 would be 1.2 million acre-feet?
A. Correct.
Q. You also used the term "physical capacity."
Can you explain to me what you mean by "physical capacity" as it relates to the capacity on the water right.
A. Well, the active physical capacity should be equal to the capacity on the water right.
Q. Is it fair to say that the physical capacity is how big the reservoir is, how much water the reservoir will hold?
A. Yes.
Q. You also used the term "surplus water."
Could you explain to me what you meant by "surplus water."
A. After the water right has accrued its volume of storage, the physical contents sometimes are not the same as what we've accounted for on paper that's accrued to the right because of the operations

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undertaken by the Bureau of Reclamation, whether it be to release the water for irrigation needs or for flow augmentation or for flood control, whatever the purpose, that would cause the physical contents not to equal the amount that we've stored under the right.
Q. In other words, the physical contents would be less than the actual content as recorded under the right?
A. Or the same.
Q. So am I accurate in saying that what you understand refill to be in these cases is to refill the water right after there has been some releases from storage?
A. The water right would remain filled, regardless of whether or not we had refill.
Q. So you're using the term "refill" as a physical refill of the reservoir, and the water rights, the amount of water that is stored under the water right or accounted for for the water right doesn't change?
A. Correct.
Q. I also understand that "refill" can be used as to refill the storage account.
Could you explain to me what you understand that might mean if someone were to say that "Our

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storage account was refilled."
A. Yes. Common situation is that the irrigation season begins, we're -- let's assume that the reservoirs are full physically and we've also filled the water right on paper. There's some storage use by a canal that occurs. And so the reservoirs are physically drawn down because of that storage use.
And then we have a burst of runoff from snowmelt or rain that exceeds the demand, the irrigation demand. There's no water spilling out the end of the system, so physically the contents of the reservoir increase. That's an example of refill.
What that -- the effect of that is is that it allows us to cancel some of the previous storage that has -- storage usage that has occurred. In other words, we started with a full reservoir, there were some storage used, and then that physical space that was evacuated subsequently refilled, so we now have a full system again, which allows us to cancel the previous storage use.
Q. When does the cancelling of the previous storage use occur?
A. It occurs on the day of allocation, when the watermaster allocates the amount of storage or the amount of fill available to the spaceholders.

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Q. So when we were discussing a refill of a water right earlier -- and I understood your answer to be that the right would remain the same, even if the physical contents of the reservoir refilled -- explain to me how that is consistent with what you just told me about refilling a storage account.
A. We don't refill the storage account. We refill the reservoir physically. The storage account would -- would be 100 percent full under this assumption. And then space is physically evacuated and then subsequently refills. That's a physical change, but the amount accrued in the storage right doesn't change.
Q. If the storage water right was not 100 percent filled, could you explain what would happen if there was a surge of water prior to the day of allocation -- or after the day of allocation, what would happen to a storage account that was not 100 percent full?
A. The storage account that's not 100 percent full would then fill under priority. If natural flow was sufficient to fill that priority, then it would continue to accrue water under that storage account.
Q. And when would that occur?
A. It can occur any time during the season.

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Q. In the answer to one of my questions, you also said something about "the refill of the system."
Could you explain to me what you meant by that.
A. We generally look at the reservoir -- the reservoirs collectively as a system, because water that may accrue to a storage account such as American Falls might be physically held in Palisades.
The net system contents are -- would be equivalent to the refill, where the refill is occurring, whether it's credited towards storage that had previously been used out of American Falls or previously been used out of Palisades. The refill may not occur in the reservoir where the storage use came from.
Q. Could you list the reservoirs that are included in your term "system."
A. Yes. Jackson Lake, Palisades Reservoir, American Falls, Lake Walcott, Ririe, Henry's Lake, Island Park, Grassy Lake. I think that's all of them.
Q. Does Water District 1 recognize refill of storage water rights in priority?
A. No, it does not.
Q. Can you explain that.
A. Assuming the reservoir rights have filled

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to 100 percent and then some refill occurs, that refill does not occur in priority to the reservoirs. In other words, a reservoir -- let's say the most senior reservoir wouldn't have first right to refill.
Q. The senior reservoir would not have the first right to refill?
A. Correct.
Q. Okay. What reservoir is the senior reservoir?
A. I don't remember the priority dates of every reservoir exactly, but certainly Lake Walcott would be with their 1909, and then Jackson I believe has a 1906 water right for a portion of its storage. Those would be the senior reservoirs.
Q. And I know I'm belaboring the issue on refill, but now we've introduced that Water District 1 does not refill storage water rights in priority. And the explanation was that the senior reservoir would not have first right to.
Refill. And I apologize if you've already answered this question, but can you explain to me how does Water District 1 recognize refill.
A. Refill is not identified per individual reservoir. It's systemwide refill. I guess that's a better explanation as to why it's not done under

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priority. It's just surplus water that's physically stored in the reservoir system that wasn't assigned to a specific storage right.

Q. Can you look at Exhibit No. 2, which is the water right for American Falls Reservoir. And could you walk me through an example of where systemwide -- there would be refill and how you would treat this water right or how this water right would -- do you understand my question?

A. I think so.

Assuming this water right was filled on paper -- in other words, upstream from American Falls there was enough water, natural flow, available to fill the entire 1,672,590 acre-feet, and some of that water was used, that American Falls storage, there was some spaceholder in the system that diverted their storage, that would be subtracted from their allocation from this full storage account.

While that's happening, they're evacuating space. It may not be physically from American Falls Reservoir. It may be from some other reservoir. And then we have a burst of snowmelt or rain refills that space. It may not refill the space physically in American Falls; it could refill the space anywhere physically in the system, wherever that empty space

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could be. If there's sufficient refill to cancel out the storage use, then that refill, in a sense, is credited towards the spaceholder of American Falls.

Q. Towards the spaceholder of American Falls who already used their water?

A. Correct.

Q. And when that is credited to their storage account, that could occur before the day of allocation?

A. No. It generally happens on the day of allocation.

Q. On the day of allocation. And can you explain to me why Water District 1 allows for or accounts for the systemwide refill. Do you know the reason?

A. Yes. There is no injury to any other water user. Refill occurs when there's surplus water in the system in excess to the amount of the demand by water rights.

Q. Is there an interest in keeping the reservoirs as full as possible throughout the season?

A. Yes.

Q. And do you know why?

A. It maximizes the amount of water available above Milner Dam.

Q. And why is that important? Do you know?

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A. The water users in Water District 1 depend on the quantities above Milner Dam. If there weren't any shortages, there wouldn't be any need for the watermaster to curtail or regulate any water user. The more water you hold upstream, the less people get curtailed.

Q. I understand that refill can occur after there's been a burst of late spring runoff, for instance. I think that's what you've explained.

Can refill occur any time during the irrigation season?

A. Typically, it doesn't happen after the day of allocation until you get all the way towards the end of the season, usually in the month of October.

Q. And why is that?

A. At that time the irrigation demand greatly exceeds the amount of natural flow that's flowing down through the system, and there are rights generally senior to the reservoir rights.

Q. And when it occurs later in the season in October, can you explain that process.

A. Yes. At that point any new fill -- or I should say any additional reservoir fill that occurs in October isn't considered refill of the storage that had been used prior to that time, but it accounts as

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accrual towards the next irrigation season.

Q. Okay. If I understand your answer, what you're saying is when you answered earlier that there can be a cancelling of storage use prior to the day of allocation or on the day of allocation because there's been a physical refill of the reservoir, any cancellation of storage used from a storage account would not occur based on late-season refill or refill that occurs in October?

A. Correct.

Q. And why is that?

A. The irrigation season runs until October 31st. We get some new accrual in the reservoir accounts, both physically and on paper, in October because irrigation demand is decreased to a point where the natural flow coming into the system exceeds the irrigation demand and is captured in the reservoirs. And the storage practice was always to apply that accrual in October, one month prior to the start of the new irrigation season, to apply that new accrual towards the capture of storage and the storage rights, storage accounts for the following season.

Q. So to all the storage accounts and storage rights equally?

A. According to priority.

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Q. And how long has that been the practice? Do you know?
A. I -- I'm sure it's always been the practice since 1978 when computerized accounting was formalized. I think the practice also occurred prior to that time.
Q. And the practice of refilling a storage account on the day of allocation, do you know how long that practice has occurred?
A. Could you ask the question again?
Q. Yes. The refilling of a storage account on the day of allocation that we talked about a little while ago, I understood that the storage accounts could be refilled if there had been an evacuation prior to the day of allocation and then there had been like a late spring runoff.
How long has that practice occurred?
A. I think that's always been the practice.
MS. McHUGH: I'd like to mark this document, please.
(Exhibit 4 marked.)
Q. (BY MS. McHUGH): You've been handed a document marked Exhibit 4.
Have you seen this document before?
A. Yes, I have.
Q. Can you tell me what it is?

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A. I think it is a petition to the Court to make a judgment on three issues.
Q. And when did you see this document before?
A. Oh, I think it was a few weeks ago. Maybe as much as a month ago.
Q. Do you recognize this document as being the State of Idaho's Motion for Partial Summary Judgment?
A. Yes.
Q. And what's your understanding of who filed the document, on behalf of what party?
A. My understanding is Michael Orr filed it on behalf of the State of Idaho.
Q. Okay. And I'll have you turn to page 2 in that document. And if we could look at issue No. 3.
And just for completeness of the record, could you read into the record the entirety of issue No. 3.
A. "The following 'refill' remark should be included in the partial decrees for storage water rights Nos. 1-2064 (American Falls Reservoir) and 1-2068 (Palisades Reservoir) because it is necessary to define and/or efficiently administer the rights. This right is filled for a given irrigation season when the total quantity of water that has accumulated to storage under this right equals the decreed quantity.

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Additional water may be stored under this right but such additional storage is incidental and subordinate to all existing and future water rights."
Q. Thank you.
Have you seen the proposed remark in item No. 3 before?
A. Prior to the issuance of this request? No, I haven't.
Q. Okay. Did you help prepare this document?
A. I've talked to Michael Orr concerning the refill issue and how it's been accounted for in Water District 1.
Q. Okay. And on this remark, either in this document or in any other document, have you seen this remark before?
A. No.
Q. Did you help prepare this remark?
A. I helped prepare it in giving the background information as to how the water's been historically administered.
Q. So your understanding is that this remark came from the document itself, from the Attorney General's office in preparing the document?
A. Yes.
Q. Okay. Does this remark capture how refill

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has been done in Water District 1 under these two water rights?
A. Certainly since 1978. And prior to that there's been a few exceptions.
Q. Would the inclusion of this remark on water right 1-2064 or 1-2068 alter Water District 1 practices?
A. No, it wouldn't.
Q. How would this remark affect other water rights in Water District 1?
A. Well, it wouldn't have any effect, because we would continue the practice of how we've been filling the storage right.
Q. Can you explain why this remark would be -- do you think this remark would be helpful on water right 1-2064 and 1-2068?
A. Yes, I think it would.
Q. Can you explain.
A. There are some people that would argue that the refill should occur under priority, which in some cases would make the refill senior to existing rights. And that's the change of what we've done historically. This remark would help to clarify that issue.
Q. Under this remark, can you explain when refill would occur?

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A. Yes. As I've explained previously, refill occurs after the reservoir rights have accrued their volume limitation, but physically there's additional storage captured in the system that hasn't been assigned to any particular storage account.

Q. And I want to draw your attention specifically to the second sentence in this remark. And it reads, "Additional water may be stored under this right but such additional storage is incidental and subordinate to all existing and future water rights."

Can you explain to me your understanding of that sentence.

A. Yes. What that means is once the Water District 1 records show that the storage right has been full, that any additional water is allowed to be stored under this right. However, the storage of that water shall not come at the expense of any water right holder.

Q. Any current water right holder?

A. Any current or future.

Q. And is that consistent with how refill occurs currently in Water District 1?

A. Yes.

Q. Can you explain what the implication would

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be if the additional stored water would not be subordinate to future water uses.

A. There are several things that would change. I'm not sure I have a handle on everything that would occur.

The first thing you would have to do is identify which space from which reservoir under which priority is the evacuated space being filled under. I should say refilled under.

If you did that, then potentially we would be refilling the 1921 priority or the 1939 priority throughout the entire peek runoff period, which could prevent any water rights junior to those priorities from diverting water for as long as we're refilling previous evacuated space.

MS. McHUGH: That's all the questions I have, actually, at this time. I'm going to turn it over to Jerry to continue.

Or do we want to take a quick break?

MR. RIGBY: Let me just chew my lozenge. Sorry.

MS. McHUGH: Okay.

MR. RIGBY: Okay.

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EXAMINATION

BY MR. RIGBY:

Q. Tony my name is Jerry Rigby of Rigby, Anderson & Rigby in Rexburg. And my firm represents what is commonly known as the Upper Valley storage holders in this particular action, which is basically just, I guess, a few of the spaceholders that we represent. Because we represent so many, we've always classified ourselves as just naming a few as basically the typical spaceholders.

Do you understand that?

A. Yes.

Q. And I will tell you my purpose in deposing you today is to attempt to discover exactly how the refill works. And that's strictly my focus. Secondly, my focus is to determine what, if any, changes were to occur, the impact that would cause to my clients or even the seniors.

And generally speaking, my clients, for the record, are the juniors. Not in every case, but let's just assume that I'm, in essence, representing a junior spaceholder.

Is that okay?

A. Yes.

Q. Okay. So I just want to make certain you

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understood where I'm coming from, because we are obviously in discussions at the moment of attempting to find some language that will work. And in doing so, we need to totally understand how this actual refill has worked and how it would work if changes were made.

Is that clear?

A. Yes.

Q. Okay. So with that preface, then, let me go back over -- and Candice did a good job of, I think, addressing the particulars themselves. I want to go over some scenarios and some changes that perhaps might impact either seniors or juniors, and at least what your understanding would be if those changes occurred.

But before I do that, let me make certain to go back and address some of the actual mechanisms that you use now and how it really does occur under certain scenarios.

So with that, let's start with, as you indicated, my understanding is that the fill on paper is -- once that's done, your program or your computerized model that has run since 1978 is done; is that correct?

A. That's correct. After the storage rights have filled, the natural flow that's coming down through the system is not allocated to any of those

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priorities, because they've met their maximum volume accrual, and it would go to fill perhaps a junior priority after that point.

Q. And just to be certain, so for this particular record, although it's been discussed ad nauseam in other depositions as to the program itself, what are we talking about? What do you call the program, the storage program?

A. Well, it's the daily water right accounting program is one component.

Q. Okay.

A. And then the second component that the watermaster uses when he makes his allocation on the day of allocation is the storage report.

Q. Okay. So are those the programs when you say these are used to determine when the full allocation occurs?

A. Yes.

Q. Is there any other tweaking that is done by the watermaster?

A. When there's water being spilled past Milner Dam, the computerized water right accounting program doesn't know the reason as to why that water's being spilled past Milner Dam.

So there is some decision process by the

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watermaster that has to essentially be input into the water right accounting program so it knows whether that water was being spilled for flood control or whether it was being spilled for flow augmentation, Idaho Power rental, whatever the purpose may be.

Q. Flow augmentation for fish?

A. Yes. The computerized accounting, it just sees the storage going past Milner and doesn't understand, you know, what storage that should be charged to or which account.

Q. So is it fair to say that the tweaking that would occur manually would be the watermaster determining -- and we'll talk about how that determination is actually made in a moment, but determination of where that water came from, from whose account or for what purpose?

A. We usually don't identify, except for flood control, as to which storage account that it came from. But it does also play a role in determining at what point can we cancel irrigation storage that we -- was used upstream from Milner.

Q. Okay.

A. So those are the two things that I can think of.

Q. That's what I was just going to ask.

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Those are the two major things; right?

A. Yes.

Q. There may be others, but they're incidental or nominal?

A. Yes.

Q. Okay. So let's talk about, then, first of all flood control, because if we had a perfect system it would store during the season of storage, and once it's filled, then obviously any drawdowns we wouldn't even have to worry about this particular issue.

But because every single year is unique, then we have to deal with scenarios of flood control happening during the same time as storage, happening after the full storage, and even happening after the refill; correct?

A. Correct.

Q. So I'm going to ask a few scenarios on that, then. Suppose for a moment under the present situation or the present modeling that you run that on paper the system is full, but before the date of allocation there is flood control, which evacuates, as a result of certain reservoirs under the flood control rule curves.

And those particular reservoirs are generally which reservoirs?

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A. Jackson and Palisades are typically the ones that get drawn down for flood control.

Q. Correct. And how does that impact -- I know I'm getting off the question. But how does that impact American Falls, then, by their evacuation of flood control?

A. It shouldn't affect American Falls at all.

Q. Because it's a pass-through?

A. Well, not that it's a pass-through. But any reduction to the allocation due to flood control would not be deducted from the American Falls allocation. It would only be deducted from Jackson and Palisades.

Q. So American Falls still could be filled on paper, but not physically filled, and the evacuation of those two storages could actually be captured in American Falls; is that correct?

A. That's correct.

Q. Okay. So now, that evacuation occurs and it's missed the mark. By that I'm saying by missing the mark is that the anticipated runoff doesn't quite refill the evacuation.

Isn't it the intent of the evacuation theoretically to still end up with a full reservoir, just not the excess?

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A. Yes.
Q. So it doesn't miss -- under this scenario -- and isn't it true that that happens quite often because it's impossible to make a perfect calculation?
A. I don't know what the statistics are, but yes, it's common to refill the evacuated flood-control space.
Q. But does it always get filled?
A. No. There are some years where the evacuated space does not get filled if it were spilled past Milner.
Q. Okay. So now assuming that to be the case, that scenario, how do you make an accounting for that, as far as the evacuation is concerned, because your model itself said the system's full; correct?
A. Correct.
Q. And now the system isn't physically filled. Who gets the deduction, if you will? From whose water right does that come?
A. If we never spilled any water past Milner Dam, the physical contents in the system would be equal to the physical accrual in our accounting. The problem occurs is when storage that was credited towards the storage account on the water right accounting flows

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past Milner.
In the case of flood control, when it comes to the day of allocation, we look at the physical contents, compare that to the amount that was accrued on paper, and the physical contents are less, then we go to the Bureau of Reclamation and ask them to identify which reservoirs that the water that spilled past Milner came from.
Generally, in a flood control situation, it's 75 percent of the shortage goes to Palisades, 25 percent goes to Jackson, because I believe that's the way it's written into the contracts or that's the Bureau of Reclamation's policy for flood control.
Q. And you would need to do that any year that it doesn't physically refill; is that correct?
A. That's correct.
Q. And you've done that in the past?
A. Yes.
Q. So now, with that scenario, is it fair to say that the system could be full in the end on date of allocation with the deductions made for Jackson and Palisades, therefore they wouldn't be full?
A. I don't understand your question.
Q. Okay. Physical fill versus fill on paper. We've already said that even under the present

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accounting that the system is full, and so therefore your accounting models are done. Now, because of the evacuation, even whatever that comes out, if it actually spills past Milner, then we are actually less in the system, and you're telling me you then contact BOR to determine from whose space that comes, and assuming it to be typical, 75 percent from Palisades and 25 percent from Jackson, then in the end before any diversions or other diversions -- and I'm only limiting this to the evacuation for flood control, then they would be that much less in their actual physical fill; correct?
A. When we'd go to make the storage allocations to the spaceholders, the Palisades spaceholders would share in the shortage. That's 75 percent of that shortage.
Q. And when does that actual storage allocation occur, again?
A. There are three things that have to happen before the day of allocation occurs: One, we have to stop spilling water past Milner. Two, we have to reach our maximum day of storage accrual on paper; in other words, we no longer -- we drop below the point below the most senior priority of unfilled space. And three, we've reached our maximum physical reservoir contents

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in the system.
Once we're sure all three things -- all three of those things have happened, at that point we can make our day of allocation because we know at that point what our shortage is between the amount of accrual we have on paper to the storage accounts and the amount that we have physically in the system above Milner.
Q. Okay. So that storage allocation, then, conceivably could end up with all other reservoirs filled except for Jackson and Palisades?
A. Correct.
Q. Okay. And therefore that's -- and that's the current system; is that correct?
A. Yes.
Q. Again, I'm going to ask this several times: But the proposed refill remark given by or proposed by the State of Idaho, would that be inconsistent with that practice?
A. No, it wouldn't.
Q. Okay. Would it give you any additional help in that practice?
A. Yes, it would. It would get rid of the argument from others that the refill should occur under priority.

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Q. Okay. Now, let's continue with that scenario, because we haven't talked about now what happens afterwards when you get a hot, early summer and you get the fresh shed coming down. Now that starts to refill.

Where is it refilling, as far as what you do presently?

A. It would be refilling in the system. I assume that the scenario you're describing is we initially think we're past the point of allocation, but for some unexpected reason we get additional rain, the diversions all shut off, we store some water physically in the system, that's refill that's occurred in the system, and it's credited towards either the spaceholders of unfilled rights or it's credited towards storage use that has occurred up to that point in time.

Q. Okay. Is there any priority between those two?

A. No. Only the unfilled rights would accrue under priority. But assuming all the storage rights had been filled, then the watermaster sits down and decides whether that additional refill should be credited towards cancelling previous irrigation storage used by diversions or if it should be used by water

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spilled for flow augmentation -- I shouldn't use the word "spill." I should say delivered for flow augmentation below Milner, or delivered as storage rental from Idaho Power.

Q. But how is that actually done? By that I'm saying you said the watermaster makes that determination.

Is there any priority given to any of those three? And you've just given three examples there.

A. I don't think there's any written policy as to what the priority of those different examples would be.

Q. In actuality, does he give any priority?

A. Probably the best thing to do is for me to use an example. I think it was in 2010, we thought we were past the point of any additional capture of surplus water in the reservoir system. We were prepared to make our day of allocation.

The Bureau started running water for flow augmentation. They had some quantity available from the rental pool. Let's say it was 150,000 acre-feet. They started running that volume of water.

And then either towards the end of them running that volume of water or after they had finished, we got this unexpected runoff and surplus to

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the water rights that were currently diverting water, we gained some additional storage or refill in the system, and so that enabled us to write off or cancel all the storage used by irrigation diversions and all but a small quantity of the water that had been released for flow augmentation.

So in effect, the watermaster made the decision then to cancel the irrigation storage used ahead of the flow augmentation. And the Bureau was okay with that decision, and that's what was done in 2010. But I suppose --

Q. But that's by policy, then?

A. Well, that was the watermaster and the Bureau of Reclamation getting together and agreeing to that procedure. But I suppose it could have been done differently.

Q. Okay. So let's ask that same question as to instead of BOR's diversions or releases, let's use that same example for the scenario we use with Jackson and Palisades, so flood control versus actual irrigation diversions. Now you get that additional fresh shed.

Does it go back in equally, priority with flood control first, or priority with irrigation? Or is there even a policy on that?

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A. Well, there isn't a policy. The refill would occur after some storage usage.

Q. That's my scenario, that you've used some storage for irrigation and you've also had some flood control diversion or releases. So you're literally down on two different accounts.

Now you have an additional fresh shed come in that allows the system to store water while all other water rights are being filled, after all other water rights are being filled, the question is, is there a policy or is there anything that would sort those by priority, or is it just fill them all proportionately? Or do you know?

A. Well, it's really difficult because there's so many different scenarios. What it comes down to is when we get to the day of allocation, we look at the balance between what storage has accrued on paper, and we allocate to that first.

If there's additional water physically in the system, at that point then you make your decision as to which storage use you want to cancel.

Q. But again, I'm trying to get to the decision. If you don't know, I understand. I'm just asking you, you just said you make your decision. I'm trying to get to how that decision is made.

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A. Yeah, I -- I don't know what scenarios could possibly happen. The ones in the past I understand prior to flow augmentation it was a pretty simple process. We would just simply cancel the storage usage, wherever it may be. We didn't have to decide whether it was flow augmentation, storage diversion, through canals.

Q. Flood control?

A. Well, with flood control, the only time we have to deduct for flood control is when the water is going out past the system. At that point we'd be spilling water past Milner. And so any irrigation diversion that was diverting water at that time while we were spilling, we automatically cancel that.

If you carry that through, you can say by the cancelling of that it actually increases the burden of refilling the flood-control space, but that's the way it's worked.

Q. And again, just for clarity in the record, flood control in those reservoirs are pursuant to their contracts, is that not?

A. That's correct.

Q. So in essence, it comes with the water right? I mean you could say priority dates, flood-control curves, that all comes with each

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particular contract; is that correct?

A. I think so. The contracts I've seen it's written in there that the Bureau would try to maximize the storage captured in the reservoirs. However, because of flood control or whatever operations they have, if that causes a shortage, then the spaceholders share in that shortage.

Q. Okay. Now, I don't want to belabor it, and I just have one more line of questions on this one and then I'll move off of it.

The actual refilling, if you will, recapturing in the system, is it -- and I used the word even before when I had discussions with you -- share and share alike? Is it based at all upon the source, for example, American Falls perhaps has a different source of recapturing some of the fresh shed versus some of the other reservoirs, such as Ririe, that has a very, you know, small area for a source? Or do you just put it all on paper and then it goes equally out to all the space users pursuant to their percentages? Because physically it's going to be in a different location, as you capture it.

A. Yes. Again, because water is held in different reservoirs, we go back to the day of allocation. When we know how much storage is filled on

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paper, accrued on paper according to the water rights, we know how much water is physically in the system, if there's a difference, if there's a shortage of water physically in the system, we try to identify what was the cause of that shortage.

If it was flood control -- generally it's Jackson and Palisades -- that shortage would be shared by all spaceholders in Palisades. The way it's done in the water right accounting and in the allocation is that let's say due to flood control, even though that the Palisades storage right filled to 100 percent on paper, because of the evacuation of flood-control space that didn't refill, let's say the -- we were able to allocate 95 percent to Palisades spaceholders, then each Palisades spaceholder gets allocated 95 percent. Doesn't matter how much water they had carried over from the previous year.

We've had a situation in one year where someone carried over their full allocation in Palisades from the previous year and were actually allocated less water the following year because of a flood-control operation that didn't refill completely.

Q. Okay. So now moving off then of this line of questioning into if a change occurred, especially the issue of priority given on the refill, because your

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accounting system right now does not address the evacuation, either for flood control, irrigation, or fish flow augmentation, then if the priority system continued and always was in effect, assume for a moment the scenario that a flood control occurred prior to the actual fill on paper -- so in other words, your model is still up and running -- and your model is now tweaked to say that it would have filled and your model would have been done, but because of flood control it hasn't filled, and therefore the priority date continues. And let's say that as a result of an error in calculation the evacuation was such that there never is a refill of that space.

What would that do to the junior users and their storage rights that would otherwise have occurred under the present situation? Is that clear enough?

A. Yes. If we identified the storage that was spilled out the end of the system and refilled that under priority, and in the situation you described is they've missed --

Q. Missed the mark.

A. -- the amount that they thought they could refill.

So whatever that time period was between the time that they cease -- or I should say they were

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evacuating the space up until the time you reach your maximum accrual, the priority date that we were delivering would never jump above that priority date for the space we were refilling.

Q. I.e., a 1921?

A. 1921.

So potentially if you were dumping water out of American Falls Reservoir for whatever reason and we were to refill that under the 1921 priority, you could get yourself into a situation where if you knew that we had a well above average snowpack and you wouldn't have to refill American Falls Reservoir until June, they could wait all the way until the month of June to fill that.

And the net effect of that is we would only be delivering the 1921 priority during the peak runoff in a much -- much above average water year. During that time period they were refilling the reservoir in June.

Q. And so therefore, the obvious question for the juniors is, is that a substantial impact to them, or could it be?

A. Well, if you had a right that was junior to 1921 and where historically you had diverted water in June during the peak runoff, if we changed the way we

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did things and that situation occurred, then those junior rights would be curtailed until the American Falls Reservoir refilled completely under their priority.

Q. And even if there was the snowpack that substantiated the original evacuation for flood control, even if it was there and it came off so late, they would not be able to have diverted stored water until the 1921 was completely filled again; is that correct?

A. Well, they wouldn't be able to divert natural flow under their junior priority --

Q. I'm sorry.

A. -- until American Falls Reservoir was filled.

Q. That's right. So in addressing the issue of priority on the second fill, do you know of any scenario where a priority system would not -- I mean would not injure the junior spaceholders from the way it's being conducted pursuant to your modeling?

A. Can you ask the question again?

Q. Do you know of any way a priority system that would continue or be used in a refill that would not impact the juniors substantially?

A. Yes. In the situation -- let's assume that

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we did allow refill under priority for water that was dumped for whatever reason, flood control, whatever reason, and the reservoir system did refill completely 100 percent, anyone that -- any junior user that used storage instead of natural flow that otherwise would have been available to them would have gotten cancelled under that situation.

Q. Okay. So that's the case when it fills completely.

But if it does not fill completely, would they be impacted differently and substantially differently than they are now?

A. Yes.

Q. Now, you indicated that although you didn't write the actual proposed remark that you at least were interviewed or discussed this with the State of Idaho.

Is there anything in here that doesn't go far enough to address your particular concerns, like you say you've heard comments of others that said they would rather have the priority on the refill and this would help to keep the present system in place, is there anything in here that does not go far enough to protect your present system, or do you have questions in your present system that need to be answered still and perhaps a remark could help there?

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A. None that I can think of. I -- I don't think I can improve this remark at all.

Q. And as asked by her, but I'll ask again, is this necessary?

MR. BROMLEY: Excuse me, Tony, just for clarification, did you say "approve" or "improve"?

THE WITNESS: "Improve."

MR. BROMLEY: Thank you.

MR. RIGBY: Thanks.

Q. And therefore, again, the question is, do you think this is necessary and should be included within the remarks and the water right of both the water right No. 2064 and 2068?

A. Well, I don't think it's necessary, because that's the way we've always done it under the existing right, even without this remark.

Q. But if that present system that you've been administering and managing is challenged, would this help you in continuing to manage it the way you're doing it now?

A. Yes.

Q. Okay. I just need a minute.

MS. McHUGH: I was just going to say we need a break.

Q. (BY MR. RIGBY): If the language were taken

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out at the very end of the remark, the proposed remark, quote, "and future water rights," end quote, what would that do to change your present system? By that I'm saying what would that do to any future water rights, in your opinion?

A. Well, as long as the reservoir system wasn't full, there would be the potential there that we would always be filling the unfilled reservoir storage rights ahead of any junior water rights.

Q. And as far as the storage itself is concerned, you indicated that for the most part most of the time the storage doesn't occur after the date of allocation until the October season. Why? Because of the high demand. But isn't that the real issue: It's because of the high demand. Not because they couldn't fill, but it's because they generally don't fill because of the high demand for natural flow that has priority?

A. That's correct. Even in the driest of years, if the canals didn't divert any water through July, we could still fill the reservoir system.

MR. RIGBY: Okay. I don't think I have any further questions.

MS. McHUGH: Can we take a break?

MR. ORR: It's okay with me.

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MR. BROMLEY: It's 11:15.

MS. McHUGH: Keep going?

MR. BROMLEY: Tony, is that okay?

THE WITNESS: Yeah.

MS. McHUGH: That's fine.

MR. ORR: I just have some clarification questions to ask. I didn't want to open up anything new here.

EXAMINATION

BY MR. ORR:

Q. So, Tony, just for the record, I'll state it. I'm Michael Orr, the Attorney General's office. I represent the State of Idaho in this subcase.

And looking at my notes here going back over some of your answers, I believe you were asked if the Attorney General represented you in this deposition and in this matter. And I just want to clarify a point there that I represent the State.

Do you understand I do not represent you or Water District 1 in this matter; correct?

A. Yes.

Q. A little earlier I believe you said, "When surplus water comes into the reservoir the evacuated space can sometimes refill physically. That's my

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definition of refill."

So if I understand you correctly, when you use the term "refill" you're talking about physically refilling reservoir space?

A. Yes.

Q. And then also in response to some earlier questions, I believe you referred to the "capacity," quote, of the water right. So what I'd like you to do is look at Exhibits 2 and 3. I believe those are recommended partial decrees for the two water rights at issue here. I don't see an entry on these water rights for capacity.

Can you clarify for me what you're talking about when you use the term "capacity."

A. Well, rather than use the term "capacity," I should have said "quantity." But the quantity is generally the active capacity of the reservoir.

Q. So when you referred to the capacity of the water right earlier, what you really meant was the quantity element of the water right?

A. Correct.

Q. And with that answer you just gave me, would that also apply to your references to the volume or maximum volume of a water right? When you made reference to the maximum volume of these water rights,

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were you referring to the quantity element of these water rights?

A. Yes.

Q. One of the questions asked you was, quote, "Does Water District 1 recognize refill of storage water rights in priority?"

And your answer to that, I believe, per my notes was "No, it does not."

So do I understand that to mean that you do not allow reservoirs to refill ahead of the first fill of junior water rights? If you don't understand how I put it, I'll try it again.

A. Please.

Q. Okay. In Water District 1 you say you do not recognize refill of storage water rights in priority.

So if a storage water right has filled, does Water District 1 allow any further accumulation under that right before the fill of junior water rights?

A. No.

Q. Another point of clarification. A couple times earlier you referred to the, quote, "senior reservoir," unquote.

My understanding of seniority is that it

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applies to the water right, and granted water rights often identify reservoirs. But when you refer to senior reservoir, did you actually mean the reservoir had a senior water right?

A. Yes.

Q. There was some discussion of your familiarity with the remark that is identified in Exhibit 1, the Notice of Deposition, and in Exhibit 4, State's Motion for Partial Summary Judgment, the refill remark.

Do you recall speaking to me regarding what might be an appropriate refill remark I believe several months ago? I believe we had some telephone calls.

A. Yes.

Q. And do you recall me proposing language to you for a refill remark and asking you whether it would be consistent with how the system is currently administered and your understanding of the storage water rights?

A. Yes.

Q. And this remark in Exhibit 1 and Exhibit 4, does that appear to you to be the same remark, the same language, based on your memory, that we discussed in those telephone calls?

A. Yes. I can't remember if it was word for

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word, but yes.

Q. In response to one question I believe you said there are some people that would argue that refill should occur under priority, which in some cases would make the refill seem to existing rights.

Given that, if this remark in Exhibit 1 and Exhibit 4 were included on the storage water rights, would that remark facilitate administration for purposes of resolving the argument some people had that refill should occur under priority?

A. Yes.

Q. You also referred to spills past Milner Dam and that the computerized water right accounting program doesn't know the reason why that water is being spilled past Milner.

Why is that important or why is the fact that the computer program doesn't know why it's spilling past Milner important?

A. Well, I don't think it's important to the accounting program itself. It's important to the administration and the ultimate allocation of how much water is allocated to the storage rights and how much water is cancelled by the storage usage that was occurring during the time that storage is passing Milner.

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Q. So would I be correct in saying that the reason it's important that the program doesn't know why the water is being spilled past Milner Dam, what that means is that the program doesn't allocate spills to any given account or right --

A. That's --

Q. -- the watermaster has to do that himself?

A. Yes.

Q. Okay. Now, Tony, my understanding is -- going back to that same question -- the ultimate reason that's important is that Water District 1 strives to or has to account for all water in the system as either natural flow or storage; is that correct?

A. Yes.

Q. I believe Mr. Rigby asked you that in the scenario where all storage water rights had been filled and you have refill in the reservoir system due to some evacuation, I believe he asked you how does the watermaster determine whether the cancelling should be allocated to irrigation use or flow augmentation or whatever.

And in that discussion Mr. Rigby asked is there any priority given to those three, and the three examples you've just given me, referring to flow augmentation, prior irrigation use, et cetera. The use

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of the word "priority" in that sense I understood to mean preference or basis for a decision, not a priority date.

Do you recall that discussion? Can you enlighten me any on that?

A. Yes. It's -- I understood the question as being the sequence at which we distribute the refill.

Q. In other words, the criteria for that distribution?

A. Yes.

Q. But not a reference to the priority date element of a water right?

A. Yes.

Q. And there was another point that I think Mr. Bromley clarified, but I just want to touch on it again. My notes say that at one point, "I don't think I can approve this remark at all," that you made that statement in regards to the remark in Exhibit 1 and Exhibit 4.

So I'll just ask you, can you approve of the remark proposed in Exhibit 1 and Exhibit 4, the refill remark?

A. Yes, I think I -- if someone misunderstood, I said -- used the word "improve," not "approve." But yes, I would approve the remarks.

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Q. Sure. And I understand that. It's just an important point. I want to make sure the record's clear on that.

And I believe you also said that you don't think this remark is necessary in the water rights, but then Mr. Rigby asked you if the present system management and administration is challenged, would this remark help you in continuing to manage it the way you do now. And I believe you answered yes.

The question I had was, although you don't think this remark is necessary in one sense to allow you to continue past administration, what is your understanding of the legal authority for storing water when the storage rights had already been filled previously? And I'll try to rephrase that question if it came out funny.

A. Yes. And that's probably another reason for the remark that I haven't discussed in the other questioning is that there are some people that believe that once we have filled the storage right on paper that perhaps the reservoirs above Milner don't have a right to capture this surplus storage or refill or whatever words that you tack onto it.

So that would be the other purpose of this remark, to clarify that we would have the right to

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store water in addition to the amount that we previously stored.

Q. I believe Mr. Rigby asked you that if the remark language that was proposed here in Exhibit 1 and Exhibit 4, if the second sentence was taken out, the sentence that says, "Additional water may be stored under this right, but such additional storage is incidental and subordinate to existing and future water rights," if that sentence was taken out, I believe Mr. Rigby asked you, "What would that do to change your present system?"

Now, my notes say that your answer to that was, "As long as the reservoir system wasn't full, there would be the potential that we'd always be filling the unfilled reservoir storage rights ahead of any junior water rights."

Now, just to be clear on this, a senior reservoir storage right should be filled ahead of the junior water right, should it not?

A. Yes.

Q. So if we took this second sentence out, as Mr. Rigby postulated, would I be correct in thinking that what would be the potential was that you would be refilling the reservoir or the storage rights ahead of junior water rights rather than filling?

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A. Yes.

MR. ORR: That's all I have at the moment. Thank you.

MS. McHUGH: I do have some questions, and I don't know if it makes sense for me to do it because I can imagine me getting different things than maybe you would want, and have those of us that are on board with the condition go first and you go second, or I can wait until the very end. It doesn't matter.

MR. SIMPSON: So I'm not on board with the condition; is that what you're saying?

MS. McHUGH: Well, anyway, there you go. Those of us that called for the deposition today and the person on there. So I guess what I'm asking is --

MR. SIMPSON: Sure, if you'd like to go again, that's fine.

MS. McHUGH: I just had a couple.

FURTHER EXAMINATION

BY MS. McHUGH:

Q. Tony, this is Candice again. And I think after hearing the different questions, I think I have four scenarios that I need to clarify in order to understand the refill. And hopefully this will help clarify my understanding.

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And the first scenario is when we refill after the day of allocation and there had not been a full system prior to the day of allocation, so some water rights had gone unfilled.

Do you understand that scenario so far? Are you following my example?

A. I might stop you before you go any further because --

Q. Okay.

A. -- there wouldn't be any refill after the day of allocation because the definition of the "day of allocation" is that it happens after all refill has already happened.

Q. Good point of clarification. So I understood that there were times when there could be refill of the reservoir physically after the day of allocation had occurred.

A. Well, when that's happened, we've -- we've underestimated how much water was going to come down. And the decision we made, we thought that it was the day of allocation, but it turned out that it was some point later in time after an additional amount of water came down through the system.

Q. Okay. That's helpful. Thank you.

And is it fair to say that the only refill

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after the day of allocation would be in late October?
A. No. I wouldn't characterize it as refill in October. I would characterize it as new fill for the next irrigation season.
MS. McHUGH: Okay. That's the clarification I wanted. Thank you.
MR. RIGBY: John, do you want to come up here?
MR. SIMPSON: No. I think I'm okay from way back here. That way I won't impart the cold that I got from someone.

EXAMINATION

BY MR. SIMPSON:
Q. Good morning, Tony. My name is John Simpson, and I represent a number of entities which have, as you know, American Falls space, Palisades space, and Jackson space. So I'll try to be brief, but I don't know if I can after what I'm enduring.
You made a comment or testified that generally the intent is to maximize the amount of water above Milner to make it available for the water users within Water District 1.
Do you recall that comment? Is that a fair statement of your testimony?
A. Yes.

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Q. And likewise, would it be then the intent of the water district to maximize the amount of storage that occurs within the reservoirs in any one season and in order to make that available to the spaceholders?
A. Could you repeat that question?
Q. Likewise, in continuing your statement regarding maximizing the amount of water available for the water users above Milner, is it also the intent to maximize the amount of storage that is retained in the reservoirs above Milner in any one irrigation season?
A. Yeah, that's not Water District 1's goal. I always assumed that was the Bureau of Reclamation's goal.
Q. Okay. And so Water District 1's goal is to then what, with respect to the storing of water within the reservoirs?
A. Yes. We're responsible for accounting for the accrual into those reservoirs.
Q. Okay. And so the more water we can store in the reservoirs above Milner, then the more water we have available for the spaceholders; correct?
A. Correct.
Q. And would it be fair to say that in your view that's one reason that refill needs to be recognized?

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A. Yes, that's a benefit to the water users above Milner Dam.
Q. And so if water is -- we've used the concept of evacuating space, and you may not have identified the different types of evacuation that have occurred and distinguished between those. And I think we've talked about flood control and we've talked about irrigation use and we've talked about water that's delivered for flow augmentation. And I guess in addition we've talked about water that's rented for other uses below Milner as well.
Are there any other uses of water that would be included in your definition of "evacuation of space"?
A. For the release of water past Milner, I think those are the only reasons I can think of.
Q. Okay. And so if water's released for flood control, would it be fair to say that that water was not available to the spaceholder?
A. No, it's available to the spaceholder until that water passes Milner Dam.
Q. So it's available to them as storage or as natural flow?
A. As storage.
Q. And so if that water is released at

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American Falls, would it be available to a spaceholder above American Falls?
A. As long as it doesn't pass Milner Dam, yes.
Q. So they could call for it as it's being released out of American Falls? Or I guess are you describing the occurrence where if a diversion above American Falls needed water, even though there was a flood-control release occurring, they could call for that water?
A. Yes.
Q. Okay. And it would be delivered to them in the form of storage?
A. Well, it depends on the water right of the person calling for the water. If they were in priority, it would be natural flow. If they were out of priority, then it would be storage water.
Q. Okay. And so if in the event that there wasn't demand for water at the time of the flood control event, then it wouldn't be charged as natural flow to anyone because they didn't call for it, but it would still be charged as storage to certain accounts because of it being called storage and allocated storage?
A. And what's your question?
Q. Is that right?

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A. Yes. Under the assumption that you don't have any irrigation diversions going on and there's natural flow coming down the system and there's no release past Milner, all of that water would be accrued to an unfilled storage account.

Q. Okay. And at the time that flood control event occurs, you have no way of knowing what account it's being charged to because the date of allocation hasn't occurred?

A. That's correct.

Q. And so likewise, if there's a diversion above Milner, they don't know if at that particular point in time of a flood-control release, they don't know if that's their water that's being charged to them that's being released or not?

A. That's correct.

Q. So with respect to after a flood-control event has occurred, then there's space available to receive additional water for storage; correct?

A. Only if the water left the system.

Q. If it wasn't stored in a lower reservoir from which it was released?

A. Correct.

Q. Okay. And if it left the system, then there would be space available; correct?

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A. Correct.

Q. And if it left the system, then under what priority would that space refill?

A. It doesn't refill under a priority. What it does is that it reduces the difference between the paper storage that was stored into the storage accounts and the physical storage in the system at the time.

Q. Understand. Are there any conditions to that water then being -- then additional water being stored in the space that was previously evacuated?

A. No.

Q. So if the water's in the river, it can be stored?

A. Well, we allocate to whichever water rights are diverting water. And if the natural-flow supply exceeds the amount of demand by the water rights, the net effect is the physical storage in the reservoir increases.

Q. And is that a written policy that the water district has?

A. No. It's a physical occurrence. It's just -- it's what happens. You receive additional storage, but under the scenario where all the storage accounts have been filled, there's nowhere for that additional storage to have accrued to any storage account. It simply offsets the amount that has been spilled out the end of the system.

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Q. I understand. Again, when you say "accrual" in that answer, you're talking about paper accrual?

A. Correct.

Q. Okay. Does the water district have a manual or any written policy on how water is accounted for or how refill occurs?

A. There's the FORTRAN code in the accounting program itself. And there are different various memos, manuals that have been written over time. But I don't believe there's a one manual that describes every policy and procedure contained in the water right accounting program.

Q. Okay. And those manuals or procedures that you just described, do you have copies of those?

A. Most of those were compiled by Bob Sutter, who was the main author of the computerized accounting program. And I have some of those. I'm not sure if I have all of them.

Q. If you didn't have copies of all those, who would?

A. They would be in the Department of Water Resources stored in the -- probably the hydrology section in the State office in Boise.

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MR. SIMPSON: Chris, do you have copies of those, or do you have that storage box?

MR. BROMLEY: Storage in storage box?

MR. SIMPSON: Yeah. What Tony's describing, do you have those?

MR. BROMLEY: John, I don't know. And Tony wasn't asked to bring documents.

MR. SIMPSON: I know. I understand.

MR. BROMLEY: John, I haven't --

MR. SIMPSON: But you can make those available if we requested, though?

MR. BROMLEY: If you're interested, John, we can certainly look around and see what we got.

Q. (BY MR. SIMPSON): And otherwise, Tony, you do have some of those at your office in Idaho Falls?

A. Yes.

Q. Okay. Tony, with respect to flood control, you made a couple statements that flood control typically occurs at Palisades and Jackson; correct?

A. Correct.

Q. Under those priorities; correct?

A. I don't understand the question.

Q. Well, those reservoirs have a priority for storage; correct?

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A. Yes.
Q. Okay. And flood control is authorized at Palisades; correct?
A. I think flood control is a requirement that the Bureau of Reclamation has.
Q. Okay. At Palisades?
A. At Palisades.
Q. And at Jackson?
A. And at Jackson.
Q. Does American Falls Reservoir have a flood control rule curve?
A. No, I don't believe it does.
Q. So to the best of your understanding, is American Falls operated for flood control?
A. It depends on how you define "flood control." Not in the same way that it's regulated for flood control in Palisades and Jackson. But for example, this year the Bureau's releasing water out of American Falls in order to keep the level of the reservoir below the new riprap work.
Q. Right.
A. And whether you consider that a flood control or reservoir operation, I don't know what definition it would fall under.
Q. Okay. But to the best of your

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understanding, that flood control, the water that's being released out of American Falls, that's not being done pursuant to a flood control rule curve at American Falls; is that correct?
A. Correct.
Q. Okay. And so under typical operations American Falls wouldn't by itself be operated for flood control.
Would it be fair to say that it's operated as a part of the entire system above Milner?
A. Yes.
Q. So if Jackson or Palisades dictated a flood-control operation or release, there may be circumstances where that water is released out of American Falls instead of releasing it out of Palisades or Jackson?
A. Physically, no. The purpose of a flood-control operation at Palisades and Jackson is to physically draw down the contents to a certain level based on the snowpack that's above it.
Q. Okay. So water that on paper is allocated to American Falls spaceholders may be contained in Palisades or Jackson and then may be released because of a flood control rule curve at either Palisades or Jackson?

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A. Yes.
Q. Okay. In response to some questions by Mr. Rigby, he was, I believe, working through a scenario that referenced a refill priority of 1921.
That would be the priority from American Falls; correct?
A. Yes.
Q. Do you recall that line of questioning by Mr. Rigby?
A. Yes.
Q. Okay. Do you recall that, again, that was following a flood-control release scenario that Mr. Rigby was talking to you about?
A. No. If I remember correctly, I was thinking that it could be a release for any reason.
Q. "For any reason" being flow augmentation or irrigation use or flood control?
A. Best example I can use is the current situation where there's currently 3,000 cfs going past Milner, but there's currently no flood-control operation going on in either Jackson or Palisades. And so I suppose someone could identify that storage going past Milner as coming out of American Falls.
And if we allowed for the refill of that evacuated space under priority, then the refill would

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come under the 1921 priority, which is the example that I was addressing with Mr. Rigby's question.
Q. Even if on paper there's American Falls space has filled in Palisades or Jackson?
A. Well, he was -- he was asking me if we allowed refill under priority. We're assuming that for some reason the storage in American Falls has been released and we're refilling under the 1921 priority.
Q. Except for an irrigation use at American Falls, can you identify for me how a refill would occur under a 1921 priority?
A. Yes. Apparently, again using the current situation that we have, we're on paper -- if you looked at paper, we're -- every -- all the natural flow that arises above American Falls under the 1921 priority is accruing or adding to the American Falls storage account in our paper accounting.
Physically however, the Bureau has decided to keep the level at American Falls Reservoir at a constant rate, so essentially they're passing through that water and it's going out the end of the system that currently is accruing to our 1921 space in American Falls.
Mr. Rigby's question, I thought, was what if we were to refill that space that's being currently

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evacuated under the 1921 priority, what would be the effect of that.
Q. I guess I'm a little confused, Tony, because right now is the '21 right filled on paper?
A. I don't -- I don't know. I don't think so. We don't start running our computerized accounting until around the 1st of April.
Q. I mean if you added up the priorities prior to '21 and included the '21 priority at American Falls, is there, on paper, fill in excess to that number, just roughly speaking?
A. No. I would say potentially there's a good chance that American Falls' storage right is full 100 percent on paper at this time or in the near future.
Q. Okay. So then I'll add to Mr. Rigby's scenario, because I'm just trying to understand.
If today on paper the '21 right is filled, even though water is being released out of American Falls and there's no flood control, you said, so then under what priority date would American Falls be filling?
A. If the storage right were full --
Q. On paper.
A. -- on paper. And you're asking under what

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right would the physical water in American Falls --
Q. Be retained.
A. -- be retained?
Q. Uh-huh.
A. It would either be retained by some other unfilled storage account --
Q. 1939, for example.
A. Yes.
Q. The Palisades right.
A. Yes. But the natural flow that arises below Palisades and Island Park can't go to fill those rights on paper. And so what you would have, I think, in the scenario you're describing is that American Falls' contents increase. That is what we call unallocated or unaccounted-for storage physically captured in the system but not under any priority.
Q. Okay. And so unallocated storage that is captured is temporarily given the priority of the reservoir that it's captured in; is that fair?
A. No. It's not getting any priority.
Q. Well, it's got to be stored under some priority, though. Maybe I'm making this too complicated. But I understand what you just said with respect to unallocated storage. It's called unallocated storage because American Falls storage is

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already filled on paper, so you can't give that storage a home.
But would it be fair to say you're still storing it under some priority?
A. No. And that's -- that's the purpose of the second sentence in this refill remark. It allows you to refill that storage above and beyond what the amount was described in the water right.
Q. So under that second remark when it says "Additional water may be stored under this right," so it's being stored under the '21 right? If this remark were to attach to 2064, it would be being stored under the '21 priority?
A. My take on it is it would be stored in American Falls Reservoir, but not necessarily under the 1921 priority.
Q. Well, again, you're using this remark, the second sentence, as the basis for storing unallocated storage?
A. That's right.
Q. Right. And so when it says under this right, whatever this remark attaches to, it will be attached to a right with a priority date, correct, as one of the elements of the water right?
A. I think the purpose of the remark was to

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allow for the additional storage of water beyond the quantity described in the right. What you described as far as priority, I don't -- I don't think that was taken into consideration.
Q. By you as looking at this, or by the State in your discussions with them?
A. I was under the impression that this remark described the additional storage that was captured physically in the reservoir system beyond the quantity that was previously stored under the right.
Q. So in this remark where it says "Additional water may be stored under this right," are you then saying that this right has a different priority under a first fill than a second fill, in your view?
A. Yes. The priority would be subordinate to all other existing and future rights.
Q. And if that's the case, would that maximize the fill of the reservoir system?
A. No. The effect would be it would maximize the total amount of water available to water users, not just storage users above Milner.
Q. And is it correct to say that it's your view that that's how it's been done since 1978, since the accounting program identified this as the protocol for storing additional water?

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A. Yes.
Q. Okay. And prior to 1978, is it your testimony that that was not always the case?
A. Yes.
Q. Okay. So prior to 1978, prior to the accounting program making that change, the protocol that we just described, refill did occur in the system; correct?
A. Yes.
Q. Okay. And how did refill occur in the system prior to 1978?
A. I think it occurred very similar to how we currently account for the water. It's difficult to tell because I don't think the watermaster began his administration until they had reached the point of maximum reservoir contents in many of the years, so it would be difficult to tell.
The one main difference is that both Lynn Crandall and Henry Eagle --
Q. And they're the watermasters prior to --
A. They were the watermasters prior to around 1969, 1968.
Q. Okay.
A. They allowed -- when Palisades was built, they allowed for the refill of American Falls storage

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ahead of the initial fill of the Palisades storage right. I think that's the only exception.
And then that practice was stopped by Art Larsen, the watermaster after Henry Eagle, prior to the time the water right accounting was developed.
Q. So at that time, to the best of your understanding, was the fill of space following a flood-control release handled differently than the refill of space following an irrigation use?
A. Which time period are you talking about?
Q. Prior to '78.
A. And what was the question?
Q. Was the fill of space previously evacuated for flood control handled differently than the refill of space following an irrigation use?
A. I don't think so.
Q. That is, prior to '78 there were times where it was just done by priority?
A. Prior to 1978, I -- it appears to me that most of the time they would wait until they reached the day of maximum reservoir contents and would simply allocate based on that. How they distributed the flood control, I'm not sure.
But as they were spilling water past Milner for flood control or whatever reason, storage usage was

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cancelled, just as it is today.
Q. And the irrigation use as it is today?
A. And the irrigation use also.
Q. Tony, in your view, is there a difference between flood control and the availability of water to the spaceholder as opposed to an irrigation use and the water being available to the spaceholder? Let me rephrase that.
I mean if a spaceholder needs water and makes a demand or calls for that water for irrigation, that water is then made available to them if that water's in their space; correct?
A. Yes.
Q. Okay. If you have a flood-control event occur and it occurs at a time of the year when it's not needed, then the spaceholder arguably wouldn't call for it; correct? If it's not needed, they're not going to call for the water; is that common sense or is that agreed?
A. Water District 1 doesn't require the water users to call for their water. We do an after-the-fact accounting. So we look at what's been diverted this past day, then we calculate the natural flow available, we look at the water rights for the diversion that's diverting water.

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If there's sufficient natural flow to fill their water right, then they're using natural flow. If there isn't sufficient natural flow to fill their water right, then it's charged as storage.
Q. All right. So in terms of then a flood-control event, if a spaceholder, a diverter, diverts the water, if there's natural flow going over Milner, sufficient natural flow going over Milner, is that diverter charged with natural flow if they have a natural-flow right?
A. I think I see what you're getting to. We account for whether the diversion is diverting natural flow or storage. If there's water spilling out past Milner because of a flood-control operation, that storage diversion is cancelled.
If there isn't water spilling past Milner, the storage diversion is not cancelled, even though they may be releasing flood-control water out of Jackson or Palisades, if it's physically being caught in a downstream reservoir, there's no loss to the system; and therefore, we would charge for the storage diverted by the irrigation diversion.
Q. I understand that. I guess the point I'm trying to get to is a question for you that if a spaceholder's space is eventually at the date of

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allocation short because of a flood-control release that has occurred, in your view, is that a different circumstance than if that spaceholder had diverted water for storage use for irrigation?

A. The shortage from flood control dictates how much storage we can allocate to each of the spaceholders. And the spaceholders can use that amount of allocated storage regardless of what time of the year. They can divert it whenever they want to divert it.

Q. All right. And so if a flood-control event occurs and an individual entity's space doesn't fill because of that event, that water that was released may not have ever been available to them at the time of the year they needed it; correct?

A. Correct.

Q. Whereas if that entity had called for storage or had diverted storage, they had the ability to utilize that storage; correct?

A. Correct.

Q. Okay. Two different circumstances; correct?

A. Yes.

Q. Okay. But the accounting program, as it's set up now, doesn't distinguish between the filling of

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that space?

A. I don't understand the question.

Q. Well, if you have a flood-control event and an entity had used storage, at the time of that flood-control event the slate is wiped clean in terms of that irrigation diversion that had occurred?

A. If the flood-control storage released went past Milner.

Q. Okay. I guess with all my questions that's what I'm presuming, is that if you have that circumstance occurring, it's not captured, because in most cases the Bureau in recent years releases water -- well, strike that last part.

But in that event do you understand what I'm saying, is that would you agree that the circumstances are different for that individual entity in terms of the availability of water and the differences between a flood-control event and an irrigation use and the availability of that water?

A. Well, you're describing two different scenarios. The first scenario, I think, is that there's not a flood-control event so the reservoir would fill. The diversion -- the spaceholder then would be allocated 100 percent allocation.

If a flood-control event occurred and they

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didn't refill that evacuated space, you would be allocated less than 100 percent. It has no bearing on what he's diverted up until that time.

Q. But the difference between that individual entity and someone who hadn't diverted storage, they would take the same hit if they're in the same reservoir?

A. They would both have the same storage allocation. One would have used storage and one would not.

Q. Right. With respect to the allocation of unfilled space following a flood-control event, I think you said it's 75 percent is allocated to Palisades and 25 to Jackson.

Do you recall that?

A. That's correct.

Q. Okay. And with respect to Palisades, it's apportioned equally across all the spaceholders in Palisades?

A. The best way to describe it, when there's a shortage due to flood control, everyone's carryover gets wiped out and every spaceholder in that reservoir gets the same percentage allocation.

Q. And is that the same methodology that's utilized at Jackson?

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A. Yes.

Q. So for example, if you're 100,000 acre-feet short of a full reservoir on the date of allocation, 75,000 of that unfilled space would be allocated to Palisades, 25,000 would be allocated to Jackson?

A. If the failure to fill was due to flood control, yes.

Q. And then that 75,000 acre-feet that would be allocated to the Palisades spaceholders would be proportioned out to them without reference to priority date of their space?

A. Correct.

Q. And the 25,000 allocated to Jackson would be allocated out without referencing their priority date in Jackson?

A. Correct.

Q. If you know, Tony, why was refill not given the same priority as the original storage in that reservoir? You referenced earlier that Henry Eagle and Lynn Crandall did it a certain way, and then when Mr. Larsen came on it was your perspective that the way refill was handled was changed. Do you have an understanding of why that occurred?

A. When I was reviewing the records over the past year reading through the annual books and how the

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accounting was done, I noticed during the time that Art Larsen was watermaster, most of those years the reservoir system filled completely. They were good water years. It wasn't an issue, except there was one particular year -- and I don't remember what year it was, but under those conditions I noticed that Art Larsen didn't give credit of refill to the American Falls spaceholders as Henry Eagle and Lynn Crandall would have under the same conditions.

I've been told that there was some correspondence with the Director as to whether or not the refill should occur ahead of the initial fill of junior rights. And the answer to that was no, it shouldn't.

Q. And do you recall what correspondence that was?

A. I think it was between the watermaster and the Director of the Department at the time.

Q. And by "junior rights," are you referring to junior storage rights, the first fill of Palisades, or are you talking about junior storage and natural-flow rights?

A. I'm not sure what the question was geared to, whether or not it was just storage or pertained to everybody.

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Q. But what you recall in the documents you reviewed, do you recall if that refill was then secondary or junior to the first fill of all storage space, or was it junior to all storage and natural flow within the water district?

A. When the watermaster made his allocations, he credited the refill to American Falls spaceholders, only that it used storage up until that time. During the time or prior to the time new accrual occurred in -- I should say new physical contents increased in Palisades as the American Falls Reservoir contents were dropping.

Q. So it was relative to the junior/senior spaceholders in the system above Milner when you talk about allocation?

A. Well, no, it wasn't done for everyone. It was done for only the American Falls spaceholders and only ahead of Palisades. Or the way it was calculated was the new accrual in Palisades went towards the refill of spaceholders in American Falls that had used storage.

Q. Yeah. I was talking more in that circumstance that you mentioned about with Mr. Larsen the year in which Mr. Larsen sought input from the Director of Water Resources and whether or not from

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your understanding that discussion pertained to junior storage rights and senior storage rights in the system above Milner or all storage and natural-flow rights above Milner.

A. I don't know. I haven't seen the correspondence.

Q. Okay.

MR. BROMLEY: John, it's about 20 after noon.

MR. SIMPSON: Do you want to break? We can break for lunch.

MR. BROMLEY: Maybe we can just go off the record real fast.

(Lunch recess.)

Q. (BY MR. SIMPSON): Tony, I just have a few more questions.

And one question would be I think you identified that the provision that is contained in the Notice of Deposition, Exhibit 1, and in the State's motion for summary judgment is a fair representation of the status quo of basically how refill is considered today --

A. Yes.

Q. -- is that fair?

Would it also be fair to say that there is at least the potential that if this recommendation or

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this remark were included that the ability to refill may be substantially less in the future if new rights are licensed or decreed?

A. The potential there is to reduce the refill with future allocations, yes.

Q. Okay. So every new right that is decreed within the system above Milner has the direct potential to reduce the refill of storage rights in Water District 1?

A. Yes.

Q. So for example, any right that was licensed after or permitted after 1979, for example, would have the ability to take water that otherwise might be available for refill of storage above Milner?

A. Yes.

Q. And in those circumstances, if those were to occur, then we wouldn't necessarily be maximizing the fill in the system?

MR. BROMLEY: Objection. Calls for speculation.

Q. (BY MR. SIMPSON): You can answer if you can.

A. No, I would disagree with that, because if there's, let's say, a 1970 priority and they divert as a result of taking water away from refill, that water we can say was definitely used for that 1970 water

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right.

But there's the chance that if it hadn't been allowed to divert the water and instead went to refill, there's no guarantee that that refilled quantity would be used above Milner because you could get into the situation where there's water that came down later in excess of what was needed to physically fill the reservoir, and as a result the water went out into the system, and you've curtailed that 1970 from diverting water when it otherwise could have.

Q. Because of the timing of the flows?

A. Yes.

Q. But if that water came down later, then the 1970 could still divert it; correct?

A. Only after the senior water rights were filled.

Q. And if the senior water rights were filled, then the 1970 right under your speculation could divert it?

A. Yes.

Q. In your testimony this morning you referenced that you had some communications with Mr. Orr from the Attorney General's office; is that correct?

A. Yes.

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Q. Regarding a refill remark or how refill occurred; is that correct?

A. Yes.

Q. And I think you referenced that there were some telephone conversations?

A. Yes.

Q. Were there any e-mails or written correspondence?

A. Specifically to this issue, I don't recall any e-mails.

Q. Any other written documents?

A. None that I can recall.

Q. Tony, let me just ask you a couple questions on your perspective regarding fill versus refill.

That is, if water is filled in space and has not been utilized by the spaceholder, is that a different circumstance than if water has filled in space, is available for the spaceholder, and is utilized and then that space refills?

A. Can you repeat the question?

Q. Well, I'm trying to identify whether or not, in your view, there's a difference between fill and refill. That is, when space has filled and is subsequently evacuated, is that a different

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circumstance than if the space is filled and at that point is available for the spaceholder?

A. Well, the difference between fill and refill is mostly just timing. Fill is that water that fills the reservoir that goes also towards filling the storage account in the water right accounting program.

Refill is the same thing where water could accrue to a reservoir, but it doesn't necessarily go to any storage right.

Q. So let me ask this hypothetical: If you were creating an accounting program for accounting for the fill of a reservoir, in your view, should there be any consideration about whether or not that water that filled space was actually available for a spaceholder to utilize in identifying it either as fill or refill?

A. Well, the way the accounting program works is as long as you don't spill water out the end of the system, everything that accrues to the storage account is available.

After that storage account fills completely and you get additional storage, that's also available, but what the unknown is who it's available to.

Q. And so that helps me. And so then do you think it would be wise to consider not only that it's available, whether it's needed?

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A. The water district doesn't make the determination of need. We simply account for the water and distribute it to the appropriate water rights or storage rights.

Q. Understand. Then how about in determining whether or not that water was available, whether it was actually used by that spaceholder or by a spaceholder in the district, do you think it would be wise to consider that fact?

A. You'll have to repeat that.

Q. Well, we've talked about water being available. And you said that the water district doesn't consider whether it's needed, just accounting for it and whether it's available.

And my question goes to when you consider whether it's available to the spaceholder, do you think it would be prudent to consider whether it was actually used by a spaceholder within the district?

A. No. The water district doesn't make that determination. We simply allocate what's available. And whether or not they choose to use it or not, it's not our decision. They can choose to carry it over to the next irrigation season, or they can choose to use it all in the current irrigation season.

Q. Okay. But if that water was evacuated from

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space and then subsequently that space didn't fill after the evacuation, was that water available then to that spaceholder?

A. No, it would be deducted from the allocation.

MR. SIMPSON: Right. Okay. That's all the questions I have.

MR. TUCKER: Tony, I've got a couple questions. I don't really have a big interest in this. I'll set that forth right off the bat. But I am confused. Okay. And I've got just a couple questions that you might be able to help me with my confusion. And if you can't, I'll go to lunch with these guys again and ask them sometime.

MR. SIMPSON: Not to the same place.

EXAMINATION

BY MR. TUCKER:

Q. For the record, my name is Jim Tucker. I'm with Idaho Power Company.

You testified that when you refill the reservoirs you don't do it in any particular priority, but I took that as in one way you were saying you didn't take a preference, in other words, you didn't fill one reservoir over another; is that right? You

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didn't refill the reservoir over another?

A. The refill is just a matter of physical storage -- additional physical storage occurring in the reservoir system after the rights have been filled.

Q. So it's just somewhat opportunistic, then?

A. Yes.

Q. Okay. That refill -- what I'm a little confused about, that refill that occurs, is that then reallocated back to storage accounts?

A. Not necessarily.

Q. All right. When would it be and when wouldn't it be? That's what I'm confused about.

A. There are lots of different scenarios. And I'll throw out just a few, and I may be excluding some.

Let's assume we had 50,000 acre-feet of unallocated storage that we captured in the reservoir system as refill, it's in the system, hasn't been allocated to anyone. What do we do with that? If it was a year in which we released water, storage water for flood control, and we failed to refill that -- I should say, let's say that space that was evacuated and went past Milner is less than this unallocated storage that we refilled with, we first refill that water that was released for flood control. Now we have a chunk of water that still doesn't belong to anybody.

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Then what we can do at that time is we can credit it with the storage use that had already occurred. It allows us to allocate to everyone 100 percent, but we still have some extra water. And we take the storage usage from canals from the beginning of the irrigation season and just work our way forward until we run out of water. And that way we allocate every acre-foot of water in the system. We don't have any left over that we don't allocate.

So the answer is sometimes it goes to offset the flood-control release, sometimes it will go to cancel storage that was diverted early in the irrigation season, and sometimes it will go to unfilled storage accounts. And that's the last option that I haven't talked about.

And that's the situation of where American Falls Reservoir, the storage right is filled to 100 percent, but we've captured the water physically up high in the system in Palisades, or even Island Park, and that allows for any surplus gains that come in below those reservoirs to physically accrue and are captured in American Falls Reservoir. But since their right is 100 percent full, there's no way to allocate that storage.

And one of the things we've done in the

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past, depending on the circumstances, we take that additional storage and we add it to the unfilled junior storage accounts when we make their allocation.

Q. Which are higher in the system?

A. Which are higher in the system.

Q. Okay.

A. And the basis for that is that the only reason that additional storage occurred in American Falls was because of the benefit of the upper reservoirs that held the water up higher, you've maximized your water capture.

Q. Okay. So are those processes or procedures that you just went through, are they memorialized anyplace, are they written down anyplace where you would know how to follow that? Say if you were sick one day, somebody else would know how to follow that situation?

A. No. It's always been at the watermaster's discretion.

Q. Okay. So it's something that you learned and I suspect Lyle learned just from kind of being on the job and seeing how the system worked and learning that as you go?

A. Yes.

Q. Okay. Now, I was a little confused. This

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also confused me: You said when flood-control releases are made, if they don't leave the system, if they don't go past Milner, and then you made -- excuse me if I've got this wrong, but then you made a statement that in those situations there's no space available for refill if you had -- I took it if the storage accounts were full -- do you recall saying that or --

A. Yes.

Q. Okay. Can you explain what you mean by that?

A. Yes.

Q. Okay. Okay.

A. The way the water right accounting works is that it keeps track of every water, distributes it to natural flow, storage accounts. If we never spilled a drop of water past Milner, the physical contents in the system would always equal the physical fill in the storage water rights.

Q. Okay.

A. And so if we're not spilling water past Milner and they release water for flood control out of Jackson and Palisades and it's physically caught in American Falls, we still have the same amount of water that we can allocate to what we've accrued on paper.

So what that means, since we haven't

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spilled water out the end of the system, there's some unfilled account in the system. And so there wouldn't be any refill.

Q. Okay. So if you captured water in a higher reservoir, then, that would go to fill that account, it wouldn't be refill, it would be filling that account, that unfilled account?

A. It would be the initial fill instead of the refill.

MR. TUCKER: Okay. I got you. All right. All right. That makes sense. Okay. All right. Well, maybe that answers my other questions I've got here. Okay. That may be all I have. Thanks. Appreciate it.

MS. McHUGH: I think I just have a couple clarifying questions.

FURTHER EXAMINATION

BY MS. McHUGH:

Q. And I think this was John's question, but I think he asked if every new right -- when looking under the remark, every new right has the potential to reduce storage rights in Water District 1 under this remark. And I think you agreed with that statement.

Do you recall that?

A. Yes.

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Q. Do you mean that every new right has the potential to reduce storage rights or every new right would have the potential to reduce physical fill or refill?

A. We're talking potentially. It doesn't necessarily mean it could happen. But potentially if you allow a junior appropriator future right to divert water that otherwise would have been captured in the reservoir, the potential there is to effect a spaceholder from additional storage he otherwise would have received.

Q. And the reason a junior future right could do that is because the -- is why? Explain how that would happen. I don't follow.

A. The filling under priority is limited to the quantity described in the right. American Falls, it's this 1.67 million acre-feet. Once we've stored that amount --

Q. Maybe I need to stop you right there.

Once you've stored the full quantity under the American Falls water right 1-2064, once that full quantity's been stored, can a junior future right impact the amount of water stored under that water right?

A. It could only impact the refill --

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Q. Okay.

A. -- of that right.

Q. That's what my question was. So just to recap, then.

Once water under 1-2064, once that water right has been totally filled up to the quantity on the water right, a future junior use could not impact that water right storage?

A. Not the initial fill of 1.67 million.

Q. Okay. That was my question. John also asked you one other question relating to water right 1-2064. And I wasn't sure I understood your answer.

And it was along the lines of if a 1921 right is filled but the physical fill is unallocated storage, not under any priority, what happens. And I didn't understand your answer. So could you repeat your answer.

A. Well, that scenario, I think, was when American Falls isn't physically full but their water right is filled to the 1.67 million, but we have additional storage that's captured in the reservoir that's surplus water that wasn't distributed to any senior water right, that becomes available to someone.

And as I described to Mr. Tucker, several things can happen. At that point the watermaster can

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decide to offset any reductions to flood-control releases by that additional storage, or you can use it to cancel storage that had been previously used by a canal, or you can add it to unfilled storage accounts.

Q. Thank you. That helped me.

I think that in the first answer to that question you referred to storing water rather than capturing water.

And do you see a difference in those two words?

A. Yes.

Q. Okay. And could you explain the difference between those two words to me.

A. Yeah. Storing the water would be assuming to store it under the water right.

Q. Uh-huh.

A. Capturing the water would be physically capturing the water in the reservoir that doesn't necessarily -- is assigned to any water right.

Q. Okay. And one more clarifying question. And I may have misunderstood the answer or the question.

But there was something along the lines of if a storage water right or a storage reservoir is physically refilled after the day of allocation and

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there were previously unfilled storage rights, can you tell me what would happen?

A. Refill can't occur after the day of allocation.

Q. Okay. Physical refill cannot occur. I'm not talking about physical refill of the reservoir.

A. That would be correct.

Q. Okay.

A. And I should say physical refill of the reservoir system. The way they operate the reservoirs, you may see an increase in contents in one reservoir, but it would be offset by the decrease in contents by another reservoir. So after the day of allocation, the net system contents are always going down. They're never going up.

MS. McHUGH: That helps me. Thank you. Okay. That's all. Thank you.

FURTHER EXAMINATION

BY MR. RIGBY:

Q. Even if they have to adjust the date of allocation because they incorrectly described it? Isn't that what you said earlier?

A. Correct. The final day, after you get to the end of the year and you look back at the day of

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allocation, it comes after the last day of physical increases.

Q. And that's why your statement that it cannot occur will always be a fact because that's what you'll look back to and say once it started going down, that's the date of allocation?

A. Yes.

Q. It's more complicated than that, but that's why you can make that bold statement, is it not?

A. Yeah. We have had years where we thought we were at the day of allocation, and then -- that's in realtime, and then eventually we found out that we had this unexpected supply of water that came through the system, and so the day of allocation moved to that date. But we never have two days of allocation in any one year.

Q. Right. Okay. Just a couple other clarifications that were raised as a result of counsel's questions.

First of all, assume for a moment -- and of course, I represent a group called Mitigation, Inc., owning interest in Ririe Reservoir. And quite candidly, it's the toughest reservoir to fill for one main reason, and that's source of water in the sense that not only is it low on the priority table, its

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source itself is difficult some years to actually fill that reservoir.

The question I would have is assume for a moment, then, that all these reservoirs have filled to their capacity, the two that we're talking about particularly here that they filled on paper to those capacities, isn't it a fact that Ririe, generally speaking, will hold some of that water that made that fill possible for American Falls?

A. Yes.

Q. And in fact, that's the intent, keep it in Ririe if you can; right?

A. Yes.

Q. Okay. So getting to Mr. Tucker's question, where we're not completely full in the system, because let's say everything's filled but Ririe -- and that can happen; correct?

A. Yeah.

Q. Because of its bad source and low priority.

Until it is filled the priority for Ririe still is on; correct?

A. If American Falls is filled and there's sufficient natural flow, yes.

Q. Yes. And so in this conversion of water that occurs, so to speak, we've always viewed it and

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treated it like for every acre-foot, once it's filled like that, American Falls is filled, for every acre-foot of water that is then captured in American Falls beyond its paper fill puts one more acre-foot of water conversion that was owed to Ririe -- excuse me, owed to American Falls by Ririe, now not owed? Does that make sense?

A. Yes.

Q. Is that correct?

A. Yes.

Q. I'm using the scenario where there's no others that -- all the others are filled.

A. Yes.

MR. TUCKER: Yeah, you're kind of testifying too.

THE WITNESS: It's the situation I described to Mr. Tucker where Ririe is physically holding American Falls storage, and because of that there's some empty space in American Falls, even though it's filled on paper, and we have this surplus water come down that we're able to physically capture in American Falls Reservoir.

And at that time we look to Ririe Reservoir. And that American Falls water held is no longer needed. That unallocated-for storage, in a

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sense, replaces the water that was held upstream. And therefore, American Falls can get full allocation allocated to it, and Ririe then gets the physical contents allocated to it.

Q. (BY MR. RIGBY): Very good. Now, but is that a different scenario than what you've been testifying as to the refill?

A. Yeah, the potential is there. If we -- if we assigned a priority date to the refill of that water coming into American Falls, you may find yourself in a situation where you're not able to do that swap of unallocated-for storage with Ririe Reservoir, and they're stuck with only the amount that they accrue on paper, which is usually a smaller amount than they hold physically in the reservoir.

Q. So that would be if the change occurred as to a priority refill?

A. Yes. The potential there is reduce the benefit that Ririe gets from holding American Falls water in it on those years where the system nearly fills.

Q. As to the discretion of allocation of the captured water in the refill, I guess I'm still a little unclear, then, as a result of your answer of a moment ago.

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And that is, if it's the discretion of the watermaster, then when I was talking about -- and I shouldn't have said "priority," because someone pointed that out. I used the wrong word. And it wasn't a priority in the sense of water priority. I think that's what was asked. It's not a priority issue. It's you've captured this extra water, and the reason you're able to capture it, even though the system filled on paper or completely filled, you've had releases. And we've talked about them. Releases as a result of flood control, releases as a result of diversions for irrigation, and releases for fish augmentation.

There could be others, but basically those are the big three; is that correct?

A. Yes.

Q. Okay. So are you saying, then, that the capturing, wherever it's captured in the system thereafter, goes first to flood control, or is that still part of this discretion of the watermaster?

A. In my experience, assuming you have all three situations, you have a situation where the amount of water physically available in the system is less than the amount that we've accrued on paper, and people have already been diverting storage water after Milner

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spill ceases, we have this surplus of storage water in the system that we have to allocate to someone, generally the first thing it does -- or the watermaster has done is apply that unallocated storage to fill the flood-control evacuated space so that the paper contents will match the physical contents, so we're able to allocate what's on paper.

If we're able to do that entirely, we still have a surplus of this storage water in the system. Then we can use it to offset either previous storage diversions or we can use it to fill unfilled storage rights or add to their fill.

Q. But let me stop you right there. The reason they're unfilled is for what reason? Is it because of like Ririe, it just didn't fill from its source, or is it because of diversions for irrigation as you've talked about in the other two scenarios?

A. It depends on the timing and the location of the runoff. The reason they didn't fill is for whatever reason. The physical contents don't match the amount that we've stored on paper.

Q. Okay. But again, then I'll ask you the question, as others have asked.

That's just discretionary, according to your testimony? You don't have anything else that you

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know of that would give the watermaster that right to -- and I don't want to say prioritize, but to allocate according to the way you've just described?

A. Yes. The unallocated-for storage for this refill doesn't belong to anyone, according to the water rights. And so it's at the watermaster's discretion as to how he should distribute that water. And that's the way it's been operated in the past.

Q. Do you know why? Why would refilling of the flood control be first as opposed to third?

A. I think that's just how it's been done in most years. But I suppose a watermaster with a different philosophy could do it differently.

MR. RIGBY: Okay. I have nothing more.

MR. ORR: I do have a few more, again, just clarifications.

FURTHER EXAMINATION

BY MR. ORR:

Q. Tony, I think a bit earlier -- I think before lunch -- Mr. Simpson asked you if this remark in Exhibits 4 and 1, which authorizes or seeks to authorize storage of additional water even after a right fills, if it was included as a remark in the decree, I think Mr. Simpson asked you "Wouldn't the

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priority of the remark also attach to storing the additional water?"

And the reason I'm asking for clarification on this is I think there might have been some confusion over the distinction between a water right and a priority date. Sometimes they're used interchangeably.

Is your understanding that a priority date is simply one element of a water right?

A. Yes.

Q. Okay. And this remark to which I referred in Exhibits 1 and 4, particularly the second sentence, making the storage of additional water subordinate to existing and future rights, do you understand that as -- I'm searching for the word, but I'm going to try this one -- negating the priority element as to the storage of additional water?

A. Yes. And I thought that was clarified in one of John's last questions when he was asking about this issue, is that in the initial fill we store under the 1921 priority. And then once we've reached the quantity of that right under that priority, then the priority becomes junior to all existing and future rights.

Q. So under this remark, although the refill storage of additional water would be authorized by the

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remark under this water right, it doesn't mean that priority attaches to it?

A. Correct.

Q. Okay. Bear with me for just a moment here, please.

Now, I believe you've testified here that this remark to which I referred would be consistent with how refill, quote, "is done in Water District 1 now."

Does that mean that storage of additional water beyond the first fill or refill is done using excess or surplus water?

A. Can you ask the question again?

Q. I think you've testified -- and correct me if I'm wrong -- that the remark in Exhibits 1 and 4, if it was included in the water rights in question here, would recognize and authorize the type of refill that Water District 1 has been doing while you've been there, and it's consistent with how Water District 1 has operated, quote, "refill"?

A. Yes.

Q. So am I correct in concluding that that means the way Water District 1 has operated refill in your experience has been that refill is done using excess or surplus water?

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A. Yes, that's correct.

Q. Can you define for me what "excess or surplus water" means in that context?

A. Excess or surplus water would be any amount of water in the system each day that's in excess to the demand by water right users.

Q. So under the remark in Exhibits 1 and 4, specifically the provision subordinating refill to future water rights, the only thing we'd be talking about reducing is the supply of excess or surplus water in the future, potentially?

A. Yes.

Q. It would not diminish the priority of any existing right?

A. That's correct.

Q. I think in response to the question by Mr. Rigby or Ms. McHugh you said something to the effect of physical reefer -- refill cannot occur --

A. Reefer madness.

MR. BROMLEY: Never thought you'd see that in a transcript.

MR. ORR: With my name on it.

Q. Let me start over.

After the date of allocation, I believe that you said or agreed to the statement that physical

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reefer -- refill -- there it is again -- cannot occur.
Do you remember saying something like that?
A. Yes.
Q. So when water accumulates to the system after the date of allocation, is that the, quote, "first fill" of the next year's supply?
A. Yes. And October is the exception. There is increase to the system after the day of allocation. But prior to that time, the day of allocation, there isn't any additional increase in the net reservoir system contents until you reach that time period, usually in October, when the demand drops and we're able to capture additional water under priority towards the initial fill the following irrigation season.
Q. Okay. And related to that -- just because I'm struggling with understanding the statement you made there -- I have read in some documents where people or where the document refers to the first fill of a reservoir during a given season or water year as a refill. Usually that's in the sense of power operations or fish flow augmentations. I've seen documents documenting, well, this reservoir will be able to refill every year.
Why I'm leading into that is, would you agree that sometimes the term "refill" is applied to

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what is not the type of in-season refill we're referring to here?
A. Yes.
Q. And all I'm getting at here is, in my opinion "refill" is a little bit of an ambiguous term, you have to be careful how you're using it.
Would you agree with that?
A. Yes.
Q. And I think this is my last question: The watermaster's exercise of discretion in connection with some of the decisions you've referred to here -- and I think you also referred to watermaster philosophy regarding exercise of that discretion.
And sometimes the word "discretion" is understood to mean arbitrary or capricious, for instance, the watermaster's exercise of discretion is being arbitrary or capricious.
Is that what you mean, or is it discretion within some parameters or guidelines or policy objectives?
A. The goal distributing this unaccounted-for storage is to try to match the physical contents to what has been accrued on paper. That's the primary goal. Because of that, that's generally the order as to which we credit that unaccounted-for storage where

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it goes first to refilling that evacuated space for flood control to match what we have on paper accrued to the storage accounts.
Secondly, the other two possibilities are filling unfilled storage accounts or cancelling previously used storage.
Where the watermaster's discretion comes in between those two choices is generally where the unaccounted-for storage occurred. And I think if you have two different watermasters, they may make two different decisions. And I'm not sure which would be correct.
MR. ORR: I think that's all I have.
MR. SIMPSON: Okay. I got a few follow-up, then.

FURTHER EXAMINATION
BY MR. SIMPSON:
Q. Tony, just in reference to your last testimony about where you have two different watermasters making two different decisions and the discretion.
Do you recall that testimony just now?
A. Yes.
Q. And that being discretionary, in your view,

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is that --
A. Yes.
Q. Would that be similar to how a refill occurred and under what priority in terms of how Mr. Crandall handled it versus Mr. Larsen, in those terms it was discretionary on their part as well; correct?
A. Well, that's the decision they made. And the Director determined that that was the incorrect way of doing things. And so the watermaster no longer had discretion to do that.
Q. So it became the Director's discretion to make that decision?
A. Yes.
Q. You know, right after lunch I asked you a couple questions about the potential if this remark were implemented on the effect of refilling storage. And the remark I'm referring to is the remark in the Exhibit 1 and in the State's motion.
Do you recall that testimony?
A. Yes.
Q. Could the implementation of this remark also affect a spaceholder's water supply?
A. Yes.
Q. Because if fill didn't occur after a

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flood-control release, that would affect the allocation, then, to a particular spaceholder?
A. Correct.
Q. Okay. And so we just talked about the potential to affect the water supply with respect to future rights.
Would it also be the case that rights issued say after 1978 also would have the potential to affect the water supply of a spaceholder?
A. Yes.
Q. Based upon the implementation of this remark; correct?
A. Correct.
Q. And, Tony, just if you could refer back to that remark.
Since we've had a lot of time to discuss it today, what does "incidental," as it's identified in the second sentence of the remark, mean to you? And what does it mean to you, and how has the word "incidental" been utilized in how you've allocated or accounted for water to date in Water District 1?
A. Well, I suppose the best way would be to look up the definition of "incidental" in the dictionary, but what that means to me is is that --
MR. SIMPSON: The lights are out.

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MS. McHUGH: Can you continue, Jeff?
THE COURT REPORTER: I can run on battery for a little while.
Q. (BY MR. SIMPSON): Go ahead and finish your sentence.
A. Incidental and subordinate, what that means to me is that the storage rights can't make a call against any other existing or future water rights to refill that space.
Q. So the word "incidental" and the word "subordinate" have the same meaning to you in the context of that remark?
A. Well, if you took out the word "incidental," I don't see any problem with that. I think it would be just fine if it said, "This right -- under this right with such additional storage is subordinate to all existing future rights," that would be fine also.
Q. But as you look at that remark and in terms of how you've, in your duties in Water District 1 have accounted for water, the word "incidental" has no meaning to you?
A. Yes.
MR. SIMPSON: That better be all the questions I have, based on battery life.

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MS. McHUGH: Well --
MR. TUCKER: I have just a couple more.
MS. McHUGH: That's fine.
MR. TUCKER: Can I do that?
MR. SIMPSON: Hurry.

FURTHER EXAMINATION
BY MR. TUCKER:
Q. This kind of traffic's off some of Candice's questions.
Can you give me an example of when you store water and when you capture water, the difference again. I'm not clear on that difference.
A. Storing -- the accounting program, it keeps track of the reach gains in every reach of the Snake River. And then we distribute those gains based on the priorities of the water rights for diversions in those reaches or in downstream reaches.
Every drop of water, assuming we're not spilling water past Milner, is distributed to those storage accounts according to priority, according to the amount of natural flow in the river each day.
But the physical reservoir contents, the actual capturing of storage, may be different than what's showing as accruing on paper.

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One of the reasons could be that you have storage users, canals, using storage at the same time we're accruing new storage to a senior reservoir priority.
So what you would see physically is reservoir contents could be remaining steady. We aren't really capturing any water, but we're accruing water on paper at the same time it's being used by the canal diversion.
So the difference being capturing and accruing water in the paper accounting is that accruing paper -- accruing water in the paper accounting is what's accruing to the water right itself. Capturing is the determination of the increase in reservoir contents.
Q. Okay. Okay. All right. Just let me see if I can simplify it for me, then.
So when you're refilling, are you capturing water or storing water or both?
A. In refilling we're only capturing water, we're not storing water, because the assumption is is that the only time you can refill is when the storage right is 100 percent full.
Q. So when you're refilling, you're not storing water under any water right? You're capturing

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water, but not under a water right --
A. Correct.
Q. -- or are you; correct?
A. Correct.
MS. McHUGH: Oh, good.
THE WITNESS: I thought I was going home.
Q. (BY MR. TUCKER): So let me again express my ignorance some more.
So in this remark where it says "Additional water may be stored under this water right," that's not applicable to when you're capturing water under refill?
A. Yeah, I suppose the word "storage" would apply on the day of allocation when we actually allocate the storage. But it's based on the water that was captured up until that time.
Q. Okay. I'm really confused now. Probably mixing apples and oranges.
MS. McHUGH: Maybe I can help.
MR. TUCKER: Anyway.
Q. Okay. I guess I know as much about that as I'm going to learn from it.
Mr. Orr asked you a couple questions about -- and this again gets back to the discretionary decisions or the decisions the watermaster makes about how to assign or allocate unallocated storage that you

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went through before. And you said there were certain -- you mentioned certain goals that you believe or you testified the watermaster might have in mind.
But again, I guess my question goes back to, is there anyplace that those goals or guidelines are memorialized where they're either in a Departmental memorandum or a guideline or something like that, or again, is it simply historical knowledge that that watermaster has on how the system works?
A. I think it's mostly based on historical practice. There may be some documentation out there somewhere that has documented what was historically done. But I don't know where that would be or what that would be.
MR. TUCKER: Okay. Okay. That's all I have. Thanks.
MR. BROMLEY: Candice, I've got three, since we're going to come back around, and you'll start again.
MS. McHUGH: Okay.

EXAMINATION

BY MR. BROMLEY:
Q. Tony, John was asking you some questions about speculative issues of injury based on future

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appropriations.
And I guess my question is, any new appropriation would have to be applied for, a permit issued, and then ultimately, I suppose, a license issued by the Director.
There are administrative remedies for any water user that believes they're going to be injured by a new appropriation, aren't there?
A. Yes.
Q. So they could file a protest?
A. Yes.
Q. Okay. Jim was asking you some questions about refill and capture. Right now it's a historic practice, is my understanding, that the water district even allows refill or capture of water in a reservoir once the contents have gone down.
There isn't a water right that authorizes it, is there?
A. Yes, it's -- it's just something that's happened. The water district doesn't make the decision as to whether the Bureau should hold the water or not. It's just what has happened in the past. We have this chunk of water that we allocate, and that's that refill or unallocated water.
Q. So this remark would actually authorize the

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ability to store water after the water right has been fully satisfied?
A. Yes.
Q. And that would be consistent with historical practice?
A. Correct.
Q. But then there would actually be a right that would authorize the ability to do it?
A. Yes.
Q. And then lastly on this issue of watermaster discretion, you talked about the Crandall-Eagle method maybe in a couple select years where only American Falls was filled ahead of Palisades, and then when Mr. Larsen became the watermaster -- what was that, around 1970?
A. Yes.
Q. -- there was a change in that practice.
This remark would limit discretionary practice changes by the watermaster; is that correct?
A. That's correct.
MR. BROMLEY: Thank you.
MS. McHUGH: Thank you.
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FURTHER EXAMINATION
BY MS. McHUGH:
Q. Okay. And, Tony, I'm sorry to have to go back and ask some questions, but I think it's important for me to understand how this remark works in relationship to how the Water District 1 storage system has operated. And I at one point thought I was clear, and I'm now sure I'm clear now so I have to do some follow-up questions.
And I understand your answer to be that there is no net increase to storage after the day of allocation.
Is that right? Is that what you said?
A. With the exception of late in the year towards October.
Q. Okay. And that the no net increase to storage after the day of allocation is due to the accounting program, there's no net increase to storage in the accounting program?
A. Both the accounting and physically, because what's happening is is that water rights senior to the reservoirs are using all the natural flow.
Q. Okay. That brings me to my question. I need to make a couple of assumptions so I can get this clear in my mind.

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Water District 1 and the watermaster have determined that their estimated day of allocation is May 28th. As of that date, though, the entire system is not filled. On June 20th there's a lot of rain that happens, and canals stop demanding natural flow, they stop taking water because they don't need it because it's raining.
Are you with me?
A. Yes.
Q. Okay. Does refill happen in reservoirs physically under that scenario? Can it?
A. Both new fill and refill could both occur.
Q. Okay. And the new fill -- explain to me who gets the new fill.
A. The new fill would have been the unfilled water rights at the time of the first attempted allocation.
Q. Right. Okay. So we now have the initial day of allocation was May 28th.
After that initial allocation date, a bunch of rain happened, demand went down, but the system hadn't filled before and the system hadn't filled on paper or physically before the May 28th estimated day of allocation, and what you're telling me is when you have that rain event and demand drops, the reservoirs

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actually are -- refilling is occurring, and now those folks who didn't have any storage in their system prior to May 28th could now suddenly have storage accounts that get bigger on paper?
A. The way I would describe it is fill continues --
Q. Okay.
A. -- in June. It's not a refill. Still the fill, because we really haven't reached the actual day of allocation. Our first attempt in May was incorrect. And the day of allocation would move until after you got past that period of rain and the reservoir system again began to drop.
Q. Okay. How do you decide which fill continues?
A. It's based on the daily accounting. We measure the natural flow available in the system, and we distribute that to the earliest right first.
Q. Stop there. The earliest --
A. The earliest right, the earliest right that's diverting water.
Q. Okay.
A. Regardless of whether it's natural-flow right for irrigation or it's a storage right. According to the priority, you fill those in sequence

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until we've exhausted the total amount of natural flow on that day. And that determines whether or not or which account that natural flow goes into.
Q. And if you use all of that to do the first fill in sequence of those water rights and rain is still happening and there's low demand, then what happens?
A. At that point we show all the storage accounts being full, we show some canals that have used storage, but because of the rain we see the reservoirs are all physically 100 percent full, so what that means is now we have that unallocated-for storage or refill storage physically in the system, and it needs to be allocated to someone on the day of allocation.
Q. And so then you move the day of allocation now from the May 28th original one to a different date?
A. Correct.
Q. And then you're going to now adjust people's storage accounts and essentially credit them back storage that they may have used prior to May 28th?
A. Correct.
Q. Okay. And it still rains. What would happen next?
A. Same situation. If the rain was sufficient to fill all water rights, the reservoir started

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increasing in storage, now the day of allocation gets moved further forward.
MS. McHUGH: Okay. Thank you. That's helpful. That's all for me. I think I'm now more clear.
MR. RIGBY: Good. I won't ask any questions that create any more confusion, so...
MR. ORR: I have only one question I'd like to ask you, Tony.

FURTHER EXAMINATION
BY MR. ORR:
Q. I believe earlier Mr. Simpson asked you if the remark we've been referring to were implemented or included in the decrees would it potentially have effect on the water supply for a spaceholder.
Do you recall that?
A. Yes.
Q. I think you said yes. I was wondering if you could explain to me what you meant by "yes." What kind of effect? What were you referring to?
A. I was assuming the water supply meant the total amount of water that would be available to the spaceholder during the irrigation season. If the spaceholder is limited to simply 100 percent of the space that he owns in the reservoir, he would be

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allocated that amount, and he would be limited to using that amount.
If we allow refill to occur, potentially that spaceholder would have not only his 100 percent allocated space to use, assuming he had already used that, he would have additional water to use under the additional refill.
And when John Simpson used the word "potential," potentially that could happen.
Q. So I'm still not sure I got to the point I wanted to. Let me try this again.
If this remark is implemented or put in the decrees, would it prevent a spaceholder's storage account from filling under the applicable storage right or reduce the chances of their filling of their space under the storage right?
A. It would only reduce the chances of the amount of water they got under refill.
Q. So it would only reduce the excess or surplus that might be available to them in the future?
A. Correct.
Q. And that's all?
A. Correct.
MR. ORR: Okay. That was the only point I had.
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FURTHER EXAMINATION
BY MR. SIMPSON:
Q. Well, Tony, when we talk about refill, we're talking about not only filling that could occur after you have 100 percent of your space filled and available to you, but also a refill, as it's been used in this deposition, that occurs after a flood-control release; correct? So it could be an amount that is not in addition to the 100 percent of what you're entitled to, but also up to 100 percent?
A. The refill in that situation would just be used to offset the storage that had previously filled but was released by the Bureau of Reclamation for flood control.
Q. That's right. Correct. And if the spaceholder did not utilize that water when it was released for flood control, then if the refill, as it's been used in this context, did not fill that space back up, it would affect the water supply available to them after the date of allocation -- or it could potentially? Excuse me.
A. Yes.
MR. SIMPSON: That's all I have.
MR. TUCKER: Could I ask one more question?
MR. SIMPSON: No. Get that on the record.

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FURTHER EXAMINATION
BY MR. TUCKER:
Q. Is there anyplace where the day of allocation is defined?
A. It's difficult to determine. There's not a common procedure the watermaster uses to publish that, other than through our weekly water reports that we distribute to water users.
Q. So if I Googled it, I probably wouldn't find it?
A. Probably not.
Q. All right. Thanks.
A. But I could look back in any year and determine that for you if you called the office.
MR. TUCKER: Yeah. Okay.
MS. McHUGH: Is there any more questions?
Okay. And, Jim, I do believe there might be, but I can help you on that.
THE COURT REPORTER: Are we off?
MS. McHUGH: But before we go off the record, I do just want to mention a couple things.
Are we concluding today's deposition for the purposes of what the notice was for, with the understanding that you can notice other depositions? Or did you want it, John, to be a continuing

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deposition?
MR. SIMPSON: Well, I think it has to be continuing, because I don't know what Kent or others may have wanted to ask.
MS. McHUGH: Okay. So I guess we're going to continue the deposition.
And I think, Tony, Chris will make an arrangement with whoever may need to do some follow-up questions or additional questions on that.
As to what you've said here today, the procedure, I guess, I would expect that you'd want to review the transcript up to this point and make any corrections to that?
THE WITNESS: Yes.
MS. McHUGH: Because the other continuing deposition may not occur for a while.
So is there a way to arrange that on a continuing deposition, Jeff?
THE COURT REPORTER: Yeah. He can review this volume.
MS. McHUGH: Okay. And then we can just sign this volume. So we'll have that sent to you guys to do that, then. All right.
MR. BROMLEY: Thanks.
MS. McHUGH: Nothing further. Thanks.

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MR. BROMLEY: Thanks.
(Deposition adjourned at 2:22 p.m.)
(Signature requested.)
-oOo-

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CERTIFICATE OF ANTHONY OLENICHAK

I, ANTHONY OLENICHAK, being first duly sworn, depose and say:
That I am the witness named in the foregoing deposition; that I have read said deposition and know the contents thereof; that the questions contained therein were propounded to me; and that the answers contained therein are true and correct, except for any changes that I may have listed on the Errata Sheet attached hereto.
DATED this ____ day of _____ 20___.

CHANGES ON ERRATA SHEET YES___ NO ___

_____
ANTHONY OLENICHAK

SUBSCRIBED AND SWORN to before me this ____ day of _____ 20___.

_____
NAME OF NOTARY PUBLIC
RESIDING AT _____
MY COMMISSION EXPIRES_____

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ERRATA SHEET FOR ANTHONY OLENICHAK

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SIGNATURE:_____

REPORTER'S CERTIFICATE

I, JEFF LaMAR, CSR No. 640, Certified Shorthand Reporter, certify:

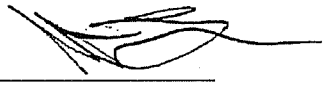
That the foregoing proceedings were taken before me at the time and place therein set forth, at which time the witness was put under oath by me.

That the testimony and all objections made were recorded stenographically by me and transcribed by me or under my direction.

That the foregoing is a true and correct record of all testimony given, to the best of my ability.

I further certify that I am not a relative or employee of any attorney or party, nor am I financially interested in the action.

IN WITNESS WHEREOF, I set my hand and seal this 17th day of February, 2012.



JEFF LaMAR, CSR NO. 640
Notary Public
Eagle, Idaho 83616
My commission expires December 30, 2017

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RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 10

Application For A Permit To Construct The American Falls Reservoir
And To Store The Unappropriated Waters Of The State Of Idaho
(Mar. 30, 1921)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Application for a Permit to Construct the AMERICAN FALLS Reservoir

~~29-2555~~ 01-2064

And to Store the Unappropriated Waters of the State of Idaho

Application No. R 21513
Permit No. R 269
District No. 70

1. Name of Applicant: United States of America acting through B.E. Stoutemyer, District Counsel, U. S. Reclamation Service.
Postoffice Address: ~~Boise~~ Burley County: ~~Ada~~ Cassia State: Idaho.

I. If applicant is a corporation, give:

(a) Date and place of incorporation:
(b) Amount of capital stock: $
(c) Amount paid in: $
(d) Names and addresses of directors:

II. The financial resources of the applicant are: (a) Cash on hand: $ Receipts from sale of public lands and all repayments into the Reclamation fund under the Federal Reclamation Act, Warren Act, etc.
(b) Treasury stock: $
(c) ~~Bonds to be issued: $~~
(d) Other resources:

2. Quantity of water to be stored Three Million (3,000,000) acre feet per annum.

3. Source of water supply Snake River, which is a tributary of Columbia River.

4. Water is to be used for: Domestic, irrigation and power purposes.

5. The outlet of the proposed reservoir is located North 62° West 2150 feet distant from the southeast corner of Section 30, T. 7 S., R. 31 E., B. M., and is in the SW¼SE¼ of Section 30, T. 7 S., R. 31E. B. M., County of Power.

6. Fill out either (a) or (b).

(a) The reservoir is located in the channel of Snake River.

(b) The reservoir is to be filled through the Feeder Canal, which has a width at bottom of ft., width at top of ft., depth of ft., average grade per mile ft., capacity cubic feet per second.

7. (a) The area of the high water line of the reservoir is 76,460 acres.

(b) The available capacity of the reservoir is Three Million (3,000,000) acre feet.

8. Height of dam: 100 feet; length of dam at top 5750 feet; length of dam at bottom 800 feet.
Material used in dam: Concrete, steel, rock and earth.

9. The estimated cost of proposed reservoir is $ Fifteen Million ($15,000,000) Dollars

10. Amount of land to be irrigated 940,000 acres of old lands; 500,000 " " new " said land being described in Use Permit mentioned in Paragraph 13 herein, which Use Permit is hereby referred to and made a part hereof.

11. The time required for the completion of such work is five (5) years.

13. The water stored in accordance with this permit will be conducted to the place of use through the Riley canal and other systems, constructed under the terms of Permit No. 15134, filed by United States, on Mch. 30, 1921.

BE IT KNOWN. That the undersigned hereby makes application for permit to construct a reservoir and to store the unappropriated waters of the State of Idaho as herein set forth.

United States, Applicant.

By B.E.Stoutemyer, Agent.
Dist.Counsel U.S.Rec.Ser.

269

Commissioner of Reclamation

Date of first receipt at office of ~~State Engineer~~ 2:30 p.m. March 30, 1921.

Returned to applicant for correction April 29, 1921.

Corrected application received May 3, 1921.

COMMISSIONER OF RECLAMATION

Approval of ~~State Engineer~~

The number of this Permit is R 269

Recorded in book R 1 Page 269 Approved May 18, 1921.

This is to certify that I have examined the within application for a permit to construct a reservoir and to store the unappropriated public waters of the State of Idaho, and hereby approve the same, subject to the following limitations and conditions:

Permit No. 15134

Bond in the sum of $ See Use/ to be filed on or before

Work to begin on or before and to continue diligently and uninterruptedly to completion, unless temporarily interrupted by circumstances over which the permit holder has no control.

One-fifth of the work above specified to be completed on or before November 18, 1923.

The whole of said work to be completed on or before May 18, 1926. 3/

Beneficial use of water stored in accordance herewith, to be made on or before April 23, 1936, 4/

as set out in Permit No. 15134 for the appropriation of the public waters of the State of Idaho, which is hereby referred to and made a part hereof.

Witness my hand this 18th day of May, 1921.

W. G. SWENDSEN,
~~State Engineer~~,
Commissioner of Reclamation

Remarks:

STATE OF IDAHO

Department of Reclamation

In the Matter of the Application for Extension of Time under Permits R-269 and 15134, under the Provisions of Chapter 135, Idaho Session Laws of 1923.

ORDER GRANTING EXTENSION OF TIME

Under date of April 6, 1923, E. B. Stoutemyer, acting for and on behalf of permit holder, United States Government, filed an application for extension of time in which proof of completion of works under these Permits may be made, the said request being made under the provisions of Chapter 135, Idaho Session Laws of 1923.

The said application for extension of time was accompanied by and supported with the affidavits of A. F. Banks and Barry Dibble.

Pursuant to the provisions of said Chapter, I have this day considered the said application and supporting affidavits and find that the said Permits are eligible for extension under the provisions of said Chapter 135:

NOW, THEREFORE, It is hereby ordered that the time within which proof of completion of works under the said Permits must be made and filed in the office of the Department of Reclamation, be and the same is, hereby extended to April 23, 1931, being an extension of five years.

WITNESS my hand this 7th day of April, 1923.

W. G. SWENDSEN,
Commissioner of Reclamation.

APPLICATION FOR A PERMIT TO CONSTRUCT THE

AMERICAN FALLS RESERVOIR,

And to Store the Unappropriated Waters of the State of Idaho.

Application No. R 21515
Permit No. R 269
District No. 70

1. Name of Applicant: United States of America acting through B. E. Stoutemyer, District Counsel, U. S. Reclamation Service.
Postoffice Address: Burley. County: Cassia. State: Idaho.
1. If applicant is a corporation, give:

(a) Date and place on incorporation:
(b) Amount of capital stock: $
(c) Amount paid in: $
(d) Names and addresses of directors:

II. The financial resources of the applicant are: (a) Cash on hand: $ Receipts from sale of public lands and all repayments into the Reclamation fund under the Federal Reclamation Act, Warren Act, etc.
(b) Treasury stock: $
(d) Other resources:

2. Quantity of water to be stored Three Million (3,000,000) acre feet per annum.

3. Source of water supply. Snake River, which is a tributary of Columbia River.

4. Water is to be used for: Domestic, irrigation and power purposes.

5. The outlet of the proposed reservoir is located North 62° West, 2150 feet distant from the southeast corner of Section 30, T. 7 S., R. 31 E., B.M., and is in the SW¼ SE¼ of Section 30, T. 7 S., R. 31 E.B.M., County of Power.

6. Fill out either (a) or (b).

(a) The reservoir is located in the channel of Snake River.
(b) The reservoir is to be filled through the Feeder Canal, which has a width at bottom of ft., width at top of ft., depth of ft., average grade per mile ft., capacity cubic feet per second.

7. (a) The area of the high water line of the reservoir is 76,460 acres.
(b) The available capacity of the reservoir is Three Million (3,000,000) acre feet.

8. Height of dam: 100 feet; length of dam at top 5750 feet; length of dam at bottom 800 feet. Material used in dam: Concrete, steel, rock and earth.

9. The estimated cost of proposed reservoir is $ Fifteen Million ($15,000,000) Dollars.

10. Amount of land to be irrigated 940,000 acres of old lands, 500,000 acres of new lands, said land being described in Use Permit mentioned in Paragraph 13 herein, which Use Permit is hereby referred to and made a part hereof.

11. The time required for the completion of such work is five (5) years.

13. The water stored in accordance with this permit will be conducted to the place of use through the Riley canal and other systems constructed under the terms of Permit No. 15134, filed by United States, on March 30, 1921.

BE IT KNOWN That the undersigned hereby makes application for permit to construct a reservoir and to store the unappropriated waters of the State of Idaho as herein set forth.

By United States, Applicant.
B.E. Stoutemyer, Agent.
Dist. Counsel U.S. Rec. Ser.

R-269

Date of first receipt at office of Commissioner of Reclamation 2:30 p.m. March 30, 1921.

Returned to applicant for correction April 29, 1921.

Corrected Application received May 3, 1921.

APPROVAL OF COMMISSIONER OF RECLAMATION

The number of this Permit is R 269.
Recorded in book R 1 Page 269 Approved May 18, 1921.

This is to certify that I have examined the within application for a permit to construct a reservoir and to store the unappropriated public waters of the State of Idaho, and hereby approve the same, subject to the following limitations and conditions:

Bond in the sum of $ See Use Permit No. 15134 to be filed on or before
Work to begin on or before and to continue diligently and uninterruptedly to completion, unless temporarily interrupted by circumstances over which the permit holder has no control.
One-fifth of the work above specified to be completed on or before November 18, 1923.
The whole of said work to be completed on or before May 18, 1926.
Beneficial use of water stored in accordance herewith, to be made on or before April 23, 1936, as set out in Permit No. 15134 for the appropriation of the public waters of the State of Idaho, which is hereby referred to and made a part hereof.

Witness my hand this 18th day of May, 1921.

W. G. SWENDSEN,
Commissioner of Reclamation

Use Permit No. 15134 described the land upon which the water is to be used, which includes lands in the following Sections, along with other described lands.

Township 7 South, Range 23 East.

Sections 28, 32, 33, 34, 35, and 36.

Township 8 South, Range 23 East.

Sections 1, 2, 3, 4, 7, 8, to 36, inclusive.

Township 9 South, Range 23 East.

Sections 1 to 7, inclusive.

Township 7 South, Range 24 East.

Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 20 to 36, inclusive.

Township 8 South, Range 24 East.

Sections 1 to 35, inclusive.

Township 7 South, Range 25 East.

Sections 6, 7, 18, 19, 20, 22, 25 to 36, inclusive.

Township 8 South, Range 25 East.

Sections 1 to 23 inclusive, 26, 27, 28, 29, and 30.

Township 7 South, Range 26 East.

Section 31.

R-269

Township 8 South, Range 26 East.

Sections 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18.

On July 9, 1942, License and Certificate of Water Right was issued under this Permit, in the amount of 1,800,000 acre feet per annum, with priority of March 30, 1921, of which amount, 1,700,000 acre feet represents the rated cubical contents of the reservoir and 100,000 acre feet is the maximum annual bank storage.

This License recites that the description and location of use is as follows:

"The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies: Aberdeen-Springfield Canal Co., American Falls Reservoir Dist., American Falls Reservoir Dist. No. 2, Blackfoot Irrigation Co., Burgess Canal & Irrig. Co., Butte & Market Lake Canal Co., Corbett Slough Ditch Co., Dilts Irrig. Co., Enterprise Canal Co., Enterprise Irrig. Dist., Harrison Canal & Irrig. Co., Hillsdale Irrig. Dist., Idaho Irrig. Dist., Lenroot Canal Co., Milner Low Lift Irrig. Dist., Minidoka Irrig., Dist., New Sweden Irrig. Dist., Peoples Canal & Irrig. Co,, Poplar Irrig. Dist., Progressive Irrig. Dist., Reid Canal Co., Rudy Irrig. Canal Co., Chas D. Smith (individual), Snake River Valley Irrig. Dist, Trego Ditch Co., Utah-Idaho Sugar Co., the lands in the upper Snake River Valley are supplied by means of exchange water. The names of the canal or ditches or other works by which said water is conducted to such place of use are: Aberdeen, Martin, North Side Project, Twin Falls Canal Co., Woodville, Gooding, Blackfoot, Burgess, Butte & Market Lake, Corbett, Dilts, Enterprise Canal Co., Enterprise Dist., Harrison, Idaho, Lenroot, Milner Low Lift, Minidoka, New Sweden, Peoples, Poplar Irrig. Dist., Progressive Irrig. Dist., Reid, Rudy, Smith, Snake River Valley, Trego, Utah-Idaho Sugar Co.

R-269

Form No. 18

State of Idaho

DEPARTMENT OF RECLAMATION

BOISE

Permit No. R-269
B.E. Stoutemyer, U.S.R.S.
Boise, Idaho.

Boise, Idaho,
May 21, 1921.

Dear Sir:

I enclose herewith above numbered permit. BE SURE AND NOTE LIMITATIONS AND CONDITIONS OF SAME as given under approval of State Engineer on the third page.

W. G. Swendsen,

Commissioner of Reclamation.

R-269

EXHIBIT 11

Permit No. R-269 and Permit No. 15134
Application For Extension Of Time
(Apr. 5, 1923)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

PERMIT NO. R-269 and

PERMIT NO. 15134.

APPLICATION FOR EXTENSION OF TIME.

To the Commissioner of Reclamation
of the State of Idaho.

Dear Sir:-

Pursuant to the provisions of Chapter 135 of the Idaho Session Laws of 1923, pages 196, 197, 198, 199 and 200, amending Section 5570 of the Compiled Statutes of Idaho, and particularly that provision thereof reading as follows:

> "Provided, further, That the time for completion of works under any permit involving the construction of a reservoir of more than two hundred thousand acre-feet capacity or for the appropriation of water to be impounded in such reservoir of more than two hundred thousand acre-feet capacity, may upon application to the state commissioner of reclamation supported by a showing that additional time is needed on account of the time required for organizing, financing and constructing works of such large size, be extended by the state commissioner of reclamation for an additional period of five years, but not to exceed ten years in all from the date of permit, and that extension of time for completion of works under this proviso shall automatically extend the time for completion of the twenty per cent required to be done in half the time, and for making proof of application of water to beneficial use. Provided, That no such extension shall be granted unless the applicant for such extension shall show that there has been actually expended toward the construction of said reservoir (including expenditures for the purchase of rights of way and property in connection therewith) at least $100,000."

the United States of America, the holder of Permits Nos. 15134 and R-269, acting for this purpose through B. E. Stoutemyer, District Counsel, U. S. Reclamation Service, its agent, respectfully applies to your honorable Commissioner for extension of time for completion of works

R-269

under said Permit No. 15134 until April 23, 1931, and under said Permit R-269 until May 18, 1931, and respectfully shows that said Permits Nos. 15134 and R-269 involve the construction of a reservoir of more than 200,000 acre-feet capacity, namely, that certain proposed reservoir known as the American Falls Reservoir, the same being more fully described in said Permits, and having a proposed capacity as set out in said Permits of about 3,000,000 acre-feet.

That additional time is needed for completion of works under said Permits on account of the time required for organizing, financing, and constructing works of the very large size involved in the said proposed American Falls Reservoir Project.

That the United States has actually expended in good faith under said Permits, and toward the construction of said American Falls Reservoir (including expenditures for the purchase of rights of way and property in connection therewith) more than Five Hundred Thousand ($500,000) Dollars.

That this application is supported by a showing consisting of the Affidavits of Messrs. Barry Dibble and F. A. Banks, which are hereto attached and made a part hereof.

Dated this 5th day of April, 1923.

UNITED STATES OF AMERICA,
Applicant.

By B. E. Stuntemeyer
District Counsel, U. S.
Reclamation Service.

Agent for the Applicant.

D-269

DEPARTMENT OF THE INTERIOR

UNITED STATES RECLAMATION SERVICE BES-FH.

OFFICE OF
DISTRICT COUNSEL

Boise, Idaho, April 5, 1923.

Mr. W. G. Swendsen,
State Commissioner of Reclamation,
Boise, I d a h o .

Dear Sir:-

Please find enclosed our application for extension of time for completion of works under Permit #R-269 and Permit #15134, both of which permits relate to the American Falls Reservoir.

This application is made under Chapter 135 of the Idaho Session Laws of 1923, pages 196 to 200, amending Section 5570 of the Compiled Statutes, and is supported by two affidavits, one by Mr. F. A. Banks, and one by Mr. Barry Dibble.

If any additional information is needed in connection with this application, please let me know and we will be glad to furnish it.

Very truly yours,

B. E. Stoutemyer

District Counsel.

enc.

CC-Chief Counsel.
Denver
American Falls

R-269

EXHIBIT 12

Order Granting Extension of Time
(Apr. 7, 1923)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

STATE OF IDAHO

Department of Reclamation

In the Matter of the Application for Extension of Time under Permits R-269 and 15134, under the Provisions of Chapter 135, Idaho Session Laws of 1923.	ORDER GRANTING EXTENSION OF TIME

Under date of April 6, 1923, E. B. Stoutemyer, acting for and on behalf of permit holder, United States Government, filed an application for extension of time in which proof of Completion of Works under these Permits may be made, the said request being made under the provisions of Chapter 135, Idaho Session Laws of 1923.

The said application for extension of time was accompanied by and supported with the affidavits of A. F. Banks and Barry Dibble.

Pursuant to the provisions of said Chapter, I have this day considered the said application and supporting affidavits and find that the said Permits are eligible for extension under the provisions of said Chapter 135:

NOW, THEREFORE, It is hereby ordered that the time within which proof of completion of works under the said Permits must be made and filed in the office of the Department of Reclamation, be and the same is, hereby extended to April 23, 1931, being an extension of five years.

WITNESS my hand this 7th day of April, 1923.

W. R. Swinburne

Commissioner of Reclamation

R-269

April 26, 1923.

Re: Permits R-269; 15134.

Mr. B. E. Stoutemyer,
District Counsel, U.S.R.S.,
Boise, Idaho.

Dear Sir:-

Enclosed you will find copy of the ORDER granting extension of time under the above permits, under the provisions of Chapter 135, Idaho Session Laws of 1923.

Very truly yours,

W. G. SWENDSEN,

Commissioner of Reclamation.

By

Chief Clerk.

Encl.

R-269

EXHIBIT 13

Order Granting Extension of Time For Completion of Works, In the matter of the Application of the United States of America for Extension of Time for Proof of Completion of Works Under Permits Nos. R-269 and 15237
(Jul. 10, 1926)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

STATE OF IDAHO

Department of Reclamation

Boise

In the Matter of the Application of the United States of America for Extension of Time for Proof of Completion of Works under Permits Nos. R-269 and 15237	Order Granting Extension of Time For Completion of Works

WHEREAS, The United States of America, acting through B. E. Stoutemyer, District Counsel, Bureau of Reclamation of the Department of the Interior, has made formal application for extension of time within which to submit proof of completion of works under the terms and provisions of Permits Nos. R-269 and 15237; and,

WHEREAS, The said proofs of completion of works are now required to be made on or before May 18, 1926 and July 29, 1926, respectively, and cover the full period of time allowed by statute for the making of such proof; and,

WHEREAS, THe said permits involve the construction of a dam and reservoir impounding more than 200,000 acre-feet of water; and

WHEREAS, Chapter 135, Session Laws of Idaho, 1923, provides that in cases involving the construction of a reservoir with a capacity in excess of 200,000 acre-feet, and wherein a satisfactory showing is made to the Commissioner of Reclamation that it will not be feasible nor practicable to complete such irrigation works within the period allowed by statute and by the permit for such completion and offering of proof of completion, and that there has actually been expended in excess of $100,000.00 on the construction of works contemplated by such permit; that the said time for completion of

R-269

WHEREAS, In the case of Permits R-269 and 15237, such satisfactory showing has been made:

NOW, THEREFORE, The time set for proofs of completion of works under Permits R-269 and 15237 is hereby extended to May 18, 1931 and July 29,1931, respectively, and such extension of time for completion of works under these permits shall automatically extend the time for completion of one-fifth of the work required to be done in one-half of the time, and for making proof of application of water to beneficial use.

WITNESS, My hand and the seal of the Department of Reclamation, this the 10th day of July, 1926.

W. G. SWENDSEN
Commissioner of Reclamation

(SEAL)

R-269

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 14

Affidavit of F.A. Banks (Mar. 31, 1923)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

AFFIDAVIT OF F. A. BANKS.

STATE OF IDAHO,)
) ss.
COUNTY OF POWER.)

F. A. BANKS, being first duly sworn deposes and says:

That he is an irrigation engineer and has been employed in irrigation engineering work by the United States Reclamation Service for more than 16 years last past. That he is now employed by the United States as the Engineer in charge of the proposed American Falls Reservoir.

That affiant is familiar with the work involved in organizing, financing and constructing the said reservoir and the time which may reasonably be required for the completion thereof, and is also familiar with the work heretofore done by the United States under Permits Nos. 15134 and R-269 toward the construction of said reservoir, and the amount expended thereon by the United States.

And affiant further deposes and says that additional time is needed for completion of works under said Permits on account of the time required for organizing, financing, and constructing works of the very large size involved under said Permits.

That the said Permits Nos. 15134 and R-269 involve the construction of a reservoir of more than two hundred thousand (200,000) acre-feet capacity, namely, the American Falls Reservoir, having a capacity as set out in said Permits of about Three Million (3,000,000) acre-feet.

R-269

That the United States has actually expended toward the construction of said reservoir (including expenditures for the purchase of rights of way and property in connection therewith) more than five hundred thousand ($500,000) Dollars.

E. A. Barker

Subscribed and sworn to before me this 31st day of March, 1923.

Notary Public.

Residing at: American Falls, Idaho.

My commission expires: Nov. 18, 1924

(seal)

D-210

EXHIBIT 15

Affidavit of Barry Dibble (Mar. 31, 1923)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

AFFIDAVIT OF BARRY DIBBLE.

STATE OF IDAHO,)
) ss.
COUNTY OF POWER.)

BARRY DIBBLE, being first duly sworn deposes and says:

That he is an irrigation and electrical engineer and has been employed by the United States for more than Seven years last past as Project Manager of the Minidoka Project. That his said employment as Project Manager of the Minidoka Project includes work in connection with the proposed American Falls Reservoir.

That affiant is familiar with the work involved in organizing, financing and constructing the said reservoir and the time which may reasonably be required for the completion thereof, and is also familiar with the work heretofore done by the United States under Permits Nos. 15134 and R-269 toward the construction of said reservoir, and the amount expended thereon by the United States.

And affiant further deposes and says that additional time is needed for completion of works under said Permits on account of the time required for organizing, financing, and constructing works of the very large size involved under said Permits.

That the said Permits Nos. 15134 and R-269 involve the construction of a reservoir of more than two hundred thousand (200,000) acre-feet capacity, namely, the American Falls Reservoir, having a capacity as set out in said Permits of about Three Million (3,000,000) acre-feet.

R-269

That the United States has actually expended toward the construction of said reservoir (including expenditures for the purchase of rights of way and property in connection therewith) more than five hundred thousand ($500,000) Dollars.

Barry Dibble

Subscribed and sworn to before me this 31st day of March, 1923.

Notary Public.

Residing at: American Falls, Idaho

(seal) My commission expires: Nov. 18, 1924

D-214

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 16

Decree 661, *Woodville Canal Co. v. Clark & Edwards Canal & Irr. Co., et al*
(D. Idaho, Jun. 25, 1929)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

"EXHIBIT A"

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF IDAHO, EASTERN DIVISION

WOODVILLE CANAL COMPANY, a corporation,
Plaintiff,

vs.

CLARK AND EDWARDS CANAL AND IRRIGATING COMPANY, a corporation, et al,
Defendants.

651

D E C R E E

This cause came on to be heard this 25th day of June, 1929, Paul T. Peterson of Idaho Falls, Idaho, appearing for the Plaintiff and E. L. Soule of St. Anthony, Idaho appearing for the Defendant and Gross Complainant North Fork Reservoir Company, John F. MacLane of Salt Lake City, Utah and Clency St. Clair of Idaho Falls, Idaho, appearing for the defendant and Cross Complainant Utah Power & Light Co., F. A. Miller of St. Anthony, Idaho and B. H. Miller of Idaho Falls, Idaho, appearing for the Defendants and Cross Complainants Enterprise Irrigation District, Roxana Canal Company, Farmers Friend Canal Company, Ltd., and Consolidated Farmers Canal Company, C. W. Poole of Rexburg, Idaho, appearing for the Defendants and Cross Complainants City of Rexburg and Rexburg Irrigation Co; Geo. H. Lowe of Ogden, Utah, appearing for the Defendant and Cross Complainant: Twin Groves Canal and Irrigation Co., B. E. Stoutemyer, District Counsel for the United States Reclamation Service of Portland, Oregon, and H. E. Ray, United States District Attorney for the District of Idaho appearing for the Defendants The Secretary of the Interior of the United States, S. T. Lowe of Burley, Idaho, appearing for the Defendants and Cross Complainants Minidoka Irrigation District and Burley Irrigation District, James R. Bothwell of Twin Falls, Idaho appearing for the defendants Twin Falls Canal Company and American Falls Reservoir District, Walters, Parry & Thoran, C. A. Parry of Twin Falls, Idaho and A. B. Barclay of Jerome, Idaho, appearing for the defendants North Side Canal Company, F. J. Cowan of Blackfoot, Idaho appearing for the defendants and Cross Complainants Peoples Canal Co., Watson Slough Ditch Company, Danskin Ditch Co., and New Lavaside Canal Co., N. D. Jackson of St. Anthony, Idaho, appearing for the Defendants and Cross Complainants Wm. B. Heyburn, William Kooch and Fannie B. Preufert, O. A. Johannesen of Idaho Falls, Idaho appearing for himself as a Defendant and for the Defendants Long Island Canal Company and Independent Irrigation Company and Otto E. McCutcheon of Idaho Falls, Idaho, appearing for the following named Defendants, J. H. Stone Ditch, Butler Island Canal Company, Enterprise Canal Company, Clark and Edwards Canal and Irrigating Company, Dills LaBelle Irrigation Company, Lowder Slough Canal Company, North Rigby Irrigation Canal Company, West LaBelle Irrigation Company, Parks and Lewisville Irrigation Company, Progressive Irrigation District, Kite and Nord Ditch Company, White Ditch, Rudy Canal and Irrigation Company, LaBelle Irrigation Company, Cheney Ditch, Farmers Friend Irrigation Company, Burgess Canal and Irrigating Company, Snake River Valley Irrigation District, Reid Canal Company, Texas Slough Irrigation Canal Company, Liberty Park Irrigation Company, Harrison Canal and Irrigation Company, New Sweden Irrigation District, Riverside Ditch Company, Wm. J. Kremer, E. W. Forbush, John E. Ellis, J. R. Arnsberger and Trego Ditch Com-

JRP035114

pany, and it appearing that the following named persons have been regularly served with process in the above entitled action while the same was pending in the District Court of the Ninth Judicial District of the State of Idaho, in and for the County of Bonneville and before the removal of said cause from the said Court to this Court, the Defaults of the following named defendants having been duly entered: Shelley Irrigation District, a public corporation, Utah-Idaho Sugar Company, a corporation, Salem Union Canal Company, a corporation, Yellowstone Canal Company, a corporation, Salem Irrigation Company, a corporation, Fall River Canal & Irrigation Company, a corporation, Chester Canal Company, a corporation, Kerr Ditch Company, a corporation, Marysville Canal & Improvement Company, a corporation, Farmers Own Ditch Company, a corporation, Teton Manufacturing Company, a corporation, Mary H. Burch, Island Ward Canal Company, a corporation, Annie Wilson, Island Canal Company, a corporation, John R. Scott, T. J. Durant, James Prescott, Poplar Irrigation District, a public corporation, D. E. Rathbun, O. T. Edwards, J. W. Hays, O. E. Peterson, W. J. Garrison, Elizabeth Garrison, Reuben L. Scott, L. A. Hartert, J. T. Edwards, S. N. Cable, W. S. Barrett, W. T. Pettinger, Canyon Creek Canal Company, a corporation, Samuel W. Olderman, W. O. Hastings, Hyrum E. Egbert, Gust Chase, Albert L. McReynolds, Jas. E. Harris, Louis Nelson, Joseph Ord, Harrison Canal & Irrigation Company, a corporation, H. C. Frew, Osgood Land & Water Company, a corporation, John T. Fisher, Ross Comstock, Julius Allen, Ada Allen, Mary E. Fisher, New Lavaside Canal Company, a corporation, Teton Valley Power & Milling Company, a corporation, John R. Clawson, Earl V. Ford, Samuel A. Trude, Winnifred Trude, John F. Sack, Walter R. Gulteman, Frank A. Edwards, W. C. Trude, Esther Trude, Charles A. Thompson, J. Leo McKerrigan, Richard Rippling, Oswald L. W. Jorgenson, Marie Hansen, Ezra Hansen, Julian M. DeCoster, David K. Bowen, Charles Groseclose, Peter Groseclose, O. W. Anderson, Sunnydell Irrigation District, a public corporation, Aberdeen-Springfield Canal Company, a corporation, Blackfoot Irrigation Company, a corporation, Corbett Slough Ditch Company, a corporation and Butte & Market Lake Canal Company, a corporation.

And whereas the parties to said cause now appearing herein have made and entered into the following Stipulation:

IN THE DISTRICT COURT OF THE UNITED STATES, FOR THE DISTRICT OF IDAHO, EASTERN DIVISION

WOODVILLE CANAL COMPANY,
a corporation,
Plaintiff.

vs.

STIPULATION.

CLARK AND EDWARDS CANAL AND IRRIGATING COMPANY, et al
Defendants.

1.

A. It is hereby stipulated and agreed that the priority dates heretofore decreed by the District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Twin Falls, in the case entitled Twin Falls Canal Company, plaintiff, vs. Charles N. Foster, et al., defendants, dated and filed June 20th, 1913, and signed by Edward A. Walters, District Judge, hereinafter referred to as the Foster decree, and the District Court of the Sixth Judi-

JRP035115

cial District of the State of Idaho, in and for the County of Fremont, in the case entitled Rexburg Irrigation Company, et al, plaintiffs, vs. Teton Irrigation Canal Company, et al, defendants, dated and filed December 16th, 1910, and signed by Judge J. M. Stevens, hereinafter referred to as the Rexburg decree, shall not be changed or disturbed by the decree to be entered herein; and it is not the purpose of this stipulation to agree to any changes in priorities awarded by said Foster and Rexburg decrees, or to waive any benefits or rights vested under said decrees.

B. It is hereby stipulated and agreed that none of the water rights to be decreed in this cause shall be awarded dates of priority earlier than January 22nd, 1916, except as appears in paragraph 3E - 3O hereof.

C. Further stipulated and agreed that in the distribution of water under the decree to be entered in this cause of action, the watermaster or other officer to be in charge of such distribution, shall give precedence and consider as prior and superior to the rights to be decreed in this suit, as set forth in paragraph 3 A hereof, all rights, both decreed rights adjudicated in said Foster and Rexburg decree, and license rights, having dates of priority earlier than January 22nd, 1916, including the rights for storage in the Jackson Lake Reservoir under filings made in the State of Wyoming, and the decree to be entered herein shall so provide.

2.

It is further stipulated and agreed that the rights to be decreed in the above entitled cause of action and listed and set out in paragraph three A hereof, shall be for use only on lands which have been heretofore irrigated from the waters of the Snake River and its tributaries, and shall not be subject to transfer to any lands not heretofore irrigated, and the decree herein shall provide that if the owners, or their successors in interest, of any of the rights as listed and set out in paragraph Three A hereof, to be decreed herein shall attempt to transfer the same to lands not heretofore irrigated, such rights shall immediately lapse and become void and of no effect.

3.

The plaintiff and all defendants who join in this stipulation agree that if this stipulation is signed by the attorneys for the owners of all the ditches and rights listed in this paragraph, additional water rights under priority of January 22nd, 1916, may be decreed to the owners of the following ditches in the amount set after the name of each of the following ditches, to-wit: South Fork and main Snake River:

3 A	J. H. Stone Ditch	40	miner's inches
	Butler Island Ditch	500	" "
	Parsons Ditch	900	" "
	Enterprise Canal Company Ditch	5100	" "
	Clark and Edwards Ditch	1500	" "
	Woodville Ditch	1900	" "
	Dills Ditch	500	" "
	Lowder Slough Ditch	1650	" "
	North Rigby Ditch	1500	" "
	West Labelle Ditch	1000	" "
	Parks and Lewisville Ditch	4200	" "
	Progressive Irrigation District Ditch	15000	" "
	Kite and Nord Ditch	250	" "

3.

White Ditch	500	"	"
Rudy Canal & Irrigation Company Ditch	6000	"	"
LaSalle Irrigation Company Ditch	1500	"	"
Cheney Ditch	300	"	"
Wearyrich Ditch	1500	"	"
Farmers Friend Ditch	8000	"	"
Burgess Ditch	10000	"	"
Snake River Valley Irrigation District Ditch	3400	"	"
Reid Canal Ditch	2000	"	"
Rigby Canal Ditch	4900	"	"
Liberty Park Irrigation Company Ditch	800	"	"
Texas Slough Irrigation & Canal Company Ditch	800	"	"
Wm. J. Kramer Ditch (Mattsen & Craig)	700	"	"
H. W. Forbush Ditch (Cheney Ditch)	100	"	"
John E. Ellis Ditch	100	"	"
J. R. Arnsberger Ditch	150	"	"
Peoples Canal Company Ditch	10000	"	"
Watson Slough Canal	1800	"	"
Danskin Ditch Company Ditch	1000	"	"
Harrison Canal Company Ditch	4600	"	"
New Layaside Canal Company Ditch	1500	"	"
Riverside Canal Company Ditch	1500	"	"
New Sweden Irrigation District Ditch	7256	"	"
Trego Ditch Company	900	"	"
North Fork Tributaries:			
Enterprise Irrigation District Ditch	1500	"	"
Roxana Canal Company Ditch	1500	"	"
Farmers Friend Canal Company Ditch	2350	"	"
Consolidated Farmers Canal	5900	"	"
Twin Groves Canal and Irrigation Company Ditch	1500	"	"

3 B The following license rights may also be decreed as hereinafter listed for the amounts not exceeding the quantities stated after the name of the canal owners with dates of priority as indicated in each respective case, to-wit:

To the North Fork Reservoir Company of the waters of Henry's Lake and its tributaries to the amount of 70350 acre feet per annum for storage, and of the waters of Dry Creek to the amount of 4000 acre feet per annum for storage, all to be stored in its reservoir at Henry's Lake, Idaho, with a priority date of May 15th 1917.

William B. Reyburn, 3.2 second feet, Aug. 27, 1910
William B. Reyburn, 1.5 " " , Oct. 5, 1912
William Kooch 6.0 " " , Sept. 15, 1913
Fannie B. Fruefart, 1.1 " " , Sept. 30, 1915.

3 C. To the defendant and cross complainant Utah Power and Light Company for power purposes as follows:

JRP035117

Under State of Idaho license No. 9242, 1000 cubic feet per second, priority date January 16th, 1913.

Under State of Idaho license No. 11921, 500 cubic feet per second, with priority date November 1st, 1915.

Under State of Idaho license No. 16006 for 1000 cubic feet per second with priority date March 7th, 1924.

Under State of Idaho license No. 10,000, 700 cubic feet per second with priority date December 20th, 1913.

Under State of Idaho license No. 445, 1500 cubic feet per second, priority date December 29th, 1905.

Under State of Idaho License No. 11,600, 100 cubic feet per second, priority date September 7th, 1915.

Under State of Idaho water permit and the license to be issued thereunder, 1500 cubic feet per second, with priority date November 14th, 1924.

It is understood however, that each of the parties to this stipulation reserves the right to contest any and all claims of any and all parties who do not join in this stipulation.

4.

It is further stipulated and agreed that there shall be decreed in the above entitled cause of action, to the Secretary of the Interior of the United States, and his successors in office, for use upon the various projects which have heretofore or may hereafter become entitled to the same by reason of contracts with the United States therefor, the water filed upon by the United States in connection with the construction of the American Falls Reservoir under permit number 15134, and reservoir permit number R-259, under date of priority of March 30th, 1921, the amount of water to be decreed to the Secretary of the Interior of the United States and his successor in office for such use under said date of priority of March 30th, 1921, to be One Million Seven Hundred Thousand (1,700,000) acre feet per annum for storage in the American Falls Reservoir and Eight Thousand (8,000) second feet for direct diversion. It is understood and agreed that paragraph two hereof does not apply to the said rights of priority of March 30, 1921, provided for in this paragraph or the rights decreed in the Foster and Rexburg decrees.

5.

The rights decreed to the parties to this stipulation or their predecessors in interest in that certain decree commonly known as the Foster decree and in that certain decree commonly known as the Rexburg decree, both as to the dates of priority and amounts of the rights are recognized and binding upon all of the parties of this stipulation, to the same extent as if the said rights included in the said Foster decree had been included in the said Rexburg decree and the said rights in the Rexburg decree had been included in the Foster decree, and it is agreed that all of the provisions of both decrees shall be considered binding upon all of the parties to this stipulation, but all the parties to this stipulation reserve the right to contest each and every right claimed by parties who do not join in this stipulation.

6.

It is further stipulated and agreed that there is at present an action pending in the United States District Court in and for the District of Idaho, Southern Division, wherein the North Side Canal Company, Limited, is plaintiff,

JRP035118

and Twin Falls Canal Company, et al., are defendants, which said action is being brought to alter or change certain provisions of the Foster Decree to give and allow North Side Canal Company, Limited, in addition to the maximum right of 3000 cubic feet per second, provided in the Foster decree, further and additional right of 300 cubic feet to be diverted at Milner Dam with a priority of December 23, 1915; and that there is at present pending an action in the District Court of the Eleventh Judicial District of the State of Idaho, in and for the County of Twin Falls, wherein Twin Falls Canal Company is plaintiff and C. Clyde Baldwin, et al, are defendants in which a decree is sought to be entered giving and granting unto the said Twin Falls Canal Company, in addition to the right granted it under the Foster decree, a further right of 600 cubic feet per second, to be diverted at Milner Dam, with a priority date of December 23, 1915.

And it is stipulated and agreed that said rights in this paragraph above mentioned and each of them, shall be for the purpose of this stipulation, and the decree to be entered herein deemed to be of the same force and effect as if they had been included in the original Foster Decree; and that wherever the term "Foster Decree" is used herein, it shall be deemed to include the two rights in this paragraph above mentioned and that said rights shall have any and all rights and privileges herein granted to the other rights enumerated in the said Foster decree, and that said rights shall be decreed herein as follows:

Twin Falls Canal Co. 600 sec. ft. priority date Dec. 22, 1915.
North Side Canal Co. 300 " " " " " Dec. 23, 1915.

7.

It is further stipulated and agreed that nothing herein contained shall be deemed to in any way waive, limit, change or vary any right or rights that the North Side Canal Company, Limited, may obtain under that certain permit No. 15001, with a priority date of August 6, 1920, for the diversion of 1500 cubic feet per second of time of the waters of Snake River at or near Milner Dam, (which said permit is claimed to be a valid and subsisting permit at this time), if, as and when actual diversions are made thereunder or proofs are submitted thereunder or license issued thereon, in conformity with the Statutes of the State of Idaho.

8.

It is stipulated and agreed that the rights of contract holders and any others beneficially interested, now or hereafter claiming or having storage reservoir rights in American Falls Reservoir shall not be affected or determined by the decree to be entered in this action, as to the use to be made of the waters decreed, under such decree, to the Secretary of the Interior under Permits described in Paragraph No. 4, of this Stipulation, the same being Permits No. 15134 and R-269.

9.

Should the proposed reservoir at Beckler Meadows be constructed nothing herein contained will be construed to determine the extent of the rights or priorities under permits No. 15134 and R-269 as against the said Beckler Meadows

JRP035119

Reservoir but that question shall be left for further determination.

Paul T. Peterson
Attorney for Plaintiff, Woodville Canal Company.
F. L. Soule
Attorney for Defendant and Cross-Complainant, North Fork Reservoir Company.
John F. MacLane and Clency St. Clair
Attorneys for Defendant and Cross-Complainant, Utah Power & Light Co.
F. A. Miller & B. H. Miller
Attorneys for Defendant and Cross-Complainant, Enterprise Irrigation District, Noxana Canal Company, Farmers Friend Canal Co., and Consolidated Farmers Canal Co.
C. W. Poole
Attorney for Defendant and Cross-Complainant, City of Rexburg and Rexburg Irrigation Co.
Geo. H. Lowe
Attorney for Defendant and Cross-Complainant, Twin Groves Canal and Irrigation Co.
R. E. Stoutemyer, H. F. Ray
Attorneys for Defendant, the Secretary of the Interior of the United States.
S. T. Lowe
Attorney for Defendants, Minidoka Irrigation District and Burley Irrigation District.
James R. Bothwell
Attorney for Defendant, Twin Falls Canal Company.
Walters, Parry & Thoman,
A. B. Barclay
Attorneys for Defendant, North Side Canal Company.
F. J. Cowan
Attorney for Defendant, Peoples Canal Co., Watson Slough Ditch Co., Danskin Ditch Co., New Lavaside Canal Co.
M. D. Jackson
Attorney for Defendant, Wm. B. Heyburn.
M. D. Jackson
Attorney for Defendants, William Keogh and Fannie B. Preuert.
James R. Bothwell
Attorney for Defendant, American Falls Reservoir District.
The defendants represented by the undersigned, having filed no answers or crossbill in said controversy, have no objections to the foregoing stipulation.
C. A. Johannesen, Attorney for several parties named as defendants.
Otto E. McCutcheon
Attorney for the following named defendants: J. H. Stone Ditch, Butler Island Canal Company, Enter-

JRP035120

prise Canal Company, Clark and Edwards Canal and Irrigating Company, Dills LaBelle Irrigation Company, Lower Slough Canal Company, North Rigby Irrigation Canal Company, West LaBelle Irrigation Company, Parks and Lewisville Irrigation Company, Progressive Irrigation District, Rite and Ford Ditch Company, White Ditch, Rudy Canal and Irrigation Company, LaSalle Irrigation Company, Cheney Ditch, Farmers Friend Irrigation Company, Burgess Canal and Irrigating Company, Snake River Valley Irrigation District, Reid Canal Company, Texas Slough Irrigation Canal Company, Liberty Park Irrigation Company, Harrison Canal and Irrigation Company, New Sweden Irrigation District, Riverside Ditch Company, Wm. J. Kremer, H. W. Forbush, John E. Ellis and J. H. Arnsberger, Trego Ditch Company.

Now therefore, the said Stipulation is hereby approved and confirmed by the Court and adopted as a part of this Decree, and after consideration and after hearing counsel for the respective parties now appearing herein, and the Court being fully informed and advised in the premises:

It is ordered, adjudged and decreed that the several parties Plaintiff and Defendants and Cross Complainants herein named do have judgment respectively for a right to use, subject to the terms of the said Stipulation for irrigation and other purposes, the respective number of miners inches of water and or, acre feet, from Snake River and its tributaries (each 50 inches thereof to be equal to a flow of one cubic foot of water per second, as prescribed by the laws of Idaho) their priorities and quantities to be in accordance with the schedule hereinafter set out.

It is further ordered, adjudged and decreed that the right to use said waters become appurtenances of the respective tracts of land to be irrigated from the respective ditches or canals as specified.

FROM SOUTH FORK AND MAIN SNAKE RIVER.

J. H. Stone, 40".

Headgate located on Ross Ditch, 1 mile west of Great Feeder headgate, on Dry Bed.

Land: W½SE¼, SW¼NE¼ Section 27, Tp. 4 North, Range 40 E. B. M.

BUTLER ISLAND CANAL COMPANY, a corporation, 500".

Headgate located in the Northwest corner of the Northwest Quarter of Section 35, Tp. 4 North, Range 40 E. B. M.

Land: Sections 21, 22, 26, 27, and 28 of Township 4 North Range 40 E. B. M., containing an irrigable area of approximately 1800 acres.

PARSONS DITCH COMPANY, a corporation, 900".

JRP035121

Headgate located in the NW¼ NW¼ of Section 5, Tp. 3 South, Range 35 E. B. M., in Bingham County, State of Idaho.

Land: SE¼, SE¼ SW¼ Section 1; NW¼ NW¼ Section 12; NE¼ NE¼ Section 11; SW¼ NW¼ Section 12; SE¼ NE¼, E½ of Lot 1 and Lot 2 Section 11; NE¼ SW¼, W½ of Lot 2 Section 11; NW¼ NW¼ SW¼, N½ SW¼ Section 11; N½N½SE¼ Section 10; S½ NW¼ SE¼, NW¼ SE¼ Section 10; S½ SE¼ Section 10 all in Township 3 South Range 34 E. B. M.

ENTERPRISE CANAL COMPANY, a corporation, 3100".

Headgate located in the southeast corner of the Southeast Quarter of Section 36, Tp. 4 North Range 40 E. B. M., in Jefferson County, State of Idaho.

Land: In Township 3 North, Range 40 E.B.M., in Bonneville County, Idaho:

In Section 6: N½, N½ of S½, S½ of SW¼ and SW¼ of SE¼;

In Section 7: W½ of NE¼, E½ of NW¼, NW¼ of NW¼, NE¼ of SW¼, NW¼ of SE¼;

In Township 4 North, Range 39 E. B. M., Jefferson County, Idaho;

In Section 36: N½ and the SW¼

In Township 3 North, Range 39 E. B. M., Bonneville County, Idaho;

In Section 1: W½ of NE¼, SE¼ of N½; S½;

In Section 2: S½ of SW¼, SE¼ of SE¼;

In Section 10: S½ of SE¼;

In Section 11: S½ of NE¼, SW¼ of NE¼, E½ of SW¼; and NE¼ of SW¼;

In Section 12: N½ of NE¼;

In Section 14: NW¼ and NW¼ of SW¼;

In Section 15: NE¼, N½ of SE¼ and SW¼;

In Section 16: NE¼ of SE¼;

In Section 19: S½ of NW¼, SW¼;

In Section 20: NW¼, SE¼ of NE¼, NE¼ of SE¼;

In Section 21: NW¼, SW¼ of NE¼, NW¼ of SW¼;

In Section 30: NW¼ and N½ of SE¼;

In Township 4 North, Range 40 E. B. M., Jefferson County, Idaho;

In Section 21: S½ of NW¼ and N½ of SW¼;

In Section 28: S½ of S½ and N½ of SW¼;

In Section 27: S½ of SE¼ and SW¼;

In Section 28: S½ of S½;

In Section 29: S½ of S½;

In Section 30: E½ of NE¼, SE¼, S½ of SW¼;

Entire Section 31.

In Section 32: W½ of SW¼ and N½ of NE¼;

In Section 33: N½ of N½;

In Section 34: NW¼ of NW¼,

In Section 35: SW¼ of NE¼; SE¼ of NW¼; W½ of SE¼;

Containing approximately 6230 acres of irrigable land.

CLARK & EDWARDS CANAL & IRRIGATING COMPANY, a corporation, 1500".

Headgate located in the Southwest Quarter of Section 19, Tp. 4 North, Range 40 E. B. M., in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 39 East B. M., the South half of Section 13, all of Section 14 lying south of the dry bed, so called, the East half and the Northwest Quarter of Section 15, the Northeast Quarter of Section 16, the North half of the North Half of Section 23, the North half and the North half of the south half of Section 24.

In Township 4 North of Range 40 E. B. M., the Southwest quarter of Section 18, Section 19 and section 20, contain-

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ing a total irrigable area of approximately 3000 acres.

WOODVILLE CANAL COMPANY, a corporation, 1900".

Headgate located about 3700 feet up stream from the south Quarter corner of Section 34, Tp. 2 North, Range 37 E. B. M., on the west bank of Snake River, in Bonneville County, Idaho.

Land: East half of the Southwest Quarter; East half of the Northwest Quarter of the Southwest Quarter, Southeast Quarter of Section 7; Southwest Quarter of Section 8; Southwest Quarter; South 100 rods of the West half of the Northeast Quarter; West half of the Southeast Quarter; Southeast Quarter of the Southeast Quarter, Section 9; West half of the Southwest Quarter Section 10, all of the foregoing described lands lying in Township One (1) North, Range Thirty-seven (37) E. B. M., in Bonneville County, Idaho; North half; North half of the Southwest Quarter; North half of the Southeast Quarter North of Snake River, being approximately fifty acres; all in Section 16; North half; North half of the South west Quarter; all of the Southeast Quarter lying north of Snake River, being approximately 120 acres; all in Section 17; entire Section 18; West half Section 19; Southwest Quarter of Southwest Quarter Section 29; North west Quarter of the Northwest Quarter; West half of Southwest Quarter of the Northwest Quarter Section 32; Northeast Quarter of the Northeast Quarter; East half of Northwest Quarter of Northeast Quarter; North ten acres of the Southeast Quarter of the Northeast Quarter Section 31, all lying in Township One North of Range thirty-seven East B.M., in Bingham County, Idaho; Northeast Quarter of Section 24, Township one north, Range 36 E.B.M., Bingham County, Idaho.

DILTS LA BELLE IRRIGATION COMPANY, a corporation, 500".

Headgate from Snake River or its tributaries at a point where cross-complainant's headgate is located in the Northeast corner of the Southeast Quarter of Section 10, Township 4 N. Range 39 East Boise Meridian, in Jefferson County, State of Idaho, where the cross-complainant maintains and at all of said times has maintained a headgate and instrumentalities and necessary works for the diversion of said waters, and from which point cross-complainant or its grantors and predecessors in interest constructed a canal and irrigation system including laterals, checks, and headgates for the purpose of making said diversion of water from Snake River and to transport or convey said waters to lands of the stockholders of the cross-complainant for use by said stockholders for irrigation and domestic purposes, and that said works and canal system are now maintained, operated, and in use as heretofore.

Land: The West half of Section Three, the East Half of Section Four, the West half of Section Nine and the West half of Section Ten, all in Township 4 North of Range 39 East Boise Meridian, containing a total irrigable area of approximately 1280 acres.

LOWER SLOUGH CANAL COMPANY, a corporation, 1850".

Headgate is located in the corner of the Section 18, Township 4 North, Range 40 East Boise Meridian.

Land: Sections Seven and Eighteen, Township Four North Range 40 E.B.M.; Sections Twelve and Thirteen, Township Four North, Range 39 E.B.M.

NORTH RIGBY IRRIGATION CANAL COMPANY, a corporation, 1500".

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Headgate located in the southeast corner of the Southwest quarter of the Northwest Quarter of Section 9, Township 4 North, Range 39 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Township 4 North, Range 38 East Boise Meridian: In Section 1, $S\frac{1}{2}$; in Sec. 2, $SE\frac{1}{4}$, $S\frac{1}{2}$ $NE\frac{1}{4}$, $NW\frac{1}{4}$ $NE\frac{1}{4}$, $E\frac{1}{2}$ $NW\frac{1}{4}$, $SW\frac{1}{4}$ $NW\frac{1}{4}$; In Section 12: $NE\frac{1}{4}$.

In Township 4 North, Range 37 East B. M.

In Section 5: $S\frac{1}{2}$ of $SW\frac{1}{4}$;

In Section 6: $S\frac{1}{2}$ of $S\frac{1}{2}$; $NW\frac{1}{4}$ of $SW\frac{1}{4}$;

In Section 7: $N\frac{1}{2}$

In Section 8: $NW\frac{1}{4}$, $N\frac{1}{2}$ $SW\frac{1}{4}$, $SW\frac{1}{4}$ $NE\frac{1}{4}$ and $NW\frac{1}{4}$ of $SE\frac{1}{4}$.

Containing a total irrigable area of approximately 1800 acres.

West La Belle Irrigation Company, a corporation, 1000".

Headgate is located in the Northeast corner of the Southwest Quarter of Section 10, Township 4 North Range 39 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 39 East Boise Meridian, the West half of Section 4, and entire Section 5;

In Township 5 North of Range 39 East Boise Meridian, the South Half and the Southeast Quarter of the Northeast Quarter of Section 31, the Southwest Quarter of Section 32; entire Section 6, the South half of the Southeast Quarter, the Southeast Quarter of the Southwest Quarter and the Northeast Quarter of the Southeast Quarter of Section 36;

Township 4 North of Range 38 East Boise Meridian, the Northeast Quarter of the Northeast Quarter of Section 1;

Containing a total irrigable area of approximately 2460 acres.

PARKS AND LEWISVILLE IRRIGATION COMPANY, a corporation, 4200".

Headgate located near center of $NE\frac{1}{4}$ of the Southeast Quarter of Section 9, Township 4 North, Range 39 East Boise Meridian, on the dry bed in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 37 East, in Sections 1, 2, 11, 12, 13, and 14.

In Township 4 North of Range 38 East, in Sections 1 to 12, both numbers inclusive, and 14 to 18, both numbers inclusive.

In Township 4 North of Range 39 East B. M., in Sections 7, 8, and 9, a total irrigable area of approximately 16,740 acres.

PROGRESSIVE IRRIGATION DISTRICT, 15,000".

Anderson Head: Near West Quarter corner of Section 5, Tp. 3 North, Range 40 E. B. M., on South bank of South Fork.

Eagle Rock and Willow Creek Head: Near Southwest corner of Section 31 Township 4 North, Range 40 E. B. M.

Land: In Township 1 North, Range 38 E. B. M.;

In Section 31: $E\frac{1}{2}$ of $E\frac{1}{2}$, $SW\frac{1}{4}$ of $SE\frac{1}{4}$, All of the $NW\frac{1}{4}$ of $SE\frac{1}{4}$, $SW\frac{1}{4}$ of $NE\frac{1}{4}$ and $NW\frac{1}{4}$ of $NE\frac{1}{4}$ lying East of the Taylor Canal.

Entire Sections 22, 15, 11, 10, 2.

In Section 16: 17 acres of the $SE\frac{1}{4}$ of $SE\frac{1}{4}$ lying East of the Taylor Canal.

In Section 14: $NW\frac{1}{4}$, $W\frac{1}{2}$ $NE\frac{1}{4}$, $N\frac{1}{2}$ $SW\frac{1}{4}$.

In Section 12: $NW\frac{1}{4}$ of $NW\frac{1}{4}$.

In Section 1: $W\frac{1}{2}$ of $W\frac{1}{2}$, $E\frac{1}{2}$ of $NW\frac{1}{4}$, $N\frac{1}{2}$ of $NE\frac{1}{4}$.

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In Section 3: $E\frac{1}{2}$, $SW\frac{1}{4}$.
In Township 2 North, Range 38 E. B. M.:
Entire Sections 35, 36, 25, 26, 27, 22, 23, 24, 13, 14, 15, 16, 9, 10, 11, 12, 1, 2, 3, 4.
In Section 21: $E\frac{1}{2}$, $NE\frac{1}{4}$ of $NW\frac{1}{4}$, E. 20 R. of the $SW\frac{1}{4}$.
In Section 17: $NE\frac{1}{4}$, $SE\frac{1}{4}$ of $SE\frac{1}{4}$.
In Section 8: $E\frac{1}{2}$.
In Section 5: $E\frac{1}{2}$, $E\frac{1}{2}$ of $NW\frac{1}{4}$, $NW\frac{1}{4}$ of $NW\frac{1}{4}$, $E\frac{1}{2}$ of $SW\frac{1}{4}$ of $NW\frac{1}{4}$, $NE\frac{1}{4}$ of $SW\frac{1}{4}$, $E\frac{1}{2}$ of $SE\frac{1}{4}$ of $SW\frac{1}{4}$.
In Section 6: $N\frac{1}{2}$, $SW\frac{1}{4}$, $NW\frac{1}{4}$ of $SE\frac{1}{4}$.
In Section 7: $N\frac{1}{2}$ of $NW\frac{1}{4}$, $SW\frac{1}{4}$ of $NW\frac{1}{4}$.
In Section 34: $E\frac{1}{2}$.
In Township 3 North, Range 38 E.B.M.:
In Section 31: $S\frac{1}{2}$, $S\frac{1}{2}$ of $N\frac{1}{2}$, $NE\frac{1}{4}$ of $NE\frac{1}{4}$.
Entire Sections 32, 33, 35, 36, 28, 29, 20, 21.
In Section 34: $W\frac{1}{2}$, $W\frac{1}{2}$ of $NE\frac{1}{4}$, $SE\frac{1}{4}$.
In Section 25: $E\frac{1}{2}$, $SW\frac{1}{4}$.
In Section 26: $S\frac{1}{2}$ of $SE\frac{1}{4}$ of $SE\frac{1}{4}$.
In Section 27: $N\frac{1}{2}$, $SW\frac{1}{4}$, $W\frac{1}{2}$ of $SE\frac{1}{4}$.
In Section 30: $E\frac{1}{2}$ of $E\frac{1}{2}$.
In Section 22: $S\frac{1}{2}$ $SW\frac{1}{4}$, $NW\frac{1}{4}$ $SW\frac{1}{4}$.
In Section 19: $SE\frac{1}{4}$, $SE\frac{1}{4}$ of $NE\frac{1}{4}$.
In Township 2 North, Range 39 E. B. M.:
In Section 30: $W\frac{1}{2}$ of $W\frac{1}{2}$, $NE\frac{1}{4}$ of $SW\frac{1}{4}$, $E\frac{1}{2}$ of $NW\frac{1}{4}$, $NW\frac{1}{4}$ of $NE\frac{1}{4}$.
Entire Sections 19, 18, 7.
In Section 20: $W\frac{1}{2}$ $NW\frac{1}{4}$, $NW\frac{1}{4}$ of $SW\frac{1}{4}$.
In Section 17: $SW\frac{1}{4}$ of $SW\frac{1}{4}$.
In Section 6: $W\frac{1}{2}$, $W\frac{1}{2}$ of $E\frac{1}{2}$, $W\frac{1}{2}$ of $SE\frac{1}{4}$ of $SE\frac{1}{4}$.
In Section 31: $NW\frac{1}{4}$ of $NW\frac{1}{4}$.
In Township 4 North, Range 40 E. B. M.:
In Section 24: $SE\frac{1}{4}$.
In Section 25: $SW\frac{1}{4}$ $S\frac{1}{2}$ of $SE\frac{1}{4}$, So. 20 rods of $NW\frac{1}{4}$ of $SE\frac{1}{4}$.
In Section 36: $SW\frac{1}{4}$.
In Township 3 North, Range 39 E. B. M.:
In Section 31: $W\frac{1}{2}$.
In Section 29: $N\frac{1}{2}$ of $NW\frac{1}{4}$.
In Section 30: $NE\frac{1}{4}$, $NW\frac{1}{4}$ of $SE\frac{1}{4}$, $SW\frac{1}{4}$.
In Section 19: $N\frac{1}{2}$.
In Section 20: $SW\frac{1}{4}$, $W\frac{1}{2}$ of $SE\frac{1}{4}$.
In Section 16: $S\frac{1}{2}$ of $SW\frac{1}{4}$.
In Section 18: $S\frac{1}{2}$.
In Township 3 North, Range 40 E. B. M.:
In Section 1: $N\frac{1}{2}$ of $NW\frac{1}{4}$, $N\frac{1}{2}$ of $NE\frac{1}{4}$.
In Section 2: $N\frac{1}{2}$ of $N\frac{1}{2}$, $S\frac{1}{2}$ of $NW\frac{1}{4}$, $SW\frac{1}{4}$ of $NE\frac{1}{4}$, $N\frac{1}{2}$ of $SE\frac{1}{4}$.
In Section 3: $NE\frac{1}{4}$, $W\frac{1}{2}$ of $NW\frac{1}{4}$, $N\frac{1}{2}$ of $SE\frac{1}{4}$.
In Township 1 North, Range 37 E. B. M.:
Entire Section 1 East of Snake River.
In Township 3 North, Range 37 E. B. M.:
Entire Section 36 East of Snake River.
In Township 2 North, Range 37 E. B. M.:
In Section 12: All of $NE\frac{1}{4}$ East of Snake River.

KITE & NORD DITCH, (ELMER S. DRAKE, R. W. MEIKEL, T. J. DURANT, JAMES PRESCOTT, OSCAR J. NORD, Owners,) 250".

Headgate located in $NE\frac{1}{4}$ of $NE\frac{1}{4}$ Section 31, Township 4 North, Range 40 E. B. M.
Land: Southeast Quarter Section 19; North half of Northeast Quarter Section 30, Tp. 4 North, Range 40 E. B. M.

WHITE DITCH, (GEORGE M. WHITE, JOHN R. SCOTT AND JOHN T. QUINTON, owners). 500".

Headgate located in Southwest Quarter of Southeast

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Quarter Section 5, Township 5 North, Range 39 E. B. M.

Land: South half of Northwest Quarter; North half of South half; South half of Southeast Quarter Section 6, Township 4 North, Range 39 E. B. M.

Southeast Quarter of Northeast Quarter of Section 1, Township 4 North, Range 38 E. B. M.

THE RUDY CANAL & IRRIGATION COMPANY, a corporation, 6000".

Headgate located in the Northeast corner of the Northeast Quarter of Section 29, Township 4 North, Range 40 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 38 East B. M., 560 acres in Section 36.

In Township 4 North of Range 39 East B. M., the South half of Section 29, the South half of Section 30, entire section 31, entire Section 32, South half of Section 21, South half of Section 22, South half of Section 23, South half of Section 24, entire Sections 25, 26, 27, and 28. The North half of Section 33, North half of Section 34, North half of Section 35.

In Township 4 North of Range 40 East, the Northwest Quarter of Section 30. A total irrigable area of approximately 7440 acres.

LaRelle Irrigation Company, 1500 inches, for the lands of the stockholders of said company, a particular description of which lands may be hereafter supplied and filed as an exhibit in this cause.

CHENEY DITCH, (WELLS E CHENEY-ORVILLE E. EVANS) 300".

Headgate located in center of Section 30, Township 4 North Range 40 E. B. M.

Land: Northwest Quarter; South Half of Northeast Quarter; West half of the Southeast Quarter of Section 29, Township 4 North, Range 40 E. B. M.

WEARYRICK DITCH COMPANY, a corporation 1,500".

Headgate located about the center of the Northeast Quarter of the Northeast Quarter of Section 18, Township 3 South, Range 35 East Boise Meridian, in Bingham County, State of Idaho.

Land: In Township 3 South, Range 34 E. B. M.:
Section 1: $N\frac{1}{2}$, $NE\frac{1}{4}$ $SW\frac{1}{4}$;
Section 2: $NE\frac{1}{4}$, $NE\frac{1}{4}$ $SE\frac{1}{4}$, $SE\frac{1}{4}$ $NW\frac{1}{4}$;
Section 3: $SW\frac{1}{4}$;
Section 4: $NE\frac{1}{4}$; $S\frac{1}{2}$;
Section 5: $SE\frac{1}{4}$;
Section 8: $NE\frac{1}{4}$;
Section 9: $NW\frac{1}{4}$;
Containing a total irrigable area of approximately 1720 acres.

FARMERS FRIEND IRRIGATION COMPANY, a corporation, 8,000".

Headgate located in the Northeast corner of the Northeast Quarter of Section 36, Township 4 North, Range 39 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 39 East B. M., in Sections 33, 34 and 35, three hundred twenty acres;

In Township 4 North of Range 40 East B. M., in Sections 27 to 36, both numbers inclusive, nineteen hundred ninety three acres;

In Township 5 North of Range 40 East B. M., in Sections 4, 5, 6 and 7, seven hundred twenty-five acres;

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In Township 3 North of Range 39 East B. M., in Sections 1, 2 and 3, and 8 to 16, both numbers inclusive, four thousand seven hundred sixty-five acres;

In Township 3 North, Range 38 East B. M., in Sections 13, 14 and 15, 22, 23 and 24, two thousand four hundred forty one acres; A total irrigable area of ten thousand, two hundred forty-four acres.

BURGESS CANAL & IRRIGATING COMPANY, a corporation, 10,000".

Headgate located in the Southeast Quarter of Section 20, Township 4 North Range 40 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Township 4 North of Range 40 East Boise Meridian, the Southwest Quarter of Section 19.

In Township 4 North of Range 39 East Boise Meridian. The North half of the South half, the Northwest Quarter and the South half of the Northeast Quarter of Section 23, the North half and the North half of the South half of Section 22, the Southwest Quarter of Section 15, the South half of Section 16, the North half and the Southwest Quarter and the North half of the Southeast Quarter of Section 21, the Southeast Quarter, the South half of the Northeast Quarter, and the South half of the Southwest Quarter of Section 17, the South half of the Southeast Quarter of Section 18, entire Sections 19 and 20, the North half of the North half of Section 29, the North half and the Southwest Quarter of Section 30.

In Township 4 North of Range 38 East Boise Meridian, the South half of the Southwest Quarter of Section 15, the South half and the South half of the Northeast Quarter of Section 16, the South half of the South half and the North half of the Southwest Quarter of Section 17, the South half and the East half of the Northeast Quarter of Section 19, entire Sections 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, the West half and the Northeast Quarter of Section 33, the Northwest Quarter, the North half of the Northeast Quarter and the North half of the Southeast Quarter of Section 34, the South half of Section 35, entire section 36.

In Township 4 North of Range 37 East Boise Meridian. The South half and the Northwest Quarter of Section 24, entire Section 26, entire Section 36.

In Township 3 North of Range 37 East Boise Meridian. Entire Sections 1, 12, 13 and the North half of Section 24.

In Township 3 North of Range 38 East Boise Meridian. The South half of the Northeast Quarter of Section 3, entire Section 10, the North half of the North half of Section 15, the South half of the Southeast Quarter and the West half of Section 4, the Northeast Quarter of the Northeast Quarter of Section 9, entire Sections 5, 6, 7 and 18, the West half of Section 8, the West half of Section 17, and the North half of Section 19. Containing approximately 24,440 acres of irrigable land. All land in Township Three North is in Bonneville County.

SNAKE RIVER VALLEY IRRIGATION DISTRICT. 3,400".

Headgate is located in the northwest quarter of the Northeast Quarter of Section 3, Township 1 North Range 37 East Boise Meridian, in Bonneville County, State of Idaho.

Land: In Township 1 North, Range 37 E. B. M.

Entire Sections 19, 20 and 29.

In Section 21: W½ NW¼, SW¼.

In Section 28: West half W½ of NE¼, NW¼ of SE¼, W½ of NW¼ of SW¼ of SE¼.

Entire Sections 31, 32, 33.

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In Section 34: W½ of E½.
In Township 1 South, Range 37 E. B. M.:
Entire Sections 3, 4, 5, 8, 9, 10, 15, 16, 17, 19, 20, 21, 28, 27, 28, 29, 30, 31, 32, 33. West half Section 2.

All of Sections 6, 7, 18, 19 lying East of Snake River.

In Section 11: N½ NW¼, SW¼ of NW¼, W½ of SW¼.
In Section 14: West half.
In Section 34: NW¼, N½ of NE¼, SW¼, of NE¼, W½ of SW¼.

In Township 1 South, Range 36 E. B. M.
In Section 25: East half; portion of E½ of SW¼ East of Government Canal.
In Section 36: E½; SW¼; E½ of NW¼; portion of NW¼ of NW¼ East of Government Canal.
In Township 2 South, Range 36 E. B. M.:
Entire Sections 1, 11 and 12.
In Section 2: E½; SW¼; SW¼ of NW¼;
In Section 3: SE¼; S½ of SW¼.
In Section 10: N½.
In Township 2 South, Range 37 E. B. M.;
Entire Section 6.
In Section 5: N½ and SW¼.
In Section 4: N½ of NW¼; NW¼ of NE¼.

THE REID CANAL COMPANY, a corporation 2,000".

Headgate located in the Southwest corner of the Southwest Quarter of Section 6, Township 4 North Range 39 East Boise Meridian, in Jefferson County, State of Idaho.
Land: In Township 5 North, Range 39 E. B. M.:
In Section 2: SW¼ of SE¼ and SE¼ of SW¼;
In Section 11: All except the NW¼ of NW¼ and W½ of NE¼ of NW¼.
In Section 12: The S½ of the SE¼ and the West half except the N½ of the NW¼;
Entire Sections 13, 14 and East half of Section 15;
In Section 22: E½ of the E½.
In Section 23: The West half and the S½ of the SE¼;
In Section 24: The E½ and the S½ of the SW¼; Entire Sections 25 and 26;
In Section 27: The NE¼ of the NE¼;
In Section 35: All lying North and East of Texas Slough;
In Section 36: NW¼, W½ of NE¼ and all of the SW¼ lying North and East of the Texas Slough.
In Township 5 North, Range 40 E. B. M.;
In Section 7: S½ of N½ of SW¼; SW¼ of SW¼;
In Section 18: N½ of SW¼;
In Section 19: W½ of NW¼; SE¼ of NW¼; N½ of SW¼ and W½ of SE¼.
In Section 30: N½ of the NW¼ of the NE¼.
Containing a total irrigable area of approximately 5350 acres.

RIGBY CANAL & IRRIGATION COMPANY, a corporation. 4,900".

Headgate located in the Southwest corner of the Southeast Quarter of Section 10, Township 4 North, Range 39 East Boise Meridian, in Jefferson County, State of Idaho.
Land: In Township 4 North, Range 39 East Boise Meridian in Jefferson County, Idaho.
The South half of Section 7.
The South half of the South half and the South half of the North half of the South half of Section 8.
The South half of the South half and the South half

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of the North half of the South half of Section 9.

The Southwest Quarter of the Southwest Quarter and that part of the Southeast Quarter of the Southwest Quarter lying South and west of the Rigby Canal of Section 10. (60 acres).

The Northwest Quarter of the Northeast Quarter and the Northwest Quarter of Section 16.

The Northeast Quarter; the Northwest Quarter; the North half of the Southwest Quarter; and the North half of the South half of the Southwest Quarter of Section 17.

Section 18.

In Township 4 North, Range 38 East Boise Meridian in Jefferson County, Idaho.

The Southeast Quarter; the South half of the Southwest Quarter; the Northeast Quarter of the Southwest Quarter; and that part of the Northwest Quarter of the Southwest Quarter lying south and east of the Lewisville Canal of Section 13. 290 acres.

Section 13.

The South half; the South half of the Northeast Quarter; the South half of the North half of the Northeast Quarter; and the South half of the Northwest Quarter of Section 14.

The Southeast quarter of Section 15.

The North half of the Northeast Quarter of Section 22.

The Northeast Quarter; and that part of the North half of the Northwest Quarter lying north of the Rigby Canal of Section 23. 175 acres.

The North half of the Northwest Quarter; the Southwest Quarter of the Northwest Quarter; and that part of the Southeast Quarter of the Northwest Quarter lying north and west of the Burgess Canal of Section 24. 140 acres.

Containing a total irrigable area of approximately 4145 acres.

THE LIBERTY PARK IRRIGATION COMPANY, a corporation 800".

Two heads on Texas Slough as follows:

#1 Center of Northeast Quarter, Section 27, Tp. 5 N. R. 39 E. B. M.

#2 Near Southwest corner of the Northwest Quarter of the Southwest Quarter of Section 10, Tp. 5 North, Range 39 E. B. M., Jefferson County, State of Idaho.

Land: In Township 5 North of Range 39 E. B. M.:

Entire Sections 4 and 5 lying South of Texas Slough;

In Section 7: $NE\frac{1}{4}$; $N\frac{1}{2}$ $SE\frac{1}{4}$; $E\frac{1}{2}$ $NW\frac{1}{4}$; $NW\frac{1}{4}$ $NW\frac{1}{4}$; $NE\frac{1}{4}$ of $SW\frac{1}{4}$ of $NW\frac{1}{4}$; $E\frac{1}{2}$ of $NE\frac{1}{4}$ of $SW\frac{1}{4}$;

Entire Sections 8, 9 and 15;

Entire Section 17 lying North and East of Bannock Jim Slough;

In Section 15: $W\frac{1}{2}$ of $SW\frac{1}{4}$, $SE\frac{1}{4}$ of $SW\frac{1}{4}$, and portions of the $NE\frac{1}{4}$ of the $SW\frac{1}{4}$ and the $W\frac{1}{2}$ of the $NE\frac{1}{4}$ lying West of Texas Slough

In Section 10: All lying East of Texas Slough;

In Section 20: $E\frac{1}{2}$ of $NE\frac{1}{4}$ of $NE\frac{1}{4}$ East of Bannock Jim Slough;

In Section 21: All thereof lying East and North of Bannock Jim Slough;

In Section 22: $NW\frac{1}{4}$, $W\frac{1}{2}$ of $SW\frac{1}{4}$, $W\frac{1}{2}$ of the Southeast Quarter and part of $NW\frac{1}{4}$ of $NE\frac{1}{4}$, West of Texas Slough, also all of South half of $SW\frac{1}{4}$ lying North of Bannock Jim Slough;

Containing a total irrigable area of approximately 4000 acres.

THE TEXAS SLOUGH IRRIGATION CANAL COMPANY, a corporation. 800".

Headgate is located near the westerly line of the Northwest Quarter of the Southeast Quarter ($NW\frac{1}{4}$ $SE\frac{1}{4}$) of

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Section 15, Township 5 North, Range 39 East Boise Meridian, in Madison County, State of Idaho.

Land: In Township 6 North Range 39 East Boise Meridian:

In Section 29: S½ of SW¼; in Section 30: S½ of SE¼; Entire Section 31 East of the North Fork of Snake River; Entire Secs. 32 and 33;

In Section 34: SW¼ and S½ of NW¼.

In Township 5 North Range 39 East Boise Meridian:

In Section 2: NW¼; N½ of SW¼; S½ of NE¼; NW¼ of NE¼; NW¼ of SE¼; Entire Section 3.

In Section 4: All of East half lying North and East of Texas Slough; NW¼ of NW¼.

In Sec. 5: N½ of NE¼ North of Texas Slough;

In Sec. 6: NW¼ and N½ of NW¼; Entire Section 10;

In Sec. 15: E 80 R. of NE¼ of NW¼; W½ of W½ of NE¼;

In Township 5 North Range 38 E. B. M.

In Sec. 1: The NE¼ of the NE¼ of the NE¼;

In Township 6 N. Range 38 E. B. M.:

In Section 36: Portion of the S½ of the SE¼ lying south of the North Fork of Snake River.

Containing a total irrigable area of approximately 4340 acres.

WM. J. KREMER, (Matson & Craig Ditch) 700".

Land: Lot One Section 25; West Forty-six and one-half rods of Lot One; Lot Two; East half of Lot One; Southeast Quarter of the Southwest Quarter; North half of the Southwest Quarter; Southwest Quarter of the Southeast Quarter of Section 26; North half of the Northeast Quarter of Section 35; Northwest Quarter of the Northwest Quarter of Section 36, all in Township Four (4) North, Range Forty E. B. M.

H. W. FORBUSH, (Cheney Ditch) 100".

Headgate located in center of Section 30, Tp. 4 North Range 40 E. B. M.

Land: Southwest Quarter of Section 29, Tp. 4 North Range 40 E. B. M.

John E. Ellis 100".

Headgate on Dry Bed.

Land: Lot 3, Southwest Quarter of the Northwest Quarter, Northeast Quarter of the Southwest Quarter of Section 1, Tp. 4 North Range 38 E. B. M.

J. R. ARMBRUSTER 150".

Location of headgate: Near the Northwest corner of the Northeast quarter of the southeast quarter of section 35, township 4 north range 40 E. B. M.

Land: east half northeast quarter section 27; lots 3 and 4 and the southwest quarter of the northwest quarter section 26, township 4 North range 40 E. B. M.

THE PEOPLES CANAL & IRRIGATION COMPANY, a corporation 10,000".

Headgate located on the west side of Snake River at a point near the Southeast Quarter of Section 27, Tp. 1 South, Range 36 E. B. M., in the County of Bingham, State of Idaho.

Land: 60,000 acres of land, lying in the County of Bingham, State of Idaho, and contained in Townships 1, 2, 3, 4 and 5 South, Range 32 East B. M., also Townships 1, 2, 3, and 4 South, Range 33 East B. M., also Townships 1, 2, 3 and

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4 South, Range 34 East B. M., also Townships 1 and 2 South, Range 35 East B. M, and Township 2 South, Range 36 E. B.M.

WATSON'S SLOUGH DITCH COMPANY, 1,800".

Headgate located on the west side of Snake River at a point about one-half mile south of what is known as the Blackfoot Snake River Bridge in the County of Bingham, Idaho.

Land: Northwest Quarter of the Southwest Quarter and Lots 3 and 4, of Section Fifteen, Northeast Quarter of Southeast Quarter of Section Sixteen and Southeast Quarter of Southeast Quarter of Section Sixteen; Southwest Quarter of Section Three; Southeast Quarter of Section Three, West Half of Northwest Quarter of Section One; Southwest Quarter of Southwest Quarter of Section One and Northwest Quarter of Northwest Quarter of Section Twelve; East half of Southeast Quarter of Section Nine; West Half of Northeast Quarter of Section Eleven; Southeast Quarter of Northeast Quarter of Section Sixteen; West Half of Southwest Quarter of Section Two; Northwest Quarter of Southeast Quarter of Section Nine; Southwest Quarter of Section Ten; Northeast Quarter of Section Nine; Southeast Quarter of Section Five; West half of Southeast Quarter of Section Sixteen; East Half of Northeast Quarter of Section Ten; East Half of Northwest Quarter of Section Seventeen; Northwest Quarter of Northwest Quarter of Section Nineen; Northeast Quarter of Section Seventeen; Northwest Quarter of Section Ten, all in Township Three South, Range Thirty-four E. B. M.; also East Half of Southwest Quarter of Section Seventeen and Lots One, Two and Three of Section Twenty, Township Three South, Range Thirty-four E.B.M.; Northwest Quarter of Southwest Quarter of Section Three, Township Three South, Range Thirty-five E.B.M., and Southeast Quarter of Section Seventeen, Township Three South, Range Thirty-four E.B.M., and two hundred acres of accretion lands lying adjacent to last above described lands.

DANSKIN-DITCH COMPANY, 1,000".

Headgate on the west side of Snake River at a point about one-half mile south of what is known as the Blackfoot Snake River Bridge in the County of Bingham, State of Idaho.

Land: Southeast Quarter of Section 30, Tp. 2 S. R. 35 E. B. M.; Northeast Quarter of Southwest Quarter and Lot 2 of Section 11, Tp. 3 S. R. 35 E. B. M.; Northeast Quarter of Southwest Quarter of Section 35, Tp. 2 S. R. 34 E.B.M.; North half of Northwest Quarter of Section 34, and East Half of Northeast Quarter of Section 33, Tp. 2 S. R. 34 E. B. M.; South half of the Northeast Quarter of Section 30, Tp. 2 S. R. 34 E. B. M; East Half of Lot 3, Section 36 Tp. 2 S. R. 34 E. B. M.; Southwest Quarter of Northwest Quarter and Lot 4 of Section 2, Tp. 3 S. R. 34 E. B. M.; East Half of Northeast Quarter of Section 3, Tp. 3 S. R. 34, E. B. M., East Half of Northwest Quarter of Northwest Quarter, East half of West Half of Northwest Quarter, North Half of North Half of Southwest Quarter of Northwest Quarter of Section 36, Tp. 2 S. R. 34 E. B. M.; part of Northeast Quarter of Northeast Quarter of Northeast Quarter of Section 26, Tp. 2 S. R. 34 E. B. M.; Northeast Quarter of Southeast Quarter and East Half of Northwest Quarter of Southeast Quarter of Section 25, Tp. 2 S. R. 34 E. B. M.; west half of Lot 4, Section 36, Tp. 2 S. R. 34 E. B. M.; Northwest Quarter of Section 4, Tp. 3 S. R. 34 E. B. M.; Lot 2 Section 35 Tp. 2 S. R. 34 E. B. M.; Southeast Quarter of Southeast Quarter of Section 29 Tp. 2 S. R. 35 E. B. M., 2 strips each 10 chains wide by 100 chains long in Sections 26 and 35, Tp. 2 S. R. 34 E. B. M.; beginning at Northwest corner of Northeast Quarter of Northwest Quarter of Section 26, Tp. 2 S. R. 34 E. B. M.; thence 170

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rods to center of County Road; thence E. Along road 32 rods; thence _. 170 rods to a point due E. of beginning; thence W. to beginning; East Half of Southeast Quarter of Southwest Quarter of Section 34, Tp. 2 S. R. 34 E. B. M.; also commencing at Northwest corner of Northeast Quarter of Section 36, Tp. 2 S. R. 34, thence S. 10 rods, thence W. 40 rods, thence N. 10 rods, thence E. 40 rods to beginning; West Half of Northwest Quarter and East Half of Northwest Quarter of Section 26, Tp. 2 S. R. 34 E. B. M.; 20 acres in East Half of Northwest Quarter of Section 26, Tp. 2 S. R. 34 E. B. M.; Southeast Quarter of Northwest Quarter, Southwest Quarter of Northeast Quarter and Lots 2 and 3 Section 3 Tp. 3 S. R. 34 E. B. M.; East Half of Northwest Quarter and West Half of Northeast Quarter of Section 3, Tp. 3 S. R. 34 E. B. M.; West Half of Southeast Quarter and the Southwest Quarter of Section 25, Tp. 2 S. R. 34 E. B. M.; also a strip 10 rods wide from Section 36, lying north of the county road and joining said land on the South; Northeast Quarter of Southeast Quarter of Section 35, Tp. 2 S. R. 34 E. B. M.; Northwest Quarter of Southwest Quarter, five acres on north side of Southwest Quarter of Southwest Quarter of Section 2 5, Tp. 2 S. R. 34 E. B. M.; 80 by 80 rods on north side of Southwest Quarter of Northwest Quarter of Section 36, Tp. 2 S. R. 34 E. B. M.; East Half of Northwest Quarter of Northwest Quarter of Section 25 Tp. 2 S. R. 34 E. B. M.; commencing at center of Section 26, Tp. 2 S. R. 34 E. B. M.; thence south 40 rods; thence west 8 rods, thence south 360 rods, thence east 88 rods, thence north 80 rods, thence east 10 rods, thence north 320 rods, thence west 90 rods to beginning; Southwest Quarter of Southwest Quarter of Section 25, Tp. 2 S. R. 34 E. B. M.; Lot 1, Section 34, Tp. 2 S. R. 34 E. B. M.; Northwest Quarter of Northwest Quarter of Section 23, Tp. 2 S. R. 34 E. B. M.; also 5 acres in Northeast Quarter of Southwest Quarter of said Section 23; West Half of the Southwest Quarter of Section Twenty-seven, Tp. 2 S. R. 34 E. B. M.; East Half of lot 6 Section 36, Tp. 2 S. R. 34 E. B. M.; Southeast Quarter of Southeast Quarter of Section 30, Tp. 2 S. R. 35 E. B. M.; West Half of Lot 3, Section 36 Tp. 2 S. R. 34 E. B. M.; Northwest Quarter of Southwest Quarter of Section 36 Tp. 2 S. R. 35 E. B. M.; West Half of the Southwest Quarter of Section 29, Tp. 2 S. R. 35 E. B. M.; 83 acres in Southeast Quarter of Southwest Quarter of Section 23, Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of Southeast Quarter of Section 4, Tp. 2 S. R. 34 E. B. M.; East Half of Section 36, East Half of Northwest Quarter and Northeast Quarter of Southwest Quarter of Section 36, Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Northwest Quarter of Southeast Quarter of Section 26, Tp. 2 S. R. 34 E. B. M.; West Half of West Half of Northwest Quarter of Northwest Quarter of Section 35, Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of Northwest Quarter of Section 30, Tp. 2 S. R. 35 E. B. M.; West Half of Section Thirty-one Tp. 2 S. R. 35 E. B. M.; East Half of Southwest Quarter and West Half of Southeast Quarter of Section 34, Tp. 2 S. R. 34 E. B. M.; West Half of Southeast Quarter and East Half of Southwest Quarter of Section 27, Tp. 2 S. R. 34 E. B. M.; West Half of Section Thirty-two and East Half of Section 31, Tp. 2 S. R. 35 E. B. M.; West Half of Northwest Quarter of Section 3 Tp. 2 S. R. 34 E. B. M.; a strip 10 chains wide by 100 chains long in Section 26 and 35, Tp. 2 S. R. 34 E. B. M.; West Half of Section 30 Tp. 2 S. R. 35 E. B. M.; Southwest Quarter of Northeast Quarter, Southeast Quarter of Northwest Quarter and Northwest Quarter of Northeast Quarter of Section 34 Tp. 2 S. R. 34 E. B. M.; a strip 10 chains wide by 100 chains long in Sections 26 and 35 Tp. 2 S. R. 34 E. B. M.; West Half of Southwest Quarter of Section 26, East Half of Southeast Quarter of Section 27, East Half of Northeast Quarter of Section 34, Northeast Quarter of Southeast Quarter of Section 34, West Half of Northwest Quarter and Northwest Quarter of Southeast Quarter of Section 35, Tp. 2

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S. R. 34 E. B. M. Moreland Townsite. Riverside Townsite.

HARRISON CANAL AND IRRIGATION COMPANY, a corporation. 4,800".

Headgate located in the Northwest corner of the Northwest Quarter of Section 27, Township 4 North, Range 40 East Boise Meridian, in Jefferson County, State of Idaho.

Land: In Bonneville County:

In Township Three (3) North, Range 38 E. B. M.:

Entire Sections 1, 2, 3 and 12;

NE¼ and N½ of SE¼ Section 4; East Half Section 8; West half and E½ of NE¼ Section 9; N½ of N½ and SE¼ of SE¼ Section 11.

N½ of N½ and S½ of NW¼ Section 14;

S½ of NW¼, N½ of SW¼, SW¼ of SW¼ Section 15;

S½, NE¼ and E½ NW¼ Section 16; S½ of SE¼ Section 17;

N½ of NW¼ and NE¼ of NW¼ of Section 20;

W½ of NE¼ of SE¼ Section 23; N½ of N½, SE¼ of NE¼, SE¼ of NW¼; NE¼ of SW¼ and N½ of SE¼ Section 24;

In Township 3 North, Range 39 E. B. M.:

Entire Sections 4, 5, 6, 7 and 8;

NW¼ and W½ of NE¼ Section 3; N½ and NE¼ Section 9, W½ NW¼ Section 10; SW¼ Section 17; N½ of NW¼ and NW¼ of NE¼ Section 18.

In Jefferson County, Idaho:

In Township Four (4) North, Range 38 E. B. M.:

SE¼ and SE¼ of NE¼ Section 33;

S½ and S½ of NE¼ Section 34;

E½ and NE¼ Section 35;

SW¼, S½ of NW¼, W½ of SE¼ Section 36.

In Township Four (4) North, Range 39 E. B. M.:

Entire Sections 31-32-33-34;

N½ of S½ and N½ Section 35; N½ of N½ and SE¼ of NW¼ Section 36; S½ and NE¼ Section 25.

In Township Four (4) North, Range 40 E. B. M.:

SE¼ of SE¼ of SW¼ Section 19;

W½ and SE¼ Section 30.

A total of 15,400 acres.

NEW LAVASIDE DITCH COMPANY, 1,500".

Headgate Located on the west side of Snake River at a point near the Southeast corner of Lot Three, Section Twenty-four Township One South, Range Thirty-six East of the Boise Meridian, Bingham County, Idaho.

Land: Northwest Quarter of Section 14 and West Half of West Half of Southwest Quarter of Section 14, Tp. 2 S. R. 35 E. B. M.; South Half of Northeast Quarter of Section 11, Tp. 2 S. R. 35 E. B. M.; East Half of Southeast Quarter of Section 15, Tp. 2 S. R. 35 E. B. M.; Lot 1 of Section 2, Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Section 21, Tp. 2 S. R. 35 E. B. M.; East Half of the Northwest Quarter and the West Half of the Northeast Quarter of Section 14, Tp. 2 S. R. 36 E. B. M.; Northwest Quarter of Section 15, Tp. 2 S. R. 35 E. B. M.; Part of Southwest Quarter of Northwest Quarter of Section 25, and Lots 1, 2 and 3 of Section 25, Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Northwest Quarter of Section 23, Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of Section 11, Tp. 2 S. R. 35 E. B. M.; Lot 1 of Section 27 and Southeast Quarter of Southeast Quarter of Section 22, Tp. 2 S. R. 35 E. B. M.; South Half of Southwest Quarter, Northeast Quarter of Southwest Quarter and Southeast Quarter of Northeast Quarter of Section 10, Tp. 2 S. R. 35 E. B. M.; North Half of Southwest Quarter of Section 1 Tp. 2 S. R. 35 E. B. M.; 176 acres in Sections 1 and 12, East Half of Northwest Quarter and Southeast Quarter of Northwest Quarter of Section 12, Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of Southwest Quarter of Section 2 Tp. 2 S. R. 35 E. B. M.; Northwest Quar-

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ter of Section 11, Tp. 2 S. R. 35 E. B. M.; Southwest Quarter of Northwest Quarter, North Half of Southwest Quarter and Northwest Quarter of Southeast Quarter of Section 15, Tp. 2 S. R. 35 E. B. M.; Northeast Quarter of Northeast Quarter of Section 14, Lot 6 of Section 13, and Lots 1, 2 and 3 of Section 14, Tp. 2 S. R. 35 E. B. M.; Lots 2, 3 and 4 and West Half of Southwest Quarter of Section 12 Tp. 2 S. R. 35 E. B. M.; Southwest Quarter of Section 11, Tp. 2 S. R. 35 E. B. M., East Half of Section 13 Tp. 2 S. R. 35 E. B. M.; Northeast Quarter of Southwest Quarter and Northwest Quarter of Southeast Quarter of Section 22, Tp. 2 S. R. 35 E. B. M.; East Half of East Half of Southeast Quarter of Southeast Quarter of Section 14, Tp. 2 S. R. 35 E. B. M., North Half of Northeast Quarter of Section 11, Tp. 2 S. R. 35 E. B. M.; West Half of East Half of Southwest Quarter of Section 14 Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of Southwest Quarter and Southwest Quarter of Southeast Quarter of Section 15 Tp. 2 S. R. 35 E. B. M.; South Half of Southwest Quarter of Section 33, Tp. 1 S. R. 36 E. B. M.; Lots 2 and 3 and Southwest Quarter of Northwest Quarter of Section 4, Lots 1 and 2 and South Half of Northeast Quarter, North Half of Southeast Quarter; Northeast Quarter of Southwest Quarter and Southeast Quarter of Northwest Quarter of Section 5, Tp. 2 S. R. 36 E. B. M.; Lots 1, 4 and 5 of Section 4, Lots 6, 7 and 8 of Section 5 Tp. 2 S. R. 36 E. B. M.; North Half of Southeast Quarter and South Half of Northeast Quarter of Section 33, Tp. 1 S. R. 36 E. B. M.; South Half of Northeast Quarter, Southeast Quarter of Northwest Quarter, East Half of Southwest Quarter, North Half of Southeast Quarter, and Lots 5, 6, 7, 8 and 9 of Section 6, Tp. 2 S. R. 36 E. B. M.; Lot 1, Section 7, Southwest Quarter of Northwest Quarter, Northwest Quarter of Southwest Quarter and Lot 5 of Section 6, Tp. 2 S. R. 36 E. B. M.; Southeast Quarter of Northeast Quarter, East Half of Southeast Quarter, Section 1; Northeast Quarter of Northeast Quarter and Lot 1 of Section 12, Tp. 2 S. R. 35 E. B. M.; excepting therefrom a strip 25 rods wide by 400 rods long; also South Half of Southeast Quarter of Section 33, Tp. 1 S. R. 36 E. B. M.; 240 acres of unsurveyed land in Tp. 1 S. R. 35 E. B. M.; 240 acres of unsurveyed land in Tp. 1 S. R. 35 E. B. M. Lots 3 and 4, South half of Northeast Quarter and Southwest Quarter of Section 2 Tp. 2 S. R. 35 E. B. M.; Southwest Quarter of Southeast Quarter of Section 2 Tp. 2 S. R. 35 E. B. M.; Lots 1 and 2 and South half of Northeast Quarter, and North Half of Southeast Quarter, and Southeast Quarter of Southeast Quarter of Section 2 Tp. 2 S. R. 35 E. B. M.; West Half of the Southwest Quarter and Southwest Quarter of Northwest Quarter of Section 1, and Northwest Quarter of Northwest Quarter of Section 12 Tp. 2 S. R. 35 E. B. M.; Lot 3 and Southeast Quarter of Northwest Quarter of Northwest Quarter of Section 12, Tp. 2 S. R. 35 E. B. M.; South Half of Northeast Quarter and north 26 & 75/100 acres in Northeast Quarter of Southeast Quarter of Section 22, Tp. 2 S. R. 35 E. B. M.; West Half of the Southwest Quarter of Section 3, and North Half of the Northwest Quarter Section 10, Tp. 2 S. R. 35 E. B. M., Northwest Quarter of the Southwest Quarter, Section 10, Tp. 2 S. R. 35 E. B. M.; Southwest Quarter of Northwest Quarter of Section 22, Tp. 2 S. R. 35 E. B. M.; Southeast Quarter of the Southwest Quarter of Section 10 Tp. 2 S. R. 35 E. B. M.; East Half of the Southwest Quarter, West Half of Southeast Quarter Section 3 Tp. 2 S. R. 35 E. B. M.; West Half of the Northeast Quarter Section 22 Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Northeast Quarter and East Half of Northeast Quarter of Northwest Quarter Section 22 Twp. 2 S. R. 35 E. B. M.; South Half of Southwest Quarter of Southwest Quarter, Section 15, Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Northwest Quarter of Section 15 Tp. 2 S. R. 35 E. B. M. Southeast Quarter of Southwest Quarter of Section 10, Tp. 2 S. R. 35 E. B. M.; Northwest Quarter of Northwest Quarter of Section 15 Tp. 2 S. R. 35 E. B. M.; South-

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West Quarter of Southwest Quarter of Section 10 Tp. 2 S. R. 55 E. B. M., Northwest Quarter of Southwest Quarter of Section 10, Tp. 2 S. R. 55 E. B. M.; Northeast Quarter of Northeast Quarter of Section 28, Tp. 2 S. R. 55 E. B. M.; Northwest Quarter of Section 17, Tp. 2 S. R. 55 E. B. M. East Half of Northeast Quarter of Section 22, Tp. 2 S. R. 55 E. B. M.; Southeast Quarter of Northwest Quarter of Section 10, Tp. 2 S. R. 55 E. B. M.; Northeast Quarter of Southwest Quarter of Section 10, Tp. 2 S. R. 55 E. B. M.; North Half of Northeast Quarter, Southwest Quarter of Northeast Quarter and Northwest Quarter of Southeast Quarter of Section 10, Tp. 2 S. R. 55 E. B. M.; North Half of Northeast Quarter of Section 21, Tp. 2 S. R. 55 E. B. M.; Northwest Quarter of Northwest Quarter of Section 22, Tp. 2 S. R. 55 E. B. M.; Southwest Quarter of Southwest Quarter of Section 10, Tp. 2 S. R. 55 E. B. M.; Southeast Quarter of Southwest Quarter of Section 9, Tp. 2 S. R. 55 E. B. M.

RIVERSIDE CANAL COMPANY, 1,500".

Land: In Township 2 South, Range 53 E. B. M.;
Northeast Quarter of Northeast Quarter Section 22;
In Township 2 South Range 54 E. B. M.;
Northwest Quarter of Southwest Quarter Section 28;
In Township 2 South Range 55 E. B. M.;
Lot Five and Northwest Quarter Section 13; Lots 1, 2, 3 and East Half of Northeast Quarter of Section 14; South Half of Southwest Quarter Section 20; South Half of Section 21; Southeast Quarter, Southwest Quarter of Southeast Quarter Section 22; Lots 1, 2, 3, Southwest Quarter of Northwest Quarter Section 25; Lots 1, 2, East Half of Northeast Quarter, East Half of Northwest Quarter of Section 25, Southwest Quarter of Southeast Quarter of Section 25; Lots 2, 3, and 4 of Section 27; Entire Section 28 and all accretion land; Entire Section 29; Lots 1, 2 and 3, Northwest Quarter of Southwest Quarter Section 30; East half of Section 32; Entire Section 33 and 110 acres of riparian or accretion land.

NEW SWEDEN IRRIGATION DISTRICT, 7,250".

Headgate located in the Northeast Corner of the Northwest Quarter of the Northwest Quarter of Section 12, Township 2 North, Range 37 East Boise Meridian, Porter Canal head and near the North Quarter corner of Section 2 Township 3 North, Range 37 E. B. M. Great Western Head, both points in Bonneville County, State of Idaho.

Land: In Township 3 North, Range 37 East Boise Meridian in Bonneville County:

The Southwest Quarter of the Southwest Quarter of Section 12; all of Section 13 West of Snake River; the East 10 acres of the East half of the Southeast Quarter of Section 14; all of Section 24 lying west of Snake River and east of the main Great Western Canal; all of Section 25 lying west of Snake River and east of the main Great Western Canal; the East half, and the Southeast Quarter of the Northwest Quarter and the Southwest Quarter of Section 35; all of Section 36 lying west of Snake River.

In Township 2 North, Range 37 East Boise Meridian;

The West half of the west half of Section 1 lying west of Snake River, entire Section 3, all of the Southeast Quarter of the Southeast Quarter lying east of the Great Western Canal; Section 5. That portion of the West half of the Southwest Quarter of the Northwest Quarter and that portion of the west half of the Southwest Quarter of Section 4

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lying west of the West Lateral Canal. The South half of Section 6; the East half of the Southeast Quarter of Section 7; the Northeast Quarter of the Northeast Quarter of the Northeast Quarter of Section 7; entire Section 8; the East half of the West half of the Northwest Quarter of Section 9; the East half of the Southwest Quarter and the Southeast Quarter of the Northwest Quarter of Section 10; entire Section 11; the Northwest Quarter and the West half of the Northeast Quarter and the West half of the Southwest Quarter of Section 13; entire Sections 14 and 15; the South half and all of the Northeast Quarter lying south of the West lateral Canal; all of the Northwest Quarter lying south of the West Lateral Canal in Section 16; entire Sections 17, 20, 21, 22, 25, 26, 27, 28, 29, 32, 33; the West half of the Northwest Quarter; the Southwest Quarter; and the West half of the Southeast Quarter of the Southeast Quarter of Section 24; the Northwest Quarter of the North half of the Southwest Quarter of Section 25; the Northwest Quarter and all of the Northeast Quarter lying north and west of Snake River in Section 33; the North half and the Southeast Quarter and all of the Southeast Quarter lying north and west of Snake River Section 34; the East half of the East half of Section 31.

In Township 1 North, Range 37 East Boise Meridian;

Entire Sections 4 and 5; the East half and the Southwest Quarter of Section 6; the North half of Section 7; the West half of the Southwest Quarter and the West half of the East half of the Southeast Quarter of the Southwest Quarter of Section7; the North half and the Southeast Quarter of Section 8; the Northwest Quarter of Section 9.

In Township 1 North, Range 36 East Boise Meridian:

The Southeast Quarter of Section 1; the East half of the Northeast Quarter and the Southeast Quarter of Section 12,

In Bingham County, Idaho:

In Township 1 North, Range 36 East Boise Meridian:

The East half of Section 13, the Southeast Quarter and the East half of the Southwest Quarter of Section 24; entire Section 25; and entire Section 36 lying West of Snake River; the East half of the Southeast Quarter of Section 35.

In Township 1 North, Range 37 East Boise Meridian:

The West half, and the Southwest Quarter, and all of the East half lying West of Snake River in Section 30.

In Township 1 South, Range 37 East Boise Meridian:

The Southwest Quarter of the Southwest Quarter of Section 6; the West half of the Southwest Quarter of Section 7; the West half of the Northwest quarter of Section 18; the West half of the West half of the Southwest Quarter of Section 18; the Northwest Quarter of the Northeast Quarter of Section 19.

In Township 1 South, Range 36 East Boise Meridian:

The East half and the East half of the East half of the Northwest Quarter and the Southwest Quarter of Section 1; the Southeast Quarter of the Southeast Quarter of Section 2; the East half of the East half of Section 11; entire Sections 13, 15 and 24; the South half of the Southeast Quarter of Section 14; the East half and the Southwest Quarter of Section 23; the Southeast Quarter of the Southeast Quarter of Section 22; the Northwest Quarter of the Northwest Quarter of Section 25; the Northwest Quarter and all of the Northeast Quarter lying north of Snake River, and the Northwest Quarter of the Southwest Quarter of Section 26; the East half and the Southwest Quarter and the Southeast Quarter of the Northwest Quarter of Section 27; the South half of the South half and the South half of the Northeast Quarter of the Southwest Quarter, and the South half of the Northwest Quarter of the Northeast Quarter of Section 28; the Southeast Quarter of the Southeast Quarter of Section 29; the South half of the Southeast Quarter of Section 31; the Southwest Quarter, and the North half of the Southeast Quarter and the North half of the South half of the Southeast Quarter, and the East half

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of the Northeast Quarter of Section 32; the North half, and the North half of the Southwest Quarter of Section 33, and the Northwest Quarter of the Southeast Quarter of Section33; the Northwest Quarter of Section 34.

In Township 2 South,Range 36 East Boise Meridian; The North half of the Northwest Quarter of Section 5, and the North half of the Northeast Quarter of Section 6, aggregate acreage 21,494 acres.

TREGO DITCH COMPANY, 900".

Headgate located in the Northwest Quarter of the Southwest Quarter of Section 33, Township 2 South Range 35 E. B. M.

Land: South half of North half, South half of Section 31; Southwest Quarter of the Northwest Quarter, Southwest Quarter, East half of the Southeast Quarter of Section 32; Township 2 South, Range 35 E. B. M. Entire Section 5 West of River, entire Section 6, Township 3 South, Range 35 E. B. M. Southeast Quarter of the Southeast Quarter of Section 1, Township 3 South, Range 34 E. B. M.

NORTH FORK SNAKE RIVER.

ENTERPRISE IRRIGATION DISTRICT, 1,500".

Headgate located on the south side of Fall River in the Northeast Quarter of the Southwest Quarter of Section 23, Township 8 North, Range 42 East of the Boise Meridian.

Land: Commencing at the center of Section 16, Twp. 7 North Range 41 E. B. M., thence East 4620 feet; South 660 feet; East 660 feet; South 660 feet; East 660 feet; South 1320 feet; East 660 feet; South 1320 feet; East 660 feet; South 1320 feet; East 660 feet; South 1980 feet; West 660 feet; South 660 feet; West 1320 feet; South 660 feet; West 660 feet; South 660 feet; West 1320 feet; South 660 feet; West 660 feet; South 1980 feet; West 660 feet; South 660 feet; West 660 feet; South 1320 feet; West 660 feet; South 660 feet; West 660 feet; South 1320 feet; West 660 feet; South 3960 feet; East 660 feet; South 660 feet; West 660 feet; South 660 feet; West 660 feet; South 660 feet; West 660 feet; South 660 feet; West 1320 feet; South 660 feet; West 1320 feet; South 1320 feet; East 1320 feet; South 5940 feet; West 5280 feet; South 660 feet; West 1320 feet; North 660 feet; West 660 feet; North 660 feet; West 1980 feet; South 1980 feet; West 2640 feet; South 660 feet; West 1320 feet; South 660 feet; west 1320 feet; South 1320 feet; West 1320 feet to the Southwest Corner of SW¼ Sec. 18 Tp. 6 N. R. 41 E. B. M., thence North 1320 feet; East 660 feet; North 1320 feet; East 660 feet; North 1320 feet; East 660 feet; North 1320 feet; East 1320 feet; North 3960 feet; East 660 feet; North 660 feet; East 1320 feet; North 660 feet; East 5280 feet; North 1320 feet; West 660 feet; North 2640 feet; East 660 feet; North 660 feet; East 660 feet; North 1980 feet, West 660 feet; North 660 feet; East 660 feet; North 660 feet; East 660 feet; North 660 feet; East 330 feet; North 1320 feet; East 330 feet; North 1980 feet; East 660 feet; North 660 feet; East 1320 feet; North 660 feet; East 660 feet; North 1980 feet to the Northwest corner of Section 27 Twp. 7 N. R. 41 E. B. M., thence East 660 feet; North 2640 feet; West 330 feet, North 1320 feet; West 330 feet; North 1320 feet; East 660 feet; North 1320 feet; East 660 feet; North 660 feet; East 1320 feet; North 660 feet to the places of beginning.

ROXANA CANAL COMPANY, 1,300".

Headgate located on the north side of the North Fork of Teton River, in the NE¼ NE¼ of Section 6 in Township

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6 North Range 40 East of the Boise Meridian.

Land; $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 35; $S\frac{1}{2}$ $N\frac{1}{2}$ and $S\frac{1}{2}$ Sec. 26; $NE\frac{1}{4}$, $E\frac{1}{2}$ $NW\frac{1}{4}$ and $SE\frac{1}{4}$ Sec. 35, all of Sec. 36, except $E\frac{1}{2}$ $NE\frac{1}{4}$, all in Township 7 North of Range 39 East of the Boise Meridian.

FARMERS FRIEND CANAL COMPANY, LTD., 2,350".

Headgate located on the south side of the North Fork of Snake River in the $SW\frac{1}{4}$ $NE\frac{1}{4}$ of Section 33 in Township 8 North of Range 41 East of the Boise Meridian.

Land; The Northeast Quarter of Section 12, the Northeast Quarter and the East half of the Southeast Quarter of Section 13, all of Section 25 except the Southeast Quarter of the Southeast Quarter; the West half and part of the East half of Section 24; the Southwest Quarter of Section 26; the North half of the Northwest Quarter and the South half of Section 27, in Township 7 North of Range 40 East of the Boise Meridian; the South half of the South half of Section 5; all of Section 7; all of Section 18 excepting the Southeast Quarter; the North half of Section 19 in Township 7 North Range 41 East of the Boise Meridian.

CONSOLIDATED FARMERS CANAL COMPANY, Ltd., 3,900".

Headgate located on the north side of the North Fork of Snake River in the Southeast Quarter of the Northeast Quarter of Section 10 in Township 7 North Range 40 East of the Boise Meridian.

Land; Sections 1 and 2, all that part of Section 3 lying east of the North Fork of Snake River, the East half of the Southwest Quarter of Section 4 lying east of the said North Fork Snake River, all that part of Section 9 lying east of said North Fork of Snake River, sections ten and eleven, the East half of Section 12, the North half and the North half of the South half of Section 21, Township 6 North Range 39 E. B. M.

All of Section 25 lying south of the North Fork of Snake River, all that part of the Southwest Quarter of Section 34 lying East of said North Fork of Snake River, the South half of Section 35, the West half of the Northeast Quarter, the Northwest Quarter, the Southeast Quarter, the South half of the Southwest Quarter of Section 36 in Township 7 North Range 39 East of the Boise Meridian.

All that part of Section 19 south of the North Fork of Snake River, Section 20, the North half of Section 21, the Northwest quarter of Section 29, all of Section 30, the North half of the Northeast Quarter and the Northwest Quarter of the Southwest Quarter of Section 31 in Township 7 North Range 40 East Boise Meridian.

TWIN GROVES CANAL AND IRRIGATION CO., 1,500".

The South half of Section 6 and the Northwest Quarter of Section 7, Township 7 North, Range 41 E. B. M.; the Southwest Quarter of Section 1, all of Sections 12, 13, and 14 and all of Sections 10 and 11 lying South of Snake River, and the North half of the Southeast Quarter of Section 15 and the Northeast Quarter of Section 22 and the Northwest Quarter of Section 23 and the West half of the west half of Section 24, all in Township 7 North, Range 40 E. B. M.

Lots 1 to 16 of Block 24 of the Townsite of South St. Anthony, Idaho; Lots 11 to 20 of Block 5 of the Bartlett's Addition to South St. Anthony and Lots 4 to 10, Block 4 of the Bartlett's Addition to South St. Anthony, Idaho, Lots 1 to 16 of Block 37 of the Townsite of South St. Anthony, Idaho.

JRP035138

NORTH FORK RESERVOIR COMPANY,

To the North Fork Reservoir Company of the waters of Henry's lake and its tributaries to the amount of 79,350 acre feet per annum for storage, and of the waters of Dry Creek to the amount of 4,000 acre feet per annum for storage, all to be stored in its reservoir at Henry's Lake, Idaho, with a priority date of May 15th, 1917.

Land: Lands lying in Township Six, Seven and Eight, North of Range Thirty-eight, Thirty-nine, Forty and Forty-one East Boise Meridian.

North Fork Reservoir Co. Point of Diversion: A point in lot six of section 26, township 15 North Range 45 E. B. M., that bears south 38° 53' W. 2775 feet from the quarter corner common to sections twenty three and twenty six, above township and range, in the outlet of Henry's Lake; the lands to be irrigated are more particularly designated as being the identical lands which are now being irrigated by the following named canals which are stockholders in the North Fork Reservoir Company, to-wit: St. Anthony Union Canal Company, Salem Union Canal Company, Independent Canal Company, Last Chance Canal Company, Consolidated Farmers Canal Company, and the Main Irrigating Company, and being the same land to which water was decreed by and has since been used upon, under the terms of the decree referred to herein as the Rexberg decree,

William B. Reyburn, Aug. 27, 1910, 3.3 Sec. feet.

William B. Reyburn, Oct. 5, 1912, 1.5 Sec. feet.

William Koosh, Sept. 15, 1913, 5.0 Sec. feet.

Fannie B. Freufert, Sept. 30, 1915, 1.1 Sec. feet.

SNAKE RIVER AND ITS TRIBUTARIES FOR POWER PURPOSES,

UTAH POWER AND LIGHT COMPANY.

FURTHER ORDERED, ADJUDGED AND DECREED that there be and there is hereby awarded to the defendant and cross-complainant, Utah Power and Light Company, the right to use the waters of Snake River and its tributaries for power purposes at the respective places and in the respective quantities with respective dates of priorities as follows, to-wit:

1,000 cubic feet per second, priority date July 16, 1913, under State of Idaho license No. 9242, at its Ashton plant located in Section 26, Township 9 North, Range 42 East Boise Base and Meridian.

500 cubic feet per second, with priority date November 1st, 1915, under State of Idaho license No. 11921, at its Ashton plant hereinbefore described.

1,000 cubic feet per second, with priority date March 7th, 1924, under State of Idaho license No. 16006, at its Ashton plant hereinbefore described.

700 cubic feet per second, with priority date December 20th, 1913, under state of Idaho license No. 10009, for use at its St. Anthony power plant located in Section 1, Township 7 North Range 40 East Boise Base and Meridian.

1,500 cubic feet per second, with priority date of December 29th, 1905, under State of Idaho license No. 445, for use at its Idaho Falls plant, located in Section 35, Township 2 North, Range 37 East Boise Base and Meridian.

100 cubic feet per second, with priority date of September 7th, 1915, under State of Idaho license No. 11600 for use at its Shelley power plant located in Section 34, Township 2 North, Range 37 East Boise Base and Meridian.

JRP035139

1,500 cubic feet per second, with priority date November 14th, 1924, under that certain appropriation made November 14th, 1924, and under the water permit and license to be issued thereunder of the State of Idaho designated by the Commissioner of Reclamation of the State of Idaho as application No. 22927, and water permit No. 16190 issued January 30th, 1925, by the Commissioner of Reclamation of the State of Idaho, to be diverted by means of a dam located in the channel of Snake River, the center of which bears south 60° 41' W. 2399 feet from the quarter section corner on the north boundary line of Section 15, Township 1 North, Range 37 East Boise Base and Meridian, for use at the Cem State power plant, and returned to the channel of said stream at a point which bears south 55° 54' W. 7014 feet from the quarter section corner on the north boundary line of Section 15, Township 1 North, Range 37 East Boise Base and Meridian.

All of the rights hereby awarded and decreed are made subject to the terms of the stipulation incorporated herein and made a part hereof.

To the Secretary of the Interior of the United States of America, and his successor in office, for use upon the various projects which have heretofore or may hereafter become entitled to the same by reason of contracts with the United States therefor, the water filed upon by the United States in connection with the construction of the American Falls Reservoir under permit number 15154, and reservoir permit number R-269, under date of priority of March 30th, 1921, the amount of water to be decreed to the Secretary of the Interior of the United States and his successors in office for such use under said date of priority of March 30th, 1921, to be One Million seven hundred Thousand (1,700,000) acre feet per annum for storage in the American Falls Reservoir and Eight Thousand (8,000) second feet for direct diversion. It is understood and agreed that paragraph two of the stipulation herein does not apply to the said rights of priority of March 30, 1921, provided for in this paragraph or the rights decreed in the Foster and Rexburg decrees.

FURTHER ORDERED, ADJUDGED AND DECREED that the rights decreed to the parties who joined in the foregoing Stipulation, or their predecessors in interest in that certain Decree commonly known as the Foster Decree, and in that certain Decree commonly known as the Rexburg Decree, both as to the dates of priority and the amounts of the rights are recognized and binding upon all of the parties who signed said Stipulation to the same extent as if the said rights included in the said Foster Decree had been included in the said Rexburg Decree, and said rights in the Rexburg Decree had been included in the Foster Decree; and that as between the parties to the said Stipulation, IT IS ORDERED, ADJUDGED AND DECREED that all of the provisions of both decrees shall be construed binding upon said parties.

FURTHER ORDERED, ADJUDGED AND DECREED that there be and there is hereby awarded to the Twin Falls Canal Company 600 cubic feet per second of the waters of Snake River to be diverted at the Milner Dam, with a priority date of December 22nd, 1915; and there is hereby awarded to the defendant and cross-complainant, North Side Canal Company, 300 cubic feet per second of the waters of Snake River to be diverted at the Milner Dam, with a priority date of December 22nd, 1915. The right to use the waters hereby awarded to said Twin Falls Canal Company and North Side Canal Company are hereby made appurtenances of the lands irrigated by the respective canals as described in the said Foster Decree.

JRP035140

FURTHER ORDERED, ADJUDGED AND DECREED that the rights decreed to the several parties in the said Decree known as the Foster Decree, copy of which is hereto attached and made a part hereof, are recognized and confirmed by all parties to this action; and that the said Foster Decree is hereby made a part of this decree and all the provisions thereof are hereby declared to be binding upon all of the parties to this action; the rights therein decreed to be subject, however, to such rights as were decreed under the said Rexburg Decree under dates of priority earlier than the priorities awarded under the said Foster Decree that a copy of said Rexburg Decree is hereto attached and made a part hereof, and the said Rexburg Decree, and all the provisions thereof are hereby declared to be binding upon all of the parties to this action, subject however, to such rights of priority date as were established in the said Foster Decree.

AND IT IS FURTHER ORDERED, ADJUDGED AND DECREED that all the rights and priorities awarded both in the Foster Decree and the Rexburg Decree be subject to all the terms and conditions set out in the said decrees as if hereby co-related and combined as one decree, and all the rights awarded in both decrees shall be considered binding upon all the parties to this action and shall be given effect in the amounts and under the respective dates of priority awarded in each of said decrees, with the same force and effect as if all of such rights described in the Foster Decree and the Rexburg Decree respectively, in their respective amounts and respective priorities, had been awarded in single decree.

Nothing herein contained shall be deemed to in any way waive, limit, change or vary any right or rights that the North Side Canal Company, Limited, may obtain under that certain permit No. 15001, with a priority date of August 6, 1920, for the diversion of 1500 cubic feet per second of time of the waters of Snake River at or near Milner Dam, (which said permit is claimed to be a valid and subsisting permit at this time) if, as and when actual diversions are made thereunder or proofs are submitted thereunder or license issued thereon, in conformity with the Statutes of the State of Idaho.

The Foster Decree, to which reference is made herein, includes a decree dated June 20th, 1913, signed by Edward A. Walters, District Judge, and an amendment thereto, dated September 13th, 1916, signed by Wm. A. Babcock, District Judge, and is annexed hereto marked Exhibits "A" and "B". The Rexburg Decree aforesaid is annexed hereto as Exhibit "C".

The court retains jurisdiction of the cause for one year for the purpose of making corrections to this decree. By agreement of counsel, and it is hereby ordered, that the defaults of the Idaho Irrigation District and the Aberdeen-Springfield Canal Company, are hereby entered.

Each party shall pay his own costs.

There is hereby decreed to defendant and cross-complaint William F. Curtemon 150 inches of the waters of Duck Creek under State of Idaho License No. 12778, priority date Aug. 17th, 1912, for use on the following described lands: S½SE¼, NE¼ of SE¼ Sec. 25; NW¼ SW¼ Sec. 24 Tp. 15 S. R. 42 E. B. M.

Done in open court this 25th day of June, 1929.

Charles C. Cavanah
District Judge

JRP035141

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 17

Stipulation, *Woodville Canal Co. v. Clark & Edwards Canal & Irr. Co., et al*
(D. Idaho, Jun. 25, 1929)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

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August 11th 1932

Mr. Paul T. Petersen
Attorney At Law
Pocatello Idaho

Dear Mr. Petersen:

I am sending you herewith the copy of the stipulation in the Woodville Decree, that you so kindly loaned to me the other day.

I am sorry to have bothered you about it but I could not seem to get one anywhere else.

With sincerest wishes I am,

Sincerely,

District Counsel.

GL2113

Reproduced from the Holdings of the National Archives at Riverside

IN THE DISTRICT COURT OF THE UNITED

STATES, FOR THE DISTRICT OF IDAHO, EASTERN

DIVISION.

TWIN FALLS CANAL COMPANY, a corporation,

Plaintiff,

vs.

STIPULATION.

CLARK and EDWARDS CANAL and IRRIGATING COMPANY, et al.,

Defendants.

I.

A. It is hereby stipulated and agreed that the priority dates heretofore decreed by the District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Twin Falls, in the case entitled Twin Falls Canal Company, plaintiff, Vs. Charles N. Foster, et al., defendants, dated and filed June 20th, 1919, and signed by Edward A. Walters, District Judge, hereinafter referred to as the Foster decree, and the District Court of the Sixth Judicial District of the State of Idaho, in and for the County of Fremont, in the case entitled Fexburg Irrigation Company, et al., plaintiffs, Vs. Teton Irrigation Canal Company, et al., defendants, dated and filed December 16th, 1910, and signed by Judge J. M. Stevens, hereinafter referred to as the Fexburg decree, shall not be changed or disturbed by the decree to be entered herein, and it is not the purpose of this stipulation to agree to any changes in priorities awarded by said Foster and Fexburg decrees.

B. It is hereby stipulated and agreed that none of the water rights to be decreed in this case shall be awarded dates of priority earlier that January 22nd, 1916, except as appears in paragraph 3B-3C hereof.

C. Further stipulated and agreed that in the distribution of water under the decree to be entered in this cause of action, the watermaster or other officer to be in charge

GL2114

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of such distribution, shall give precedence and consider as prior and superior to the rights to be decreed in this suit, as set forth in paragraph 3-A hereof, all rights, both decreed rights as indicated in said Foster and Teeburg decrees, and license rights, having dates of priority earlier than January 22nd, 1916, including the rights for storage in the Jackson Lake Reservoir under filings made in the State of Wyoming, and the decree to be entered herein shall so provide.

2.

It is further stipulated and agreed that the rights to be decreed in the above entitled cause of action and listed and set out in paragraph three hereof, shall be for use only on lands which have been heretofore irrigated from the waters of the Snake River and its tributaries, and shall not be subject to transfer to any lands not heretofore irrigated, and the decree herein shall provide that if the owners, or their successors in interest, of any of the rights as listed and set out in paragraph three hereof, to be decreed herein, shall attempt to transfer the same to lands not heretofore irrigated, such rights shall immediately lapse and become void and of no effect.

3.

The plaintiff and all defendants who join in this stipulation agree that if this stipulation be signed by the attorneys for the owners of all the ditches and rights listed in this paragraph, additional water rights under priority of January 22nd, 1916, may be decreed to the owners of the ditches listed under sub-head 3-A in the amount set after the name of each of the following ditches, to wit:

South Fork and Main Snake River

3-A	J. H. Stone Ditch	40 miner's inches
	Butler Island Ditch	500 " "
	Parsons Ditch	900 " "
	Enterprise Canal Company Ditch	3100 " "
	Clark and Edwards Ditch	1500 " "
	Woodville Ditch	1900 " "
	Dilts Ditch	500 " "
	Lowder Slough Ditch	1650 " "
	North Rigby Ditch	1500 " "
	West LaBelle Ditch	1000 " "
	Paris and Lewisville Ditch	4200 " "
	Progressive Irrigation District Ditch	15000 " "
	Kite and Nord Ditch	250 " "
	White Ditch	500 " "
	Judy Canal & Irrigation Company Ditch	6000 " "

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3 A	LaSelle Irrigation Company Ditch	1300	miner's inches.
	Cheney Ditch	300	" "
	Wearyrick Ditch	1500	" "
	Farmers Friend Ditch	8000	" "
	Burgess Ditch	10000	" "
	Snake River Valley Irrigation District Ditch	3400	" "
	Reid Canal Ditch	2000	" "
	Rigby Canal Ditch	4900	" "
	Liberty Park Irrigation Company Ditch	800	" "
	Texas Slough Irrigation & Canal Company Ditch	800	" "
	Wm. J. Kremer Ditch (Mattson & Craig)	700	" "
	H. W. Forbush Ditch (Cheney Ditch)	100	" "
	John [illegible] Ellis Ditch	100	" "
	J. R. Ansberger Ditch	150	" "
	Peoples Canal Company Ditch	10,000	" "
	Watson Slough Canal	1800	" "
	Danskin Ditch Company Ditch	1000	" "
	Harrison Canal Company Ditch	4800	" "
	New Lavaside Canal Company Ditch	1500	" "
	Riverside Canal Company Ditch	1500	" "
	New Sweden Irrigation District Ditch	7250	" "
	NORTH FORK AND TRIBUTARIES.		
	Enterprise Irrigation District Ditch	1500	" "
	Roxana Canal Company Ditch	1300	" "
	Farmers Friend Canal Company Ditch	2350	" "
	Consolidated Farmers Canal	3900	" "
	Twin Grove Canal and Irrigation Company Ditch	1500	" "
	Trego Ditch Company	900	" " Main Snake River.

3 B. The following license rights may also be decreed as hereinafter listed for the amounts not exceeding the quantities stated after the name of the canal owners with dates of priority as indicated in each respective case, to wit:

North Fork Reservoir Company,	79,350 acre feet May 15, 1917.
North Fork Reservoir Company,	50 cubic feet per second of the waters of Dry Creek up to 4000 acre feet. May 15, 1917.
William B. Reyburn	3.2 second feet, Aug 27, 1910.
William B. Reyburn,	1.5 second feet, Oct. 5, 1912.

GL2116

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William Enoch — 6.0 second feet, Sep - 15, 1915.

Fannie S. Treufert — 1.1 second feet, Sept. 20, 1915.

S C. to the defendant and cross-complainant Utah Power and Light Company for power purposes as follows:

Under State of Idaho license No. 9242, 1000 cubic feet per second, priority date January 15th, 1914.

Under State of Idaho License No. 11921, 500 cubic feet per second, with priority date November 1st, 1919.

Under State of Idaho License No. 10006 for 1000 cubic feet per second, with priority date March 7th, 1924.

Under State of Idaho License No. 10,003, 700 cubic feet per second with priority date December 20th, 1913.

Under State of Idaho license No. 445, 1500 cubic feet per second, with priority date December 29th, 1905.

Under State of Idaho license No. 11,500, 100 cubic feet per second, priority date September 7th, 1915.

Under State of Idaho water permit and the license to be issued thereunder, 1500 cubic feet per second, with priority date November 14th, 1924;

It is understood, however, that each of the parties to this stipulation reserves the right to contest any and all claims of any and all parties who do not join in this stipulation.

4.

IT IS FURTHER STIPULATED AND AGREED that there shall be decreed in the above entitled cause of action, to the Secretary of the Interior of the United States, and his successors in office, forever upon the various projects which have heretofore or may hereafter become entitled to the same by reason of contracts with the United States thereof, the water filed upon by the United States in connection with the construction of the American Falls Reservoir under permit number 15164, and the reservoir permit number 4-269, under date of priority of March 20th, 1921, the amount of water to be decreed to the Secretary of the Interior of the United States and his successors in office for such use under said date of priority March 20th, 1921, to be one million

GL2117

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Seven Hundred Thousand (1,700,000) acre feet per annum for storage in the American Falls Reservoir and Eight Thousand (8,000) second feet for direct diversion. It is understood and agreed that paragraph two hereof does not apply to the said rights of priority of March 30, 1921, provided for in this paragraph of the rights decreed in the Foster and Resure decrees.

6.

It is further stipulated and agreed that there is at present an action pending in the United States District Court in and for the District of Idaho, Southern Division, wherein the North Side Canal Company, Limited, is plaintiff and Twin Falls Canal Company, et al., are defendants, which said action is being brought to alter or change certain provisions of the Foster Decree and in which the parties thereto either have stipulated, or will stipulate, that a decree be entered giving and allowing North Side Canal Company, Limited, in addition to the maximum right of 5000 cubic feet per second, provided in the Foster decree, a further and additional right of 300 cubic feet to be diverted at Milner Dam with a priority of December 23, 1915; and that a decree so providing will be entered in said cause pursuant to said stipulation; and that there is at present pending an action in the District Court of the Eleventh Judicial District of the State of Idaho, in and for the County of Twin Falls, wherein Twin Falls Company is plaintiff and C. Clyde Baldwin, et al., are defendants in which a decree will be entered giving and granting unto the said Twin Falls Canal Company, in addition to the right granted it under the Foster decree, a further right of 600 cubic feet per second, to be diverted at Milner Dam, with a priority date of December 22, 1915.

And it is stipulated and agreed that said rights in in this paragraph above mentioned and each of them, shall be for the purpose of this stipulation, and the decree to be entered herein, deemed to be of the same force and effect as if they had been included in the original Foster Decree, and that wherever the term "Foster Decree" is used herein, it shall be deemed to include the two rights in this paragraph above mentioned and that said rights shall have any and all rights and privileges herein granted to the other rights enumerated in the said Foster Decree.

6.

It is further stipulated and agreed that nothing herein contained shall be deemed to in any way waive, limit, change or vary any right or rights that the North Side Canal Company, Limited, may obtain under that certain Permit No. 15051 with a priority date of August 6, 1920, for the diversion of 1500 cubic feet per second of time of the waters of Snake River at or near

GL2118

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other dam (which said permit is claimed to be a valid and subsisting permit at this time), if, as and when actual diversions are made thereunder or proofs are submitted thereunder or license issued thereon, in conformity with the Statutes of the State of Idaho.

7.

It is further particularly stipulated and agreed by and between the parties hereto that nothing herein contained shall in any way take away from, limit, vary or change the right, power or jurisdiction of the Courts of the State of Idaho, to construe, interpret or enforce the decrees herein referred to as the Foster Decree and the Rexburg Decree, and that nothing herein contained shall be deemed to be a waiver of any jurisdiction to the courts of the United States of America, of any controversies arising out of, or that may arise out of, or be dependent upon either the said Foster or the Rexburg decrees.

8.

The rights decreed in that certain decree commonly known as the Foster Decree and in that certain decree commonly known as the Rexburg Decree, both as to dates of priority and amounts of the rights are recognized and binding upon all of the parties to this stipulation, to the same extent as if the rights included in the said Foster Decree had been included in the said Rexburg decree and the said rights in the Rexburg Decree had been included in the Foster Decree, and it is agreed that all of the provisions of both decrees shall be considered binding upon all of the parties to this stipulation.

Dated this _____ day of _____, A. D. 1929.

GL2119

EXHIBIT 18

Affidavit of Publication, American Falls Press
(American Falls, Idaho) (May 18, 1931)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Affidavit of Publication

County of Power, } SS.
State of Idaho, }

O. J. Crane, being first duly sworn on his oath, states:

That he is the printer of the American Falls Press, a newspaper of general circulation in Power County, Idaho, published weekly at American Falls in said county; that said newspaper has been published in said county uninterruptedly and continuously for over seventy-eight consecutive weeks, prior to the first publication of the annexed notice or advertisement:

That the annexed notice or advertisement was published as per clipping attached in the regular and entire edition of said newspaper and not in any supplement thereof for four successive weekly issues thereof, the date of the first publication being the 16th day of April, 1931, the date of the last publication being the 7th day of May, 1931.

(Signed) O. J. Crane

Subscribed and sworn to before me this 18th day of May, 1931.

Notary public, residing at American Falls, Idaho.

My Commission expires the 8th day of Dec, 1935.

(SEAL).

(April 16-23-30-May 7)

NOTICE FOR PUBLICATION.

Notice is hereby given that at 2 P. M., on the 16th day of May, 1931, at Burley, County of Cassia, State of Idaho, before Anna J. Larson, notary public, proof will be submitted of the completion of works for the diversion of 1,800,000 acre-feet of the waters of Snake River, in accordance with the terms and conditions of a certain permit heretofore issued by the Commissioner of Reclamation of the State of Idaho.

1. The name of the person or corporation holding said permit is United States of America.

2. The postoffice address of such person or principal place of business of such corporation is Reclamation Bureau, Burley, County of Cassia, State of Idaho.

3. The number of such Permit is R-269, and the date set for the completion of such work is May 18, 1931.

4. Said water is to be used for irrigation and domestic purposes.

5. Said works of diversion will be fully completed on the date set for such completion, and the amount of water which said works are capable of conducting to the place of intended use, in accordance with the plans accompanying the application for such permit, is 1,800,000 acre-feet.

6. The amount of lands for which said water is available is 1,500,000 acres, particularly described as follows: The Snake River Valley and lower half of Wood River Valley.

R. W. FARIS,
Commissioner of Reclamation.

R-269

Affidavit of Publication

County of Power,
State of Idaho, } SS.

O. J. Quane, being first duly sworn on his oath, states:

That he is the printer of the American Falls Press, a newspaper of general circulation in Power County, Idaho, published weekly at American Falls in said county; that said newspaper has been published in said county uninterruptedly and continuously for over seventy-eight consecutive weeks, prior to the first publication of the annexed notice or advertisement:

That the annexed notice or advertisement was published as per clipping attached in the regular and entire edition of said newspaper and not in any supplement thereof for four successive weekly issues thereof, the date of the first publication being the 16th day of April, 1931, the date of the last publication being the 7th day of May, 1931.

(Signed) O. J. Quane

Subscribed and sworn to before me this 18th day of May, 1931.

W. C. Goodheart

Notary public, residing at American Falls, Idaho.

My Commission expires the 8th day of Dec, 1933.

(SEAL).

(April 16-23-30-May 7)

NOTICE FOR PUBLICATION.

Notice is hereby given that at 2 P. M., on the 16th day of May, 1931, at Burley, County of Cassia, State of Idaho, before Anna J. Larson, notary public, proof will be submitted of the completion of works for the diversion of 1,300,000 acre-feet of the waters of Snake River, in accordance with the terms and conditions of a certain permit heretofore issued by the Commissioner of Reclamation of the State of Idaho.

1. The name of the person or corporation holding said permit is United States of America.

2. The postoffice address of such person or principal place of business of such corporation is Reclamation Bureau, Burley, County of Cassia, State of Idaho.

3. The number of such Permit is [illegible] and the date set for the completion of such work is May 15, 1931.

4. Said water is to be used for irrigation and domestic purposes.

5. Said works of diversion will be fully completed on the date set for such completion, and the amount of water which said works are capable of conducting to the place of intended use, in accordance with the plans accompanying the application for such permit, is 1,300,000 acre-feet.

6. The amount of lands for which said water is available is 1,500,000 acres, particularly described as follows: The Snake River Valley and lower half of Wood River Valley.

R. W. FARIS,
Commissioner of Reclamation.

R-269

AMERICAN FALLS PRESS

O. J. QUANE, EDITOR

AMERICAN FALLS, IDAHO

April 10, 1931.

Hon. R. W. Faris,

Boise, Idaho.

Dear Sir:

We are in receipt of copy of "Notice For Publication" of the application of B. E. Stoutemyer.

The first insertion of this notice will be given in our issue of April 16, 1931.

Respectfully,

O. J. Quane.

O. J. Quane.

R-269

Form No. 11

NOTICE TO ACCOMPANY THIS LETTER MUST BE MADE IN DUPLICATE

(Date) April 9th 1931

(P. O.) Burley Idaho

TO THE COMMISSIONER OF RECLAMATION:

Boise, Idaho.

Dear Sir:

You are hereby authorized to have the attached notice published at my expense in the American Falls Press of American Falls Ida, published in the county in which the works are situated.

P. E. Montemyer
Dist Counsel. U. S.
Reclamation Bureau

(In case of canals or other works designed to divert and carry more than 50 cubic feet of water per second, the following certificate must be signed by a well-known and competent engineer.)

I hereby certify that the facts set forth in the attached notice are true.

E. B. Darlington
Engineer.
Superintendent,
Bureau of Reclamation

R-269

R-269

Form No. 11-A

STATE OF IDAHO

DEPARTMENT OF RECLAMATION

BOISE, IDAHO

Date April 9, 1931

The American Falls Press
American Falls, Idaho

DEAR SIR:

Enclosed you will find notice for publication once a week for four consecutive weeks prior to May 16, 1931, the date set for proof, the expense of the publication to be paid by the applicant, ~~B. E. Stoutemyer, Dist. Counsel, Reclamation Bureau (c/o) E.B.Darlington) Burley, Idaho~~

to whom you should furnish proof of publication on or prior to the date set for proof.

Please acknowledge receipt of this notice and furnish this office with a copy of the first publication.

Very truly yours,

R. W. FARIS

Commissioner of Reclamation

R-269

May 16

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 19

Letter, USBR District Counsel B.E. Stoutemyer
to American Falls Press (May 4, 1931)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

603 Postoffice Building
Portland, Oregon
May 4, 1931

American Falls Press,

American Falls, Idaho.

Gentlemen:

Under date of April 9, 1913, Mr. R. W. Faris, state commissioner of reclamation, transmitted to you an order for publication of notice of proof of completion of works under Permit R-269.

As the bill for the publication of this notice is to be paid by the federal government, the usual government forms for the publication of government notices will be necessary. We are enclosing the usual "advertising order" signed by the acting commissioner of the Bureau of Reclamation; also "statement of advertising rates" to be filled out by you and returned with your bill; also "public voucher for advertising" on which your bill should be made out.

When the publication is complete, your bill on the enclosed form of voucher, together with your statement of advertising rates duly executed and sworn to, should be forwarded to the Reclamation Bureau, Burley, Idaho, for payment by the fiscal agent at that office.

The order for publication, forwarded to you on April 9, 1931 by Mr. R. W. Faris, should be returned to this office.

Very truly yours,

B. E. Stoutemyer
District Counsel

encls

copy to Mr. Faris

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 20

Proof of Completion of Works – Deposition of Holder
(May 16, 1931)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Form 15

PERMIT NO. R-269

Proof of Completion of Works

DEPOSITION OF HOLDER

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. United States of America, acting through E. B. Darlington, Superintendent, Bureau of Reclamation, Burley, Idaho.

Ques. 2. If acting in behalf of a corporation, state its name, principal place of business, your position with reference to same, and your authority for appearing in its behalf.

Ans. United States of America - Post Office Address - Bureau of Reclamation, Burley, County of Cassia, State of Idaho.

Ques. 3. State number and date of permit, amount of water you are authorized to divert, source, and point of diversion.

Ans. The number of the permit is R-269. The date of the permit is March 30, 1921. The amount authorized to be stored is 3,000,000 acre feet. Works are completed for 1,800,000 acre feet. The source of said water is Snake River. The outlet of the reservoir is located North 62° West 2150 feet distant from the southeast corner of Sec. 30, T. 7 S., R. 31 E., B.M., in Power County, Idaho.

Ques 4. State purpose for which water is to be used, and, if for irrigation, state the number of acres and give description of the land you intend to reclaim.

Ans. Water is used for domestic purposes, irrigation and power. Number of acres irrigated, 1,500,000. Lands in Snake River and Wood River Valleys, as described in permit.

Ques. 5. State whether or not the water has been turned into your works of diversion, and, if so, when and to what extent.

Ans. Water has been stored in reservoir to its full capacity. Date, 1928 and 1929.

Ques. 6. State whether or not the works of diversion are fully completed, and whether or not they comply in all respects with the terms of the permit.

Ans. Storage works are fully completed. They comply with terms of permit.

Ques. 7. If the works of diversion do not comply with all the terms of your permit, state fully those particulars in which there is any variance.

Ans. --

Ques. 8. Give description of works, state dimensions and capacity of each part, and give cost of same.

Ans. Storage works consist of dam, spillway and outlet works in Snake River, near town of American Falls. The length of the dam is about 5280 ft. There are 20 discharge gates, each 5'5' with capacity of 1300 second feet and 15 spillway gates, 33 ft. x 11'-4" and capacity of 4000 second feet each. The total cost is about $7,500,000.

* Gates 5ft x 5ft.

(Sign here.) E. B. Darlington

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, in Burley, County of Cassia, State of Idaho, on this 16th day of May, A. D. 1931

Notary Public for State of Idaho, Residing at Burley, Idaho

My Commission expires July 25, 1931

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 21

Proof of Completion of Works – Deposition of Witness
(May 16, 1931)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Form 14

The Depositions of two Witnesses, in this form, taken separately, required in each case.

Permit No. R-269

Proof of Completion of Works

DEPOSITION OF WITNESS

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. Dana Templin, Burley, Idaho; occupation civil engineer; post office address, Burley, Idaho.

Ques. 2. Are you acquainted with United States of America, the holder of Permit No. R-269, authorizing the ~~diversion of~~ storage 3,000,000 acre ~~second~~ feet of the waters of Snake River, at American Falls Reservoir for irrigation purposes? How long have you known him, and where does he reside?

Ans. Yes.

Ques. 3. Have you read or heard read said Permit No. R-269, and are you familiar with its terms and conditions?

Ans. Yes.

Ques. 4. (If for irrigation purposes). Are you acquainted with the land proposed to be irrigated under said permit? If so, describe same, state its character, and give your estimate of the amount of water required for its profitable cultivation.

Ans. Yes. Lands in Snake River and Wood River Valleys, as described in Permit. Arable land susceptible of irrigation. Water requirement varies from one second foot to 80 acres, to one second foot to 25 acres.

Ques. 5. Are the works of diversion fully completed and of sufficient capacity to convey the entire amount of water set out in the permit from point of diversion to place of use?

Ans. Storage works are fully completed to storage capacity of 1,800,000 acre feet.

Ques. 6. Describe the works of diversion as they now exist, and give your estimate of their capacity.

Ans. [redacted] Storage works consist of dam, spillway and out-let works in Snake River, near town of American Falls. The length of the dam is about 5260 ft. There are 20 discharge gates, each 5'x5' with * capacity of [redacted] 1300 second feet and 15 spillway gates, 33 ft. x 11'-4" (~~Sign here.~~) and capacity of 4000 second feet each. The total cost is about $7,500,000. (Sign here.) Dana Templin

* Gates 5'x5'

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, at my office in Burley County of Cassia, State of Idaho, on this 16th day of May, A. D. 1931.

Notary Public for Idaho, residing at Burley, Idaho

My commission expires July 25, 1931.

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 22

Letter, USBR District Counsel B.E. Stoutemyer to
Idaho Commissioner of Reclamation E.V. Berg
(Jun. 23, 1942)

Affidavit of Michael C. Orr – Feb. 21, 2012

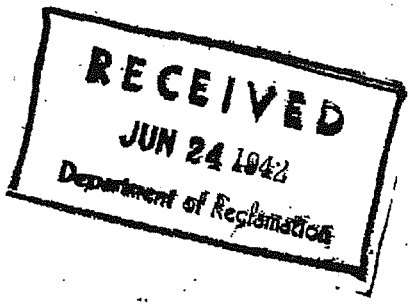
American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Jth
Permit
269 R.

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION
603 Post Office Building
Portland, Oregon
June 23,1942



Mr. E. V. Berg,
State Commissioner of Reclamation,
Boise, Idaho.

Dear Mr. Berg:

Upon my return from a trip to Idaho, I find your letter of June 8 on my desk.

While the measured or estimated capacity of the American Falls Reservoir above ground is considered to be 1,700,000 acre-feet, it has been found that we have a substantial amount of what is called bank storage capacity in connection with this reservoir; that is to say, when the reservoir is filling the water runs out into the loose material on the borders of the reservoir and then when the reservoir is drawn down this underground or bank storage drains back into the reservoir. I think this probably amounts to as much as 100,000 acre-feet.

Another factor which makes it possible to store in many years more than the estimated above ground capacity of the reservoir is the fact that it frequently happens that we draw out some of the stored water and then a little rise in the river at a later date or a shutting down of some of the canals on account of rain or some other cause enables us to refill the emptied capacity so that part of the capacity is frequently filled more than once in a season.

Inasmuch as we made satisfactory proof of completion of capacity of 1,800,000 acre-feet and a certificate was issued for that amount, I think that question should be considered settled and that all that should be required at this time is the proof of beneficial use of the stored water.

Aside from this question of the difference between the 1,700,000 acre-feet and the 1,800,000 acre-feet, the plan outlined in your letter is satisfactory to me; that is, if there is a license issued for storage in the American Falls Reservoir up to the 1,800,000 acre-feet capacity of the reservoir and another license for the 1700 second-feet which has been diverted out of natural flow into the Milner-Gooding canal, I would think that the two

R-269

licenses in that form would cover the necessary requirements of the project.

Very truly yours,

B. E. Stoutemyer
District Counsel

P-269

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FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 23

Permit No. R-269 - Certificate Of Completion of Reservoir
And Right To Store Water (Jul. 12, 1932)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

STATE OF IDAHO

Department of Reclamation

Boise

In the matter of the Application of the United States of America for Extension of Time for Proof of Completion of Works under Permits Nos. R-269 and 15237

Order Granting Extension of Time For Completion of Works

WHEREAS, The United States of America, acting through B. E. Stoutemyer, District Counsel, Bureau of Reclamation of the Department of the Interior, has made formal application for extension of time within which to submit proof of completion of works under the terms and provisions of Permits Nos. R-269 and 15237; and,

WHEREAS, The said proofs of completion of works are now required to be made on or before May 18, 1926 and July 29, 1926, respectively, and cover the full period of time allowed by statute for the making of such proof; and,

WHEREAS, The said permits involve the construction of a dam and reservoir impounding more than 200,000 acre-feet of water; and

WHEREAS, Chapter 135, Session Laws of Idaho, 1923, provides that in cases involving the construction of a reservoir with a capacity in excess of 200,000 acre-feet, and wherein a satisfactory showing is made to the Commissioner of Reclamation that it will not be feasible nor practicable to complete such irrigation works within the period allowed by statute and by the permit for such completion and offering of proof of completion, and that there has actually been expended in excess of $100,000.00 on the construction of works comtemplated by such permit; that the said time for completion of such works for diversion and storage of water may, in the discretion of the Commissioner of Reclamation, be extended an additional period of time of five years; and,

WHEREAS, In the case of Permits R-269 and 15237, such satisfactory showing has been made:

NOW, THEREFORE, The time set for proofs of completion of works under Permits R-269 and 15237 is hereby extended to May 18, 1931 and July 29, 1931, respectively, and such extension of time for completion of works under these permits shall automatically extend the time for completion of one-fifth of the work required to be done in one-half of the time, and for making proof of application of water to beneficial use.

WITNESS, My hand and the seal of the Department of Reclamation, this the 10th day of July, 1926.

W. G. SWENDSEN
Commissioner of Reclamation

(SEAL)

PERMIT NO. R-269
CERTIFICATE OF COMPLETION OF RESERVOIR
AND RIGHT TO STORE WATER

t 1,800,000 Acre Feet

Priority 3/30/21

This is to certify that the U.S. of America, acting through E.B. Darlington, Superintendent, u of Reclamation, of Burley, County of Cassia, and State of Idaho, the holder of Permit No. R-269, d upon Application No. 21513, bearing date of priority as of March 30, 1921, authorizing the con- tion of a reservoir and the right to store the waters of Snake River, a tributary of Columbia River, y of Power, State of Idaho, for Domestic, irrigation & power purposes, has fully complied with the sions of the laws of the State of Idaho relating to the proof of completion of the works as set out escribed in said Permit; that said works are adequate for the storage of 1,800,000 acre feet of annually; that the location of the outlet of said reservoir is in the SW¼SE¼, Section 30, Township Range 31 E.B.M.; that a right to store the said waters has been perfected in accordance with the of Idaho and is hereby confirmed by the Commissioner of Reclamation and entered of record in Volume Permits, at page 269, records of the Department of Reclamation on the 12th day of July, 1932, that ight hereby confirmed dates from March 30, 1921; and that the amount of water to which said right is, is certificate, entitled, to store annually shall not exceed 1,800,000 acre feet.

Witness the seal and signature of the Commissioner of Reclamation, affixed at Boise, Idaho, this day of July, A.D., 1932

R. W. FARIS
Commissioner of Reclamation

LICENSE ISSUED 7-9-42 #800,000 acre ft. per annum #4118

of Completion of works made May 16, 1931

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 24

Notice of Publication – Notice of Proof of Application of Water To Beneficial Use
(Permit No. R-269) (Mar. 16, 1936)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Form 10

NOTICE FOR PUBLICATION

NOTICE OF PROOF OF APPLICATION OF WATER TO BENEFICIAL USE

Notice is hereby given that at 10 a. m. on the 22nd day of April, 19 36, at ~~Boise~~ Burley, County of ~~Ada~~ Cassia, State of Idaho, before ~~the State Commissioner of Reclamation of the~~ S. H. Kunau, Notary Public State of Idaho, proof will be submitted of the application to beneficial use of 1,800,000 acre-feet ~~xxxxx~~ per ~~xxxx~~ annum of the waters of Snake River in accordance with the terms and conditions of Permit No. R-269 heretofore issued by the ~~State Engineer~~ Commissioner of Reclamation of the State of Idaho.

The name and postoffice address of the person or corporation holding said permit are the United States of America, acting through its agent B. E. Stoutemyer, District Counsel, Bureau of Reclamation, address Room 603 Post Office Building, Portland, Oregon

The use to which said water has been applied is for storage in American Falls Reservoir and thereafter for use for irrigation and domestic purposes.

The amount applied to beneficial use is one million eight hundred thousand (1,800,000) acre-feet per year.

The place where said water is used (if for irrigation, give full and accurate description of the lands irrigated) under an irrigation system covering more than 25,000 acres, namely the American Falls Reservoir, and upon the lands irrigated from the said above named irrigation system, including the lands under the canals of the various companies and districts holding contracts with the United States for water from American Falls Reservoir, which includes the major part of the irrigated lands of the Snake River Valley.

The name of the canal or ditch or other works by which said water is conducted to such place of use is the American Falls Reservoir and the canals of the various projects having rights therein.

The right to take water from such works is based upon Permit No. R-269

The source of supply from which such water is diverted is Snake River

The date of the priority which said user is prepared to establish is March 30, 1921

R. W. FARIS
Commissioner of ~~Engineer~~ Reclamation.

R-269

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Burley, Idaho,
March 16, 1936.

Mr. R. W. Faris,
State Commissioner of Reclamation,
Boise, Idaho.

Dear Sir: Attention - Paul L. Henry.

In compliance with your letter of March 13, we have amended the notices of publication of final proof in connection with Permits R-269 and 15134, pertaining to the American Falls Reservoir and Milner-Gooding Canal, respectively.

The name of S. H. Kunau, Notary Public, of Burley, Idaho, has been inserted as the person before whom the proof shall be made, and the notices are returned herewith.

Very truly yours,

Dana Templin

Encls.

Dana Templin,
Acting Superintendent.

RECEIVED
MAR 17 1936
Department of Reclamation

R-269

Form No. 11-A

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE, IDAHO

Date March 17, 1936

Re: Permit No. R-269

EDITOR, TWIN FALLS DAILY TIMES
Twin Falls,
Idaho

DEAR SIR:

Enclosed you will find notice for publication once a week for four consecutive weeks prior to April 22, 1936, the date set for proof, the expense of the publication to be paid by the applicant, Mr. Dana Templin, Acting Project Superintendent, United States Bureau of Reclamation, Burley, Idaho to whom you should furnish proof of publication on or prior to the date set for proof.

Please acknowledge receipt of this notice and furnish this office with a copy of the first publication.

Very truly yours,

R. W. FARIS

Commissioner of Reclamation

R-269

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 25

Letter, State Commissioner of Reclamation R.W. Faris
to Acting Minidoka Project Superintendent Dana Templin
(Mar. 13, 1936)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

March 13, 1936

Re: Permits Nos. R-269 & 15134

MR. DANA TEMPLIN, Acting Project Superintendent,
U. S. Bureau of Reclamation,
Burley, Idaho

Dear Sir:

Under date of March 11th we received, in completed form, notice for publication for each of the above permits in connection with final proof and also your authorizations for the publication of each notice.

The statute reads that a notice in connection with final proof under any permit shall be published in the county wherein the major portion of the land to be irrigated is located. The lands benfitted by the waters diverted from Snake River under the terms of Permit No. 15134 are largely located in Lincoln County. Therefore, you were correct in making out your authorization, to designate the Lincoln County Journal of Shoshone. Permit No. R-269, under which a certificate of completion of works has been issued for 1,800,000 acre feet of water per annum from Snake River, probably benefits more land in Twin Falls County than in any other county in the Snake River Valley, so the notice under this permit can be properly published in the Twin Falls Daily Times, as you have indicated.

In both cases you have specified that proof will be offered before the State Commissioner of Reclamation. The statutes provide that proof may be offered before any official who is empowered to administer oaths and while in special cases, when hearing testimony, the commissioner is empowered to administer oaths, it is not the practice of this department for him to take any proofs. Proof of completion of works was offered before Anna J. Larsen, Notary Public, in your Burley office. However, we find, on checking the records of the Secretary of State, that she is no longer a Notary Public, so kindly designate some other Notary for the purpose of taking these proofs. The Notary Public, of course, has no jurisdiction except to take the acknowledgements of the various parties executing the depositions and submit them to this department for its consideration and determination.

Will you kindly make this correction on both copies of each notice, which we are herewith returning, and return them to this department at the earliest possible date so that there will be ample time for the publications.

Very truly yours,

R. W. FARIS
Commissioner of Reclamation

By _____
Chief Clerk & Office Engr.

PLH/rg
Encl. cc - Mr. B. E. Stoutemyer, District Counsel, Portland, Oregon

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 26

Letter, State Commissioner of Reclamation R.W. Faris to
USBR District Counsel B.E. Stoutemyer
(Apr. 7, 1936)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

(COPY)

STATE OF IDAHO
Department of Reclamation
R. W. Faris, Commissioner
Boise

April 7, 1936

Re: Permits Nos. R-269 & 15134

MR. S. H. STOUTENYER, District Counsel
603 Post Office Building,
Portland, Oregon

Dear Sir:

I have your letter of April 6th with reference to final proof under each of the above permits.

Upon examining the records, I find that what you say with respect to the 5 year's extension of time, granted under these permits, is true and while beneficial use proof was originally due, under each of them, on April 23, 1936, you are, unquestionably, entitled to an additional 5 years for submitting final proofs. Perhaps the bureau still intends to reclaim some of the desert lands lying under the Milner-Gooding Canal and if that is true, no doubt, the full time will be needed.

At the time when the order, extending completion of works proof 5 years, was issued the department failed to make the proper notation on what we term the first of the month book, which is a record of all permits upon which notices of proofs due are to be served. As you know, it is customary to mail these notices about 60 days prior to the date when proof is due, in order to allow sufficient time for publication and while I was aware of the extension of time, granted under these permits, I was under the impression that beneficial use of the water had been made and that, consequently, the government was in a position to go ahead with the proofs.

In view of what you say, it, no doubt, would be wise to withdraw the notices, which are being published at the present time, and permit these proofs to go until some later date. With this in mind, I have made the proper notation on the records so that notice will be given the bureau, of the proofs, in 1941.

Very truly yours,

R. W. FARIS
Commissioner of Reclamation

By (Sgd) Paul L. Henry
Chief Clerk & Office Engr.

PLH/rg

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 27

Letter, USBR District Counsel B.E. Stoutemyer to
State Commissioner of Reclamation R.W. Faris
(Apr. 6, 1936)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
603 Post Office Building
Portland, Oregon
April 6,1936

RECEIVED
APR 7 1936
Department of Reclamation

Mr. R. W. Faris,
Commissioner of Reclamation,
Boise, Idaho.

Dear Mr. Faris:

With reference to our proposed proof of beneficial use under Permits R-209 and 15134, I find that the original permits provided:

> "The whole of said work to be completed on or before April 23, 1926
> Beneficial use of water appropriated in accordance herewith to be made on or before April 23, 1936"

but under the provisions of chapter 135, Idaho Session Laws of 1923 an application for extension of time was made, in the manner authorized and provided for in the statute, and such extension was duly granted by order made by the commissioner of reclamation for the state of Idaho under date of April 7, 1923. Under this extension of time, the time within which proof of completion of works must be made under the permits above referred to was extended to April 23, 1931, that is was extended for an additional period of five years from the original date of April 23, 1926.

The statute, chap. 135 I.S.L. 1923, under which this extension was granted, now appears as a part of section 41-204, Idaho Code, and among other things provides:

> "Provided further, that the time for completion of works under any permit involving the construction of a reservoir of more than 200,000 acre feet capacity or for the appropriation of water to be impounded in such reservoir of more than 200,000 acre feet capacity, may upon application to the state commissioner of reclamation supported by a showing that additional time is needed on account of the time required for organizing,

15134

financing and constructing works of such large size, be extended by the state commissioner of reclamation for an additional period of five years, but not to exceed ten years in all from the date of permit, and that extension of time for completion of works under this proviso shall automatically extend the time for completion of the twenty per cent required to be done in half the time, and for making proof of application of water to beneficial use: provided, that no such extension shall be granted unless the applicant for such extension shall show that there has been actually expended toward the construction of said reservoir (including expenditures for the purchase of rights of way and property in connection therewith) at least $100,000."

I believe that in sending out the notice that proof of beneficial use will be due on April 23, 1936, your office probably referred to the date appearing in the original permits and did not take into consideration the extension under the statute quoted above and which, as I understand, provides for an automatic extension of the date for making proof of beneficial use to April 23, 1941.

It is probable that on some of the projects interested in these permits more satisfactory proof can be made a few years later than at the present time and, if I am correct in my understanding that we have until 1941 to make this proof of beneficial use, I am disposed to withdraw our advertisement and to use the additional time which the law allows for this purpose, making the proof a few years later but well within the time preceding April 23, 1941. Please advise if you see any practical objection to this.

Very truly yours,

B. E. Stoutemyer

B. E. Stoutemyer
District Counsel

by air mail

15134

AF004995

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 28

Notice of Publication – Notice of Proof Application of Water to Beneficial Use

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

No tice of Publication

NOTICE OF PROOF APPLICATION OF WATER
TO BENEFICIAL USE.

Notice is hereby given that at eleven A. M. on the 22nd day of April, 1941, at Burley, County of Cassia, State of Idaho, Before _____, a notary public, p roof will be submitted of the application to beneficial use of 1,800,000 acre-feet per annum, total rate of diversion for storage and direct use being in excess of 9,000 cubic feet per second of the waters of Snake River, in accordance with the terms and conditions of Permits No. 15134 and R-269 heretofore issued by the Commissioner of Reclamation of the State of Idaho.

The name and postoffice address of the person or corporation holding said permit are United States of America, address superintendent, U. S. Reclamation Bureau, Burley, Idaho.

The use to which said water has been applied is irrigation and domestic use.

The amount applied to beneficial use is 1,800,000 acre-feet per annum, at a total rate of diversion for storage and for direct use in excess of 9,000 second-feet.

The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies:

Aberdeen-Springfield Canal Company
American Falls Reservoir District
American Falls Reservoir District No. 2
Blackfoot Irrigation Company
Burgess Canal & Irrigation Company
Butte & Market Lake Canal Company
Corbett Slough Ditch Company
Dilts Irrigation Company
Enterprise Canal Company
Enterprise Irrigation District
Harrison Canal & Irrigation Company
Hillsdale Irrigation District
Idaho Irrigation District
Lenroot Canal Company
Milner Low Lift Irrigation District
Minidoka Irrigation District
New Sweden Irrigation District
Peoples Canal & Irrigation Company
Poplar Irrigation District

R-269

Pr[redacted]essive Irrigation District
Reid Canal Company
Rudy Irrigation Canal Company
Charles D. Smith(individual)
Snake River Valley Irrigation District
Trego Ditch Company
Utah-Idaho Sugar Company

The lands in the Upper Snake River Valley are supplied by means of exchange of water.

The names of the canals or ditches or other works by which said water is conducted to such place of use are:

Aberdeen
Martin
North Side Project
Twin Falls Canal Co.
Woodville
Gooding
Blackfoot
Burgess
Butte & Market Lake
Corbett
Dilts
Enterprise Canal Co.
Enterpriste District
Harrison
Idaho
Lenroot
Milner Low Lift
Minidoka
New Sweden
Peoples
Poplar Irrigation Dist.
Reid
Rudy
Smith
Snake River Valley
Trego
Utah-Idaho Sugar Company

The right to take water from such works is based upon Permits No. R-269 and 15134.

The source of supply from which such water is diverted is Snake River.

The date of priority which said user is prepared to establish is March 30, 1921.

E. V. BERG.
Commissioner of Reclamation.

R-269

Notice for Publication

NOTICE OF PROOF APPLICATION OF WATER
TO BENEFICIAL USE

Notice is hereby given that at eleven A. M. on the 22nd day of April, 1941, at Burley, County of Cassia, State of Idaho, before S. H. KUNAU, a notary public, proof will be submitted of the application to beneficial use of 1,800,000 acre-feet per annum, total rate of diversion for storage and direct use being in excess of 9,000 cubic feet per second of the waters of Snake River, in accordance with the terms and conditions of Permits No. 15134 and R-269 heretofore issued by the Commissioner of Reclamation of the State of Idaho.

The name and postoffice address of the person or corporation holding said permit are United States of America, address, Superintendent, U. S. Reclamation Bureau, Burley, Idaho.

The use to which said water has been applied is irrigation and domestic use.

The amount applied to beneficial use is 1,800,000 acre-feet per annum, at a total rate of diversion for storage and for direct use in excess of 9,000 second-feet.

The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies:

Aberdeen-Springfield Canal Company
American Falls Reservoir District
American Falls Reservoir District No. 2
Blackfoot Irrigation Company
Burgess Canal & Irrigation Company
Butte & Market Lake Canal Company
Corbett Slough Ditch Company
Dilts Irrigation Company
Enterprise Canal Company
Enterprise Irrigation District
Harrison Canal & Irrigation Company
Hillsdale Irrigation District
Idaho Irrigation District
Lenroot Canal Company
Milner Low Lift Irrigation District
Minidoka Irrigation District
New Sweden Irrigation District
Peoples Canal & Irrigation Company
Poplar Irrigation District

R-269

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 29

Affidavit of Publication, Idaho Evening Times
(Twin Falls, Idaho) (Apr. 10, 1941)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

NOTICE FOR PUBLICATION

NOTICE OF PROOF APPLICATION OF WATER TO BENEFICIAL USE

Notice is hereby given that at eleven A. M. on the 22nd day of April, 1941, at Burley, County of Cassia, State of Idaho, before S. H. Kunau, a notary public, proof will be submitted of the application to beneficial use of 1,800,000 acre-feet per annum, total rate of diversion for storage and direct use being in excess of 9,000 cubic feet per second of the waters of Snake River, in accordance with the terms and conditions of Permits No. 15134 and R-269 heretofore issued by the Commissioner of Reclamation of the State of Idaho.

The name and postoffice address of the person or corporation holding said permit are United States of America, address Superintendent U. S. Reclamation Bureau, Burley, Idaho.

The use to which said water has been applied is irrigation and domestic use.

The amount applied to beneficial use is 1,800,000 acre-feet per annum, at a total rate of diversion for storage and for direct use in excess of 9,000 second-feet.

The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies:

Aberdeen-Springfield Canal Company
American Falls Reservoir District
American Falls Reservoir District No. 2
Blackfoot Irrigation Company
Burgess Canal & Irrigation Company
Butte & Market Lake Canal Company
Corbett Slough Ditch Company
Dilts Irrigation Company
Enterprise Canal Company
Enterprise Irrigation District
Harrison Canal & Irrigation Company
Hillsdale Irrigation District
Idaho Irrigation District
Lenroot Canal Company
Milner Low Lift Irrigation District
Minidoka Irrigation District
New Sweden Irrigation District
Peoples Canal & Irrigation Company
Poplar Irrigation District
Progressive Irrigation District
Reid Canal Company
Rudy Irrigation Canal Company
Charles D. Smith (individual)
Snake River Valley Irrigation District
Trego Ditch Company
Utah-Idaho Sugar Company

The lands in the Upper Snake River Valley are supplied by means of exchange of water.

The names of the canals or ditches or other works by which said water is conducted to such place of use are:

Aberdeen
Martin
North Side Project
Twin Falls Canal Co.
Woodville
Gooding
Blackfoot
Burgess
Butte & Market Lake
Corbett
Dilts
Enterprise Canal Co.
Enterprise District
Harrison
Idaho
Lenroot
Milner Low Lift
Minidoka
New Sweden
Peoples
Poplar Irr. Dist.
Progressive Irr. Dist.
Reid
Rudy
Smith
Snake River Valley
Trego
Utah-Idaho Sugar Company

R-269

The right to take water from such works is based upon Permits No. R-269 and 15134.

The source of supply from which such water is diverted is Snake River.

The date of priority which said user is prepared to establish is March 30, 1921.

E. V. BERG
Commissioner of Reclamation

Pub. Times: March 20, 27, April 3, 10, 1941

AFFIDAVIT OF PUBLICATION

RECEIVED APR 22 1941 Department of Reclamation

No. 639

STATE OF IDAHO, } ss.
COUNTY OF TWIN FALLS, }

I, Lisa Maloney, being first duly sworn upon oath depose and say that I am Principal Clerk of the IDAHO EVENING TIMES, published daily, except Sunday, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice or advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for 4 consecutive Sundays, commencing with the issue dated March 20, 1941, and ending with the issue dated April 10, 1941

And I do further certify that said newspaper has been published as a daily paper, except Sunday, under said name and in said city and county, continuously and uninterruptedly during a period of more than twelve consecutive months prior to the first publication of said notice or advertisement.

And I further certify that pursuant to Section 58-108 I. C. A., 1932, as added thereto by Chapter 154, Idaho 1933 Session Laws, Thursday of each week has been designated as the day on which legal notices required by law or by order of any court of competent jurisdiction within the State of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said paper, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

Lisa Maloney

Subscribed and sworn to before me this 10th day of April, 1941

Josephine Graves

Notary Public in and for the County of Twin Falls, State of Idaho, residing at Twin Falls, Idaho

R-269

Form No. 11-A

STATE OF IDAHO

DEPARTMENT OF RECLAMATION

BOISE, IDAHO

Re: 15134 & R-269

March 17, 1941

Date . . . . . .

Idaho Evening Times
Twin Falls, Idaho

Dear Sir:

Enclosed you will find notice for publication once a week for four consecutive weeks prior to April 28, 1941, the date set for proof, the expense of the publication to be paid by the applicant,

S. R. Mahan, Project Supt., Reclamation Bureau, Burley, Idaho

to whom you should furnish proof of publication on or prior to the date set for proof.

Please acknowledge receipt of this notice and furnish this office with a copy of the first publication.

Very truly yours,

E. V. BERG.

Commissioner of Reclamation

R-269

Form No. 11

NOTICE TO ACCOMPANY THIS LETTER MUST BE MADE IN DUPLICATE

(Date) March 14, 1941

(P. O.) Burley, Idaho

TO THE COMMISSIONER OF RECLAMATION:

Boise, Idaho.

Dear Sir:

You are hereby authorized to have the attached notice published at my expense in the Idaho Evening Times of Twin Falls, Idaho, in Twin Falls County, the North Side News of Jerome, Idaho in Jerome County, and the Gooding Leader of Gooding, Idaho in Gooding County, in which three counties the major portion of the lands irrigated under these permits are situated.

S. J. O'Marean
Project Superintendent, Reclamation Bureau, Burley, Idaho, as agent for the United States, the holder of the permits.

(In case of canals or other works designed to divert and carry more than 50 cubic feet of water per second, the following certificate must be signed by a well-known and competent engineer)

I hereby certify that the facts set forth in the attached notice are true.

Lynn Crandall
Engineer.

R-269

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 30

License and Certificate of Water Right,
Water License R-269 (Jul. 9, 1942)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

01-2064

4118 1118

State of Idaho

License and Certificate of Water Right

Water License No. R-269 (01-2064

Water District No. _____

Amount 1,800,000 acre feet per annum

Priority March 30, 1921

THIS IS TO CERTIFY that UNITED STATES OF AMERICA, Acting through B. E. STOUTEMYER, District Counsel U.S. Reclamation Service of Portland, Oregon, made application for a permit to appropriate the public waters of the State of Idaho, dated March 30, 1921, 19 ; that Permit No. R-269 was issued under said application; that Certificate of Completion of works, with a carrying capacity of 1,800,000 acre feet per annum was issued thereunder on July 12, 1932, 19 , showing that said works were completed on the 16th day of May, 19 31 ; and that on the 22nd day of April, 19 41,

UNITED STATES OF AMERICA

of Portland, State of Oregon, made proof to the satisfaction of the Commissioner of Reclamation of Idaho, of the right to use the waters of Snake River, a tributary of Columbia River, for the purpose of domestic and irrigation purposes, under Use Permit No. R-269 of the Commissioner of Reclamation and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the Commissioner of Reclamation of Idaho and entered of record in Volume 7 of Licenses, at page 4118, on the 9th day of July, 19 42;

The right hereby confirmed dates from March 30, 1921, 19 ;

The Point of Diversion is located in the SW¼ SE¼, Sec. 30, Tp. 7 S, R. 31 E, B. M. Power

That the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed 1,800,000 cubic feet per second acre feet per annum, of which amount 1,700,000 acre feet represents the rated cubical contents of the reservoir and 100,000 acre feet is the maximum annual bank storage.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated

The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies: Aberdeen-Springfield Canal Co., American Falls Reservoir Dist., American Falls Reservoir Dist. No. 2, Blackfoot Irrig. Co., Burgess Canal & Irrig. Co., Butte & Market Lake Canal Co., Corbett Slough Ditch Co., Dilts Irrig. Co., Enterprise Canal Co., Enterprise Irrig. Dist., Harrison Canal & Irrig. Co., Hillsdale Irrig. Dist., Idaho Irrig. Dist., Lenroot Canal Co., Milner Low Lift Irrig. Dist., Minidoka Irrig., Dist., New Sweden Irrig. Dist., Peoples Canal & Irrig. Co., Poplar Irrig. Dist., Progressive Irrig. Dist., Reid Canal Co., Rudy Irrig. Canal Co., Chas. D. Smith (individual), Snake River Valley Irrig. Dist., Trego Ditch Co., Utah-Idaho Sugar Co., the lands in the upper Snake River Valley are supplied by means of exchange water. The names of the canals or ditches or other works by which said water is conducted to such place of use are: Aberdeen, Martin, North Side Project, Twin Falls Canal Co., Woodville, Gooding, Blackfoot, Burgess, Butte & Market Lake, Corbett, Dilts, Enterprise Canal Co., Enterprise Dist., Harrison, Idaho, Lenroot, Milner Low Lift, Minidoka, New Sweden, Peoples, Poplar Irrig. Dist., Progressive Irrig. Dist., Reid, Rudy, Smith, Snake River Valley, Trego, Utah-Idaho Sugar Co.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

IN WITNESS the seal and signature of the Commissioner of Reclamation, affixed at Boise, Idaho, this 9th day of July, 19 42

E.V.BERG.

Commissioner of Reclamation

(SEAL)

MICROFILMED

01-2064

State of Idaho

License and Certificate of Water Right

Water License No. R-269

Water District No.

Amount 1,~~800,000~~ acre feet per annum

Priority March 30, 1921

THIS IS TO CERTIFY that UNITED STATES OF AMERICA, Acting through B. E. STOUTEMYER, District Counsel U.S. Reclamation Service of Portland, Oregon, made application for a permit to appropriate the public waters of the State of Idaho, dated March 30, 1921, 19 ; that Permit No. R-269 was issued under said application; that Certificate of Completion of works, with a carrying capacity of 1,~~800,000~~ acre feet per annum ~~second~~ feet, was issued thereunder on July 12, 1932, 19 , showing that said works were completed on the 16th day of May, 19 31 ; and that on the 22nd day of April, 19 41,

UNITED STATES OF AMERICA

of Portland, State of Oregon, made proof to the satisfaction of the Commissioner of Reclamation of Idaho, of the right to use the waters of Snake River, a tributary of Columbia River, for the purpose of domestic and irrigation purposes, under Use Permit No. R-269 of the Commissioner of Reclamation and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the Commissioner of Reclamation of Idaho and entered of record in Volume 7 of Licenses, at page 4118, on the 9th day of July, 19 42;

The right hereby confirmed dates from March 30, 1921, 19 ;

The Point of Diversion is located in the SW¼ ¼ SE¼ ¼, Sec. 30, Tp. 7 S, R. 31 E, B.M. Power

That the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed 1,~~800,000~~ ~~cubic feet per second.~~ acre feet per annum, of which amount 1,700,000 acre feet represents the rated cubical contents of the reservoir and 100,000 acre feet is the maximum annual bank storage.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies: Aberdeen-Springfield Canal Co., American Falls Reservoir Dist., American Falls Reservoir Dist. No. 2, Blackfoot Irrig. Co., Burgess Canal & Irrig. Co., Butte & Market Lake Canal Co., Corbett Slough Ditch Co., Dilts Irrig. Co., Enterprise Canal Co., Enterprise Irrig. Dist., Harrison Canal & Irrig. Co., Hillsdale Irrig. Dist., Idaho Irrig. Dist., Lenroot Canal Co., Milner Low Lift Irrig. Dist., Minidoka Irrig. Dist., New Sweden Irrig. Dist., Peoples Canal & Irrig. Co., Poplar Irrig. Dist., Progressive Irrig. Dist., Reid Canal Co., Rudy Irrig. Canal Co., Chas. D. Smith (individual), Snake River Valley Irrig. Dist., Trego Ditch Co., Utah-Idaho Sugar Co., the lands in the upper Snake River Valley are supplied by means of exchange water. The names of the canals or ditches or other works by which said water is conducted to such place of use are: Aberdeen, Martin, North Side Project, Twin Falls Canal Co., Woodville, Gooding, Blackfoot, Burgess, Butte & Market Lake, Corbett, Dilts, Enterprise Canal Co., Enterprise Dist., Harrison, Idaho, Lenroot, Milner Low Lift, Minidoka, New Sweden, Peoples, Poplar Irrig. Dist., Progressive Irrig. Dist., Reid, Rudy, Smith, Snake River Valley, Trego, Utah-Idaho Sugar Co.					

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the Commissioner of Reclamation, affixed at Boise, Idaho, this ~~9th~~ day of July, 19 42

E.V.BERG.

Commissioner of Reclamation

(SEAL)

01-2064

#4118

STATE OF IDAHO
LICENSE AND CERTIFICATE OF WATER RIGHT

Water License No. R-269 Priority March 30, 1921 Amount 1,800,000 acre ft. per annum.

THIS IS TO CERTIFY that UNITED STATES OF AMERICA, acting through B. E. Stoutemyer, District Counsel, U. S. Reclamation Service of Portland, Oregon, made application for a permit to appropriate the public waters of the State of Idaho, dated March 30, 1921; that Permit No. R-269 was issued under said application; that Certificate of Completion of works, with a carrying capacity of 1,800,000 acre feet per annum was issued thereunder on July 12, 1932, showing that said works were completed on the 16th day of May, 1931; and that on the 22nd day of April, 1941,

UNITED STATES OF AMERICA

of Portland, State of Oregon, made proof to the satisfaction of the Commissioner of Reclamation of Idaho, of a right to the use of the waters of Snake River, a tributary of Columbia River, stored in American Falls Reservoir, for the purpose of Domestic and irrigation purposes, under Use Permit No. R-269 of the Commissioner of Reclamation, and that said right to the use of said waters has been perfected in accordance with the laws of Idaho, and is hereby confirmed by the Commissioner of Reclamation of Idaho and entered of record in Volume 7 of Licenses, at page 4118, on the 9th day of July, 1942;

The right hereby confirmed dates from March 30, 1921;

The Point of Diversion is located in the SW¼ SE¼, Sec. 30, Tp. 7 S., R. 31 E.B.M., Power County.

That the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually needed and beneficially used for said purposes, and shall not exceed 1,800,000 acre feet per annum, of which amount 1,700,000 acre feet represents the rated cubical contents of the reservoir and 100,000 acre feet is the maximum annual bank storage.

Description and location of use:

The place where said water is used is on the lands in the following irrigation districts and on the lands of the projects of the following irrigation companies: Aberdeen-Springfield Canal Co., American Falls Reservoir Dist., American Falls Reservoir Dist. No. 2, Blackfoot Irrig. Co., Burgess Canal & Irrig. Co., Butte & Market Lake Canal Co., Corbett Slough Ditch Co., Dilts Irrig. Co., Enterprise Canal Co., Enterprise Irrig. Dist., Harrison Canal & Irrig. Co., Hillsdale Irrig. Dist., Idaho Irrig. Dist., Lenroot Canal Co., Milner Low Lift Irrig. Dist., Minidoka Irrig. Dist., New Sweden Irrig. Dist., Peoples Canal & Irrig. Co., Poplar Irrig. Dist., Progressive Irrig. Dist., Reid Canal Co., Rudy Irrig. Canal Co., Chas D. Smith (individual), Snake River Valley Irrig. Dist., Trego Ditch Co., Utah-Idaho Sugar Co., the lands in the upper Snake River Valley are supplied by means of exchange water. The names of the canals or ditches or other works by which said water is conducted to such place of use are: Aberdeen, Martin, North Side Project, Twin Falls Canal Co., Woodville, Gooding, Blackfoot, Burgess, Butte & Market Lake, Corbett, Dilts, Enterprise Canal Co., Enterprise Dist., Harrison, Idaho, Lenroot, Milner Low Lift, Minidoka, New Sweden, Peoples, Poplar Irrig. Dist., Progressive Irrig. Dist., Reid, Rudy, Smith, Snake River Valley, Trego, Utah-Idaho Sugar Co.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, as provided by the laws of Idaho.

WITNESS the seal and signature of the Commissioner of Reclamation, affixed at Boise, Idaho, this 9th day of July, 1942.

E. V. BERG
Commissioner of Reclamation

(Seal)

MICROFILMED

STATE OF IDAHO

LICENSE AND CERTIFICATE OF

STATE OF IDAHO

LICENSE AND CERTIFICATE OF

WATER RIGHT

Water License No. R-269

To UNITED STATES OF AMERICA

Source of Supply - Snake River.

Power County

Amount 1,800,000 acre Feet

Point of Diversion SW¼SE¼, Sec. 30, Twp. 7 S. Rge. 31 E.B.M.

Place of Use - Lands Under American Falls Reservoir

Purpose - Domestic and irrigation

Date of Priority -March 30, 1921

Recorded - July 9, 1942

in Book 7 of Licenses, Page 4118

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 31

Letter, USBR District Counsel B.E. Stoutemyer to
USBR Chief Engineer (Aug. 24, 1934)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

B-16

BUREAU OF RECLAMATION
RECEIVED
AUG 27 1934
BURLEY, IDAHO

603 Postoffice Building
Portland, Oregon
August 24,1934

From District Counsel

To Chief Engineer

Subject: Storage rights at American Falls reservoir. Minidoka project.

1. Replying to your letter of August 21, would say that our decreed right under the Woodville decree for filling American Falls reservoir is 1,700,000 acre-feet and 8,000 second-feet for direct diversion. Before the state comaissioner of reclamation we proved up on 1,800,000 acre-feet for storage in American Falls reservoir and 1700 second-feet for direct diversion and use for the Gooding canal. I presume that the balance of our 8,000 second-feet for direct diversion, over the 1700 second-feet, has lapsed through failure to construct works of any greater capacity than 1700 second-feet and the same is probably true of the balance of our American Falls reservoir filing over the 1,800,000 acre-feet.

2. Until there is another supplemental decree, the state officers administering Snake river will no doubt be governed by the amount set out in the Woodville decree and would decline to close down any headgates of any later reservoirs after the American Falls reservoir has received its decreed amount of 1,700,000 acre-feet. But I think there is no doubt that we could later on secure a supplemental decree for whatever additional amount we may have actually stored and used from the American Falls reservoir although the priority of the additional amount would not relate back to 1921 but would be a date of priority as of the date of the actual storage and use of such additional amount. Under a supplemental decree we could probably secure a right relating back to 1921 for the additional 100,000 acre-feet included in our certificate of completion of works but in my opinion could not secure more than the 1,800,000 acre-feet under our priority of 1921 but if we have used more than 1,800,000 acre-feet and can show that we have actually stored 2,000,000 or 2,100,000 acre-feet and have used the same, we could secure a supplemental decree for the additional amount under date of priority of the date when such additional

water was actually stored and used. For instance, if by refilling we actually stored 2,000,000 acre-feet in 1927, we should be entitled to an additional amount under supplemental decree to the extent of 200,000 acre-feet with priority of 1927.

3. In order to be on the safe side, I think you should figure that the American Falls reservoir has a right to store in any one season a total of more than the capacity of the reservoir through successive replenishment of depleted storage whether or not the reservoir actually fills at any one time, but that the right to the excess over the 1,800,000 acre-feet may be under date of priority of 1927 or some later date instead of under priority of 1921. In other words, our right in connection with the American Falls reservoir for the water in excess of the 1,800,000 acre-feet for which we made our proof and secured our certificate of completion of works would be a constitutional right based on actual diversion and use of the water, therefore not relating back to the date of the original filing but taking priority of the date when such additional water was first diverted and used.

- - -

B E Stoutemyer

cc - Burley
Idaho Falls

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 32

Excerpts, "Report On Upper Snake River Storage Investigations
Volume I – Snake River Above Idaho Falls"
by E.B. Debler & J.R. Riter
(United States Dep't of the Interior, Bureau of Reclamation)
(June 1935)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REPORT ON

UPPER SNAKE RIVER STORAGE

INVESTIGATIONS

VOLUME I

SNAKE RIVER ABOVE IDAHO FALLS

By

E. B. DEBLER - HYDRAULIC ENGINEER

J. R. RITER - ASSOCIATE ENGINEER

JUNE 1935.

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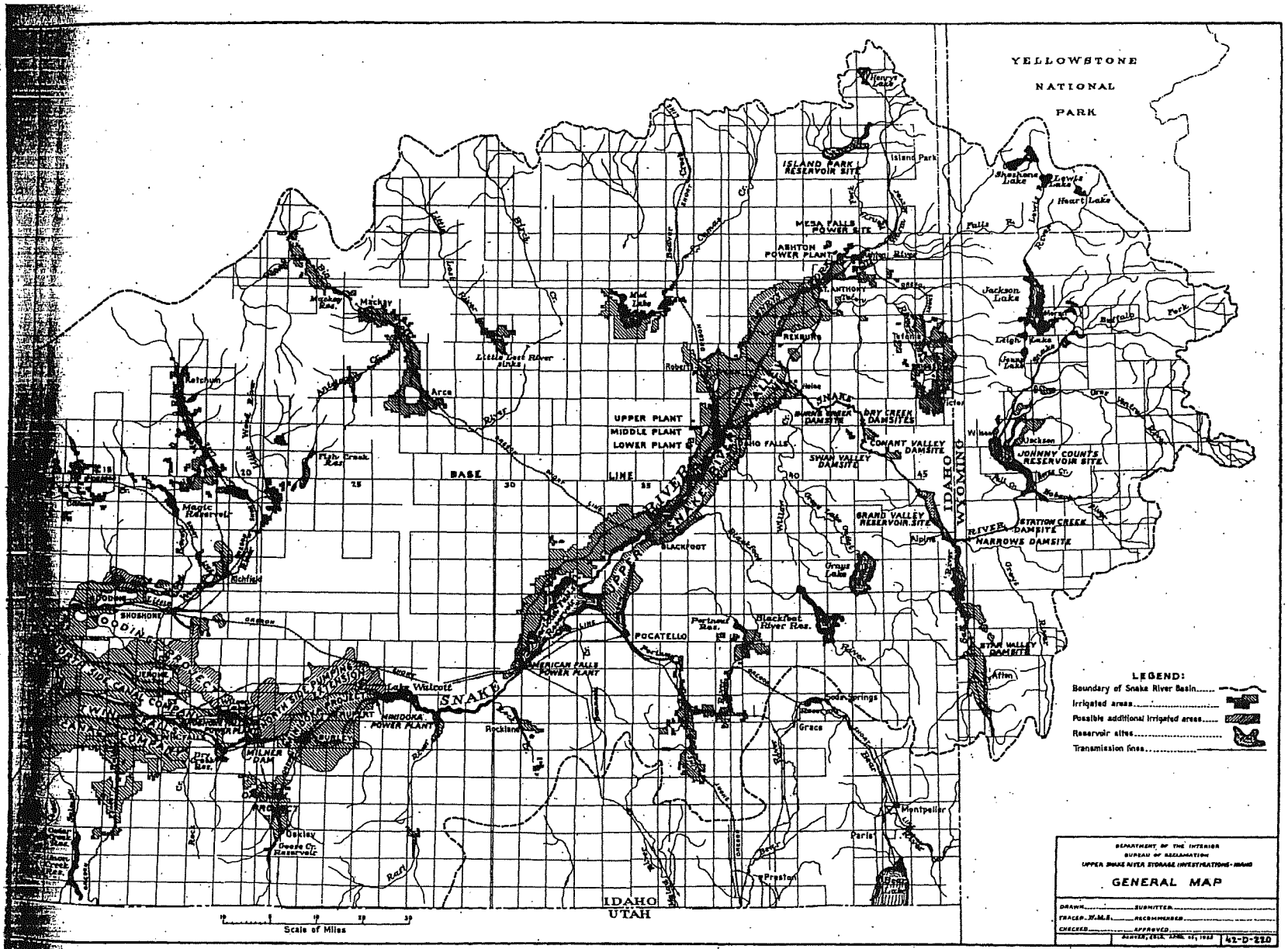
JRP006753


YELLOWSTONE
NATIONAL
PARK
ISLAND PARK RESERVOIR SITE
MESA FALLS POWER SITE
ASHTON POWER PLANT
ST. ANTHONY
REXBURG
Island Park
Henrys Lake
Shoshone Lake
Lewis Lake
Heart Lake
Jackson Lake
Leigh Lake
Jenny Lake
Jackson
JOHNNY COUNTS RESERVOIR SITE
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Mud Lake
Arco
Ketchum
Fish Creek Res.
Magic Reservoir
Richfield
Roberts
Heise
UPPER PLANT
MIDDLE PLANT
LOWER PLANT
IDAHO FALLS
BURNS CREEK DAMSITE
DRY CREEK DAMSITES
CONANT VALLEY DAMSITE
SWAN VALLEY DAMSITE
GRAND VALLEY RESERVOIR SITE
STATION CREEK DAMSITE
NARROWS DAMSITE
Alpine
Grays Lake
BLACKFOOT
POCATELLO
Portneuf Res.
Blackfoot River Res.
STAR VALLEY DAMSITE
Afton
Victor
Wilson
IDAHO
WYOMING
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MINIDOKA POWER PLANT
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Rockland
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Soda Springs
Montpelier
Paris
Preston
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MILNER DAM
BURLEY
RUPERT
JEROME
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DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER SNAKE RIVER STORAGE INVESTIGATIONS - IDAHO
GENERAL MAP
DRAWN
SUBMITTED
TRACED W.M.S.
RECOMMENDED
CHECKED
APPROVED
42-D-220

JRP006754

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JRP006757

SURPLUS WATER ON SNAKE RIVER

While the census data on irrigated areas in Bingham, ...neville, Jefferson and Madison Counties for 1919 and 1929 would ...icate that there have been no marked increases in the irrigated ...above American Falls in recent years, it is well-known that ...e has been an increase in the amount of water used, especial- ...during the later part of the irrigation season. This increase ...e use of water has been brought about principally by:

(a) Changes in crops and irrigation methods which require a larger amount of late season water.

(b) Completion of American Falls reservoir which has made additional water available for late season use and engendered a further late season demand.

One effect of the above described increase in the use of ...er, has been a postponement of the date when storage accumulations ...begin in the fall. A comparison of discharge records at Ameri- ...falls for the past 15 years shows that late summer discharges ...some of the earlier years were such that storage accumulations ...have begun in American Falls during the latter part of Sept- ...er, while in more recent years the storing season normally be- ...about November 1. In part this is due to lessened stream ...harges but in even larger degree it is due to an extension in ...irrigation season and increased late season requirements.

JRP006812

The surplus water on Snake River for new reservoirs is determined from a consideration of inflow to American Falls reservoir and the prior demand thereon for irrigation, power, domestic use and storage capacity.

While a material expansion of the irrigated area above American Falls reservoir is neither proposed nor anticipated, much development is still hoped for below American Falls.

For this study it is assumed that inflow to American Falls reservoir during the storing season, beginning November 1 and continuing to May or June following will not change further except as water may be withheld for new upstream reservoirs without injury to the American Falls reservoir.

Inflow to American Falls reservoir available for storing in new reservoirs is subject to the following superior requirements:

(a) Power use by Idaho Power Co. at American Falls Dam.

(b) Power use by Minidoka project at Minidoka Dam.

(c) Irrigation requirements for canals diverting from Lake Walcott and Milner Lake.

(d) Winter requirements for stock and domestic use.

(e) Waters required to fill American Falls reservoir and Lake Walcott.

These demands on the flow of Snake River at and below American Falls and their relations to each other are discussed in the following pages.

JRP006813

August 24, 1934 from District Counsel B. E. Stoutemyer to

hief Engineer:

"Replying to your letter of August 21, would say that our decreed right under the Woodville decree for filling American Falls reservoir is 1,700,000 acre-feet and 8,000 second-feet for direct diversion. Before the state commissioner of reclamation we proved up on 1,800,000 acre-feet for storage in American Falls reservoir and 1700 second-feet for direct diversion and use for the Gooding canal. I presume that the balance of our 8,000 second-feet for direct diversion, over the 1700 second-feet, has lapsed through failure to construct works of any greater capacity than 1700 second-feet and the same is probably true of the balance of our American Falls reservoir filing over the 1,800,000 acre-feet."

erican Falls reservoir might use 1,800,000 by filling early season, using 100,000 acre feet and then fill again later season.

The natural flow right and the storage right for the n Falls reservoir referred to in Stoutemyer's letter ve the same priority, namely, March 13, 1921. The Good- ect interests claim that the natural flow right is to the American Falls storage right, while other owners cin Falls storage claim the reverse.

As a compromise, the Secretary of the Interior during dered that in alternate years beginning with 1932 the flow rights should be filled ahead of the American Falls right.

JRP006827

...s to prevent ice damage at the Minidoka Dam. Storage drafts on ... reservoir during the recent years of low runoff have averaged about ...3 acre feet annually. With the contract of October 1, 1934, with Idaho Power Company in effect and with the irrigation development ...merican Falls as outlined herein, it is contemplated that the ...e draft on Lake Walcott will be 95,000 acre feet annually. This ...ty of water will need be by-passed at American Falls after Novem... of each year to replenish the storage in Lake Walcott before the ...ning of the irrigation season.

...ge Replenishment in American Falls

It is not known exactly how American Falls Reservoir will be ...ated in the future in view of the large numbers of irrigators, who ...ve storage rights therein and the variation in their require... arising from variation in natural flow rights, soils and crops. ...assumed, however, for the purpose of this study that with the ...oka Project, Gooding Project, and the North Side Twin Falls Proj... fully developed, and with the storage reserved for the North Side ...ing extension fully used, either by development of that area or ...se, that American Falls Reservoir will be emptied in October ... year during critical periods of water supply.

With this assumption, it will be necessary to replenish the ...,000 acre feet of storage capacity in this reservoir annually be... ...y surplus will be available for additional upstream reservoirs.

SUMMARY OF DEMANDS PRIOR TO NEW RESERVOIRS

The prior demands on the natural flow of the Snake River at ...n Falls are summarized below.

to prevent ice damage at the Minidoka Dam. Storage drafts on reservoir during the recent years of low runoff have averaged about 0 acre feet annually. With the contract of October 1, 1934, with daho Power Company in effect and with the irrigation development American Falls as outlined herein, it is contemplated that the draft on Lake Walcott will be 95,000 acre feet annually. This ity of water will need be by-passed at American Falls after Novem- of each year to replenish the storage in Lake Walcott before the ing of the irrigation season.

Replenishment in American Falls

It is not known exactly how American Falls Reservoir will be in the future in view of the large numbers of irrigators, who ve storage rights therein and the variation in their require- arising from variation in natural flow rights, soils and crops. assumed, however, for the purpose of this study that with the Project, Gooding Project, and the North Side Twin Falls Proj- lly developed, and with the storage reserved for the North Side extension fully used, either by development of that area or se, that American Falls Reservoir will be emptied in October year during critical periods of water supply.

With this assumption, it will be necessary to replenish the 00 acre feet of storage capacity in this reservoir annually be- surplus will be available for additional upstream reservoirs.

SUMMARY OF DEMANDS PRIOR TO NEW RESERVOIRS

The prior demands on the natural flow of the Snake River at Falls are summarized below.

JRP006843

Winter Releases from American Falls Reservoir
(November to March, incl.)

flow at Milner Dam for Shoshone Plant	95,000 A.F.
ersions at Milner Dam for domestic use	195,000 "
lenishment of Lake Walcott Storage	95,000 "
net inflow Neeley to Milner	90,000 "
Net Winter Releases	295,000 "

Irrigation diversions for all canals except the Gooding Proj- are shown in the table on page 163.

Irrigation diversions for the Gooding Project Canal are 000 acre feet in years when sufficient water is available to more fill American Falls Reservoir.

Storage replenishment for American Falls Reservoir is one ion seven hundred thousand (1,700,000) acre feet.

INFLOW TO AMERICAN FALLS RESERVOIR

In this study the inflow is estimated from the records at y with suitable corrections for past storage changes and losses erican Falls Reservoir.

rvoir Loss

Reservoir losses are determined from concurrent records of , outflow and storage contents made during the summer months of 1928, 1932, 1933 and 1934. The inflow to the reservoir is made the following items:

(a) Snake River at Clough Station.
(b) Portneuf River at Pocatello.
(c) Spring inflow and irrigation waste into Snake River and Portneuf River below the gaging stations.

tflow, storage content and items (a) and (b) of the inflow are ed continuously. About one-half of the flow under item (c) of nflow can be readily measured. The unmeasurable inflow is

JRP006844

puted by means of the "Newell Formula" developed from measurements

in 1923 and 1924, as follows:

Unmeasured inflow equals 840 second feet plus
1/3 measured inflow.

ing the summers of 1927 and 1928 complete records of inflow were made

losses calculated. For the summers of 1932, 1933 and 1934 inflow is

mated from miscellaneous measurements of inflow made about once a

th.

The measured losses (or gains) of the reservoir have three

ponents as follows:

(a) Evaporation losses.
(b) Accumulation and discharge of bank storage.
(c) Seepage losses.

Evaporation Data

Station	Elevation Feet	Period of Record for Evaporation Data	Average Annual Temp.	Average Annual Prec. Inches	Estimate average annual evaporation from free water surfaces, Inches
ake (1)	4,784	1921-23	40	-	39.30
r (1)	4,200	1927-30	48	-	39.91
rock (1)	3,220	1916-30	49	-	40.09
en (1)	4,400	1912-19	44	-	50.86
(1)	3,893	1919-27	49	-	37.89
lat (1)	2,510	1916-25	48	-	38.59
n Falls Res.(2)	4,355	-	46	10.5	-

ta abstracted from page 710 of 1934 Transactions of American Society of Civil Engineers.
n of Aberdeen, Blackfoot, Burley, Fort Hall, Pocatello and pringfield.

From the above data, net evaporation from American Falls Res-

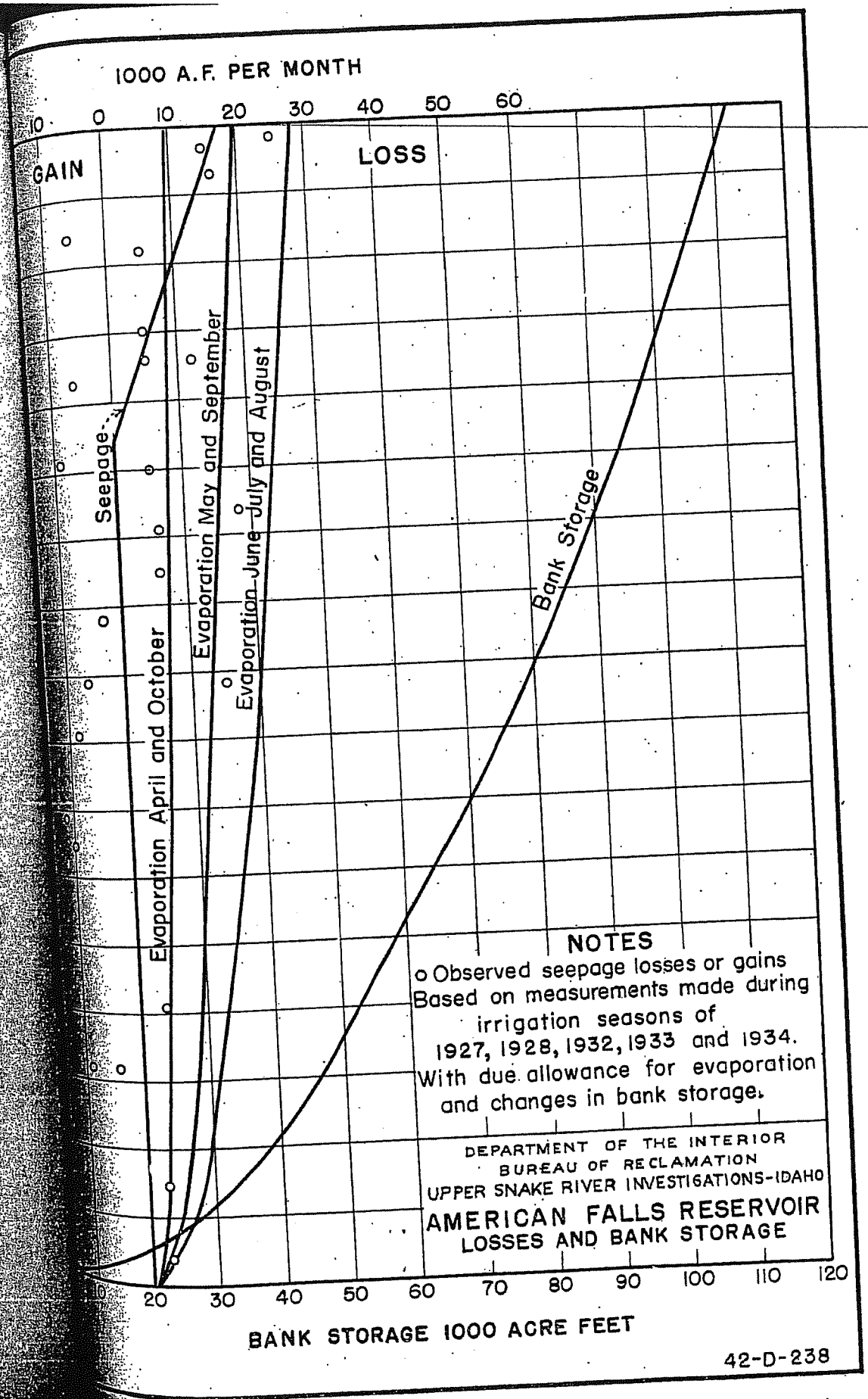
is estimated at 30 inches annually, distributed as follows:

November to March, incl.	None
April and October	2 inches per month
May and September	4 " " "
June, July and August	6 " " "
Annual	30 inches.

These rates of loss in relation to storage content are shown

ing No. 42-D-238.

JRP006845


1000 A.F. PER MONTH
10 0 10 20 30 40 50 60
GAIN
LOSS
Seepage
Evaporation April and October
Evaporation May and September
Evaporation June July and August
Bank Storage
NOTES
o Observed seepage losses or gains
Based on measurements made during
irrigation seasons of
1927, 1928, 1932, 1933 and 1934.
With due allowance for evaporation
and changes in bank storage.
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER SNAKE RIVER INVESTIGATIONS-IDAHO
AMERICAN FALLS RESERVOIR
LOSSES AND BANK STORAGE
10 20 30 40 50 60 70 80 90 100 110 120
BANK STORAGE 1000 ACRE FEET
42-D-238

JRP006846

The amount of bank storage in terms of submerged area, estimated from observed net inflow in excess of evaporation losses during drawdown period in the past three years when reservoir stages were low enough so that seepage losses were probably negligible, is presented in the following table:

Units - 1000 acre feet
(except where otherwise noted)

Period of Drawdown	Exposed Reservoir Area Units 1000 acres: At beginning of drawdown period	At end of drawdown period	Net Change during period	Observed Net gain to reservoir during drawdown period	Estimated Evaporation Losses during drawdown period	Bank Storage: Total return	Average rate feet depth per acre
				(1)	(2)	(3)	(4)
July 1-Sept.30:	48.9	20.7	28.2	7.3	47.1	54.4	1.9
July 1-Sept.30:	50.1	21.0	29.1	20.9	49.3	70.2	2.4
Apr. 1-Sept.30:	46.4	7.1	39.3	18.2	60.4	78.6	2.0

Based on measurements of inflow, outflow and change in storage described on page 174.
Based on evaporation curves on drawing 42-D-238.
Sum of (1) and (2).
Total bank storage return divided by change in exposed reservoir area.

Bank storage at any reservoir level with an adopted capacity feet over the inundated area is shown by the curve of "bank on drawing 42-D-238. The adopted rate represents a yield of for a ground depth of 15 feet, figures believed to be in keeping the average porosity and depth to the permanent water table in the covered by the reservoir.

JRP006847

Rates of seepage loss as graphically shown on drawing 42-D-
are determined by correcting the observed losses and gains in 1927,
, 1932, 1933 and 1934 (described on pages 174 and 175) for evapor-
n losses and bank storage as defined by the curves on the same
ing. While supporting points scatter badly, due to all errors
tream measurement, estimated evaporation loss, and bank storage
r thrown into the seepage losses, it is believed that the results
easonably reliable. The average of all points for a reservoir
nt of loss than 1,200,000 acre feet, is zero. For reservoir
nts of 1,200,000 acre feet or greater the points define a seep-
oss varying from 0 with a content of 1,250,000 acre feet to about
00 acre feet per month with a content of 1,700,000 acre feet.

Drawing 42-D-238 has been used both in the analysis of
operations to determine inflow to American Falls Reservoir dur-
he storing season, and in operating plans under future condi-

ble Inflow

On the basis of the above discussion, the estimated stor-
nflow to American Falls Reservoir during the past 17 years is
rth in the following table:

JRP006848

Storable Inflow to American Falls Reservoir

Units - 1000 Acre Feet

Date when storing season assumed to end (1)	Data from Past Records: Flow at Neeley in Storing Season	Storage increase at American Falls	Reservoir losses while filling (2) (7)	Total inflow to Amer. Falls	Operation with Estimated Future Conditions: Reservoir losses (3) (7)	Winter releases (4)	Irrigation use in storing season (5)	Storable inflow to American Falls Res. (6)
July 10	5679	0	0	5679	235	295	1610	3539
June 4	3150	0	0	3150	172	295	849	1834
June 28	3731	0	0	3731	183	295	1342	1911
July 1	5114	0	0	5114	216	295	1225	3378
July 4	4508	0	0	4508	209	295	1196	2808
July 8	4203	0	0	4203	216	295	1443	2249
May 22	2383	0	0	2383	110	295	638	1340
July 15	4871	0	0	4871	224	295	1710	2642
May 20	2816	16	13	2845	153	295	771	1626
July 19	3622	1685	189	5496	232	295	1649	3320
July 10	5598	115	136	5849	250	295	1515	3789
July 1	2986	704	120	3810	191	295	1300	2024
May 19	2110	408	38	2556	118	295	642	1501
April 20	1149	713	46	1908	106	295	111	1396
July 1	1870	1253	129	3252	160	295	1173	1624
June 24	1930	1090	105	3125	153	295	1274	1403
April 7	578	850	49	1477	89	295	37	1056
	3312	402	48	3762	178	295	1087	2202

Storage season assumed to begin on November 1; date when storage season ends, determined as follows:
1918 - from consideration of daily stream flow records.
1919 - 1929, incl., date when watermaster began to regulate diversions.
1930-1934, incl., date of maximum storage content in American Falls Reservoir.
Estimated from records of past reservoir levels and drawing 42-D-238. Reservoir operation started in 1926 in a minor way.
Estimated from preliminary reservoir operation study to determine levels during storing season (reservoir assumed empty at beginning of storing season) and drawing 42-D-238.
From page 174.
From table on page 163, with addition of 50,000 acre feet per year to allow for Gooding Project diversions of natural flow in years when there is sufficient water to fill American Falls Reservoir.
Includes 45,000 acre feet estimated to accrue, under terms of contract dated Oct. 1, 1934, with Idaho Power Co. to reservoirs to be constructed on Henrys Fork.
Includes accumulated bank storage during filling season.

JRP006849

SURPLUS WATER ON SOUTH FORK

It is contemplated that about 135,000 acre feet of storcapacity will be provided at the Island Park Reservoir site on rys Fork and in the Grassy Lakes and Lake of the Woods resersites at the head of Fall River for the benefit of lands on ys Fork and its tributaries. Studies are also being made to rmine the possibility of creating an additional 40,000 acre of storage capacity at reservoirs on the Teton River or its utaries for use of these lands. As these reservoirs will have nt prior to any storage reservoir constructed on the South of Snake River, the surplus water available for a reservoir South Fork or for an enlargement of the American Falls rvoir would be further reduced by the amount of water required ll such Honrys Fork reservoirs. For the purpose of this study combined capacity of such reservoirs is taken as 175,000 acre

Surplus water available for storage in South Fork rerirs is represented by American Falls storable inflow as deed in the preceding table less 1,700,000 acre feet for Amerialls reservoir and 175,000 acre feet for Honrys Fork reser-

As many of the assumptions underlying the study may never lly realized the computed surplus, for the purpose of this has been reduced by 10% to allow for such contingencies.

JRP006850

On this basis the surplus waters available for storage in reservoir on the South Fork of Snake River or in an enlargement of American Falls Reservoir are set forth in the following table:

Units 1000 Acre Feet

Year	Estimated storable water at American Falls	Water stored in American Falls, Island Park and Reservoirs on Fall River and Teton R.	Computed Surplus for South Fork Reservoir	Adopted Surplus Water
1918	3539	1875	1664	1498
1919	1834	* 1834	0	0
1920	1911	1875	36	32
1921	3378	1875	1503	1353
1922	2808	1875	933	840
1923	2249	1875	374	337
1924	1340	* 1340	0	0
1925	2642	1875	767	690
1926	1626	* 1626	0	0
1927	3320	1875	1445	1300
1928	3789	1875	1914	1723
1929	2024	1875	149	134
1930	1501	*1501	0	0
1931	1396	* 1396	0	0
1932	1624	* 1624	0	0
1933	1403	* 1403	0	0
1934	1056	* 1056	0	0
Mean	2202	1685	517	465

* Years of insufficient water to fill American Falls and reservoirs on Henrys Fork and tributaries.

JRP006851

FLOOD CONTROL

Storage for flood control

Flood control has been urged for the region from Heise, Idaho, where Snake River emerges from the canyon and flows along a high portion of its alluvial cone on a sand and gravel bed within low banks, to a point near Roberts where the river enters a well defined channel with comparatively steep and rocky banks.

In this region there are about 100 square miles of irrigated agricultural lands, lying chiefly south of Snake River. The river grade along the present channel between Heise and Roberts is about eight feet per mile, while the grade in a direct line is about 11 feet per mile. There is always some danger during high water of Snake River deserting its present unstable channel and adopting a more direct route, along some of the present canals or a former river channel, to a point near Idaho Falls.

The annual freshets of 30,000 second feet or more cause overflow at numerous places, and considerable cutting is experienced along the banks, with eroded materials deposited on the overflowed lands with material damage. The principal damages that have occurred in recent years are as follows:

(a) Due to shifting of the stream channels considerable expense and annoyance has been experienced by the various canal companies in maintaining their headings on the river.

JRP006897

(b) To protect its bridges and trestles near Kruger and Lorenzo, Idaho, the railroad company has been obliged to place and maintain rock dikes and riprap at bridge approaches.

(c) The State of Idaho has placed willow mats and levees at various places in the river channel to influence the direction of the current and protect the banks.

It has been estimated that about $500,000 to $750,000 have been spent by these interests during the past 25 years in their efforts to protect the banks and control the stream.

An extensive channel change would necessitate the construction of many new bridges and the reconstruction of some of the existing bridges. Irrigation canals would need to make new connections to secure water, attended by legal complications because of the changed points of diversion. The aggregate costs attending a general channel change would undoubtedly run into millions of dollars.

The floods of Snake River occur in the months of May to July and the total flow in these months has in recent years varied from 1,300,000 acre feet to 4,500,000 acre feet. In 1894, such flow is estimated as 6,000,000 acre feet. To control these volumes with a reservoir capacity of 1,400,000 acre feet, the largest capacity obtainable at any one site necessitates the selection, based on available records, of some discharge above which

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all inflow will be withheld until a favorable time occurs for its release. For a strictly flood control reservoir, the problem is then relatively simple.

A study of discharge records at Lyons and Heise, indicates that storage would be required, to control high floods of the past 30 years, as follows:

Year	Recorded maximum daily discharge - Sec. Feet	Storage required to control flow at Heise to - 30,000 S. F.	35,000 S. F.	40,000 S. F.
1904*	51,500	318,000 A.F.	112,000 A.F.	49,000 A.F.
1909*	44,000	605,000 A.F.	264,000 A.F.	27,000 A.F.
1918	51,600	558,000 A.F.	361,000 A.F.	190,000 A.F.
1927	(1)36,600	(2) 30,000 A.F.	(2)25,000 A.F.	(2)20,000 A.F.

*Based on record at Lyons.

(1) The peak discharge at Heise during the flood of May, 1927, is estimated at 60,000 second feet. This flood was due to the breaking of the temporary dam on the Gros Ventre River formed by a landslide in 1925. While some damage was caused by this flood, the messages of alarm sent out at the time of failure of the natural dam caused a feeling of anxiety which is now repeated on the occasions of normal freshets.

(2) Estimated by considering rise at Heise on May 18 and 19, due to Gros Ventre flood.

It is known that higher floods than those of the past 30 years have been experienced on Snake River. In 1894, the Eagle Rock gaging station near Idaho Falls, Idaho, was washed out on June 3 with a recorded gage height of 12.0 feet on May 31, June 1 and June 2. By application of the rating curve in use

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for that period, the discharge on these days was estimated by Lynn Crandall, District Engineer, U. S. Geological Survey at Idaho Falls, as 70,900 second feet. The flow during the crest of the flood was probably about 75,000 second feet.

While considerable damage undoubtedly occurred throughout the delta region as a result of this flood no data are available regarding the extent of such flood damage except for an area at the bend of the river about six miles northeast of Roberts, where about 10,000 acres of land were flooded and the inhabitants driven from their homes. These lands were then undeveloped but have since been cleared and are now being farmed. This flood also inundated a portion of the city of Idaho Falls.

Insufficient stream flow records are available in 1894 to define accurately the proportion of this flood that originated above Heise. From a consideration of discharge records of Snake River at Heise and Shelley and of the intervening diversions during the flood seasons of recent years, it is estimated that in 1894, the flow at Heise was equal to 85% of the flow at Idaho Falls.

Application of this ratio to the 1894 flow at Idaho Falls obtained from the gage heights and rating table published in U.S.G.S. Bulletin #131 and the discharge estimates made by Mr. Crandall for the crest of the flood indicates that storage would be required to control this flood as follows:

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Controlled Discharge at Heise	Storage required to control flow
30,000 sec. ft.	1,000,000 ac. ft.
40,000 " "	700,000 " "

The average cost of active reservoir capacity, with a high dam at the Johnny Counts site is slightly more than $9.00 per acre foot. At this price, the cost of storage for purely flood control would be as follows:

	Control to - 30,000 S.F.	Control to - 40,000 S.F.
Floods of last 30 years	$ 5,500,000	$1,700,000
1894 flood	9,000,000	6,300,000

Dual operation for irrigation and flood control.

The high peak of the Snake River flood of 1927 was due entirely to the breaching of the Gros Ventre slide by that stream, a situation unlikely to be repeated in any ordinary span of years. All other floods of the past 40 years were due to the spring snow melt. Estimates of total flood runoff can be prepared from observations of precipitation at a number of properly located stations supplemented by snow surveys in late winter and early spring with an average error not exceeding 10% but individual years will depart from the estimate by as much as 25%. The distribution of this water cannot be foretold with any degree of accuracy as it is dependent on temperature conditions prevailing immediately prior to the flood and during the early part thereof.

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If a large holdover is on hand, the operator must decide far in advance of the flood whether or not storage should be released to provide flood control capacity. If conditions then change and anticipated runoff fails to materialize, the reservoir remains unfilled and the situation may result in subsequent irrigation shortages. The other chance is an inflow far in excess of anticipated flows with the reservoir filling before the flood crest arrives and resulting lack of flood control. In actual operation, then, flood control efficiency with an irrigation reservoir would vary from nothing in some years to 100% in others. Benefits would accrue, however, in that flood crests would be reduced to some extent in practically every year and the periods of excessive runoff would be shortened in every year. Occasionally irrigation would, no doubt, suffer but such injury can be held to minor amounts by proper skill in operation favoring irrigation rather than power.

Measures for the prevention of river channel changes would have to be continued but their upkeep would be lightened a great deal through the reduction in periods of high flow.

It is not practicable to evaluate the flood control values of such a reservoir without far more investigation than has been made nor will it be possible to make a precise evaluation in any event. Too much depends on the assumed skill of the reservoir operator.

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EXHIBIT 33

Excerpts, "Water Supply For Palisades Reservoir Project, Idaho
Project Planning Report 1-5.17-1
A General Plan For The Elimination Of Winter Diversions,
Coordinated Operation Of Reservoirs,
And Development of New Land"
(U.S. Dep't of the Interior, Bureau Of Reclamation)
(Oct. 1946)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES DEPARTMENT OF THE INTERIOR

Julius A. Krug, Secretary

BUREAU OF RECLAMATION

Michael W. Straus, Commissioner

R. J. Newell, Regional Director

WATER SUPPLY
FOR
PALISADES RESERVOIR PROJECT
Idaho

PROJECT PLANNING REPORT
1-5.17-1

A
GENERAL PLAN
For The
Elimination Of Winter Diversions,
Coordinated Operation Of Reservoirs,
And Development Of New Land

SNAKE RIVER VALLEY

Region 1 Boise, Idaho October 1946

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UNITED STATES DEPARTMENT OF THE INTERIOR

JULIUS A. KRUG, Secretary

WATER SUPPLY

for

PALISADES RESERVOIR PROJECT

IDAHO

BUREAU OF RECLAMATION

MICHAEL W. STRAUS, Commissioner

Region I

R. J. Newell, Regional Director

Project Planning Report No. 1-5.17-1

Boise, Idaho
October 1946

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REPORT OF THE REGIONAL DIRECTOR

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REPORT OF THE REGIONAL DIRECTOR

and

SUBSTANTIATING REPORT

use of the water supply, the American Falls reserved space would be used to store water for the irrigation of new land in the North Side Pumping Division of the Minidoka Project and in the Michaud Unit of the Fort Hall Project. New land in the Michaud Unit is included in this plan because it is the only large area of good irrigable land from which the deep percolation losses and surface waste will return to American Falls Reservoir where they can be regulated and re-used for irrigation of other lands downstream. The location and approximate extent of these two projects of new lands are shown on the general map following page 1. Detailed investigations of these projects will be needed to determine the exact acreage that can be irrigated in each.

River Operation Studies

30. Elimination of winter diversions from the main stream and operation of Palisades Reservoir will substantially increase the supply of stored water available for irrigation use in the Snake River Valley. A series of operation studies of the river system under these changed conditions was made to determine whether the total available water supply will be adequate to meet the irrigation requirements with and without development of new land. The operation studies covered the 24-year period from 1919 to 1942. This includes the lowest run-off during the period of record, which extends back to 1896. Starting with the Henrys Fork system of reservoirs and irrigation projects, the operation studies were conducted progressively downstream by applying diversion requirements to the water supplies available at selected control points. The diversion requirements for existing projects were estimated by adjusting recorded monthly diversions to reflect the irrigation practices and cropping programs anticipated in the future. River losses and gains under future operating conditions were estimated by means of a correlation of recorded losses and gains with recorded diversions during the period of study. These derived irrigation requirements, river losses, and river gains were applied to the recorded stream flows to determine surplus flows available for storage and deficiencies that would have been met by releases of stored water. In order to have conserved the maximum amount of stored water for use in dry years, it was assumed that irrigation storage would have been released first from the farthest downstream reservoir that could serve the irrigated lands. Since it was assumed that water users in the Henrys Fork Valley would not utilize space in the Palisades Reservoir, no storage water would have been released from that reservoir for their use. Sufficient water would have been released from Palisades Reservoir every winter to maintain a firm output of 15,000 kilowatts at the Palisades power plant. It would have been necessary to release water from Jackson Lake Reservoir during winter in critical dry years in order to maintain this

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34. Operation studies of the river system under Plan B showed that the average delivery of stored water during the 24-year period would have been increased by 288,000 acre-feet annually as a result of eliminating winter diversions and placing Palisades Reservoir in operation. The corresponding reduction in shortages would have averaged 360,000 acre-feet annually. The deliveries of stored water and irrigation shortages are based on a demand of 433,000 acre-feet annually for new lands in the Minidoka and Fort Hall projects. This is in addition to the full irrigation requirement for the existing projects. The usable return flow from irrigation of new lands in the Michaud Unit of the Fort Hall Project was taken into account in the operation studies.

Conclusions

35. The effectiveness of the authorized Palisades Reservoir in making dependable the water supply for the highly productive irrigated lands of the Snake River Valley is contingent upon eliminating wasteful use of water in the area. The most serious loss of storable irrigation water is occasioned by diversion of water during the non-irrigation season for domestic and stock-watering uses.

36. Domestic and livestock water can and should be provided by wells in all parts of the area except the South Side Twin Falls Project, where the quality of the ground-water supply is entirely unsatisfactory for these purposes. The feasibility of wells elsewhere in the area already has been demonstrated by a large majority of residents. The remaining farmsteads not equipped with wells should be provided with them through the efforts of individual farm owners or groups of owners.

37. In the South Side Twin Falls Project a system for the delivery of domestic water through underground pipes to every farm and town should be built by the Bureau of Reclamation. If financed with interest-free funds under the Reclamation Laws, the cost of the system could be repaid by domestic water users during a 40-year repayment period. Domestic water rates sufficient to cover costs would compare favorably with those of representative municipalities throughout the Nation.

38. Construction of Palisades Reservoir and elimination of wasteful winter diversions would provide an adequate water supply for existing irrigation projects without use by these projects of any of the reserved space in American Falls Reservoir. The existing projects can obtain an adequate supply of supplemental storage water from Palisades Reservoir by capturing surplus flows there in years of average and above-average run-off and retaining such stored

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UNITED STATES DEPARTMENT OF THE INTERIOR

JULIUS A. KRUG, Secretary

BUREAU OF RECLAMATION
MICHAEL W. STRAUS, Commissioner

SUBSTANTIATING REPORT

WATER SUPPLY

for

PALISADES RESERVOIR PROJECT

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SUBSTANTIATING REPORT

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considerable quantity of dairy products is marketed in California. Specialized crops, such as the Idaho Russet potato, are distributed throughout the Nation.

Population

Settlement in the project area began in 1810 with the establishment of a trading post on the Henrys Fork River. Thousands of migrants passed through the area in later years enroute to the north Pacific Coast, but few settled in eastern Idaho. Not until the vigorous expansion of irrigation in the late 1880's did the project area obtain significant numbers of inhabitants. Population grew rapidly during the ensuing 30 years and reached its present proportions in 1920. In 1940, the project area had about 205,000 residents. Of this number about 69,000 live in towns and cities of 1,000 or more population, and the remainder (66 percent) live on farms or in towns of less than 1,000. Practically all of the population is concentrated in irrigated portions of the Snake River Plain. The principal towns, all in Idaho and all trading centers surrounded by irrigated lands, are Pocatello, with a 1940 population of 18,133; Idaho Falls, with 15,024; Twin Falls, with 11,851; and Burley, with 5,329.

THE PROBLEM

With the completion of American Falls Reservoir in 1927, the hazard of irrigation water shortage was believed to have been removed. Subsequent to 1928, however, during an unprecedented series of dry years, American Falls Reservoir failed to fill. It immediately became apparent that the 433,000 acre-feet of space in the reservoir reserved for development of new land would be needed by existing irrigated land. Accordingly, the reserved space was leased to water users on existing projects, and this arrangement has continued ever since. Even use of this reserved reservoir space failed to provide the water needed. As a result, serious crop losses were experienced. In 1931, the losses were approximately $3,000,000; in 1934 they were about $7,000,000, and in 1935, $1,000,000.

Such serious losses revealed the urgent need for additional storage in order to hold over the excess waters of wet years for use during years of low precipitation and for the elimination of wasteful water-use practices which are prevalent in the area.

The most injurious of these practices is the diversion of water during winter. In much of the project area, the irrigation canals are not shut off at the end of the irrigation season. Instead they flow at partial capacity during the entire winter in order to provide

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water supplies for domestic and livestock use. With the exception of the South Side Twin Falls district, however, a minority of the residents in the areas where canals are operated during the winter depends on canal water for domestic and livestock needs. A majority has constructed farm wells from which they secure a more satisfactory water supply. As noted earlier, ground-water conditions in the South Side Twin Falls district are so unfavorable that even the two largest towns there are dependent for domestic water on the irrigation canals. Every winter over half a million acre-feet are diverted into canal systems and thus, for the most part, lost to storage. It is obvious that if this water could be retained in a hold-over reservoir, the crop losses which result from water shortage during the irrigation seasons could be eliminated entirely or substantially reduced. It follows that construction of a hold-over reservoir such as Palisades cannot be justified unless winter diversions are stopped.

A second practice which loses water for the project area is heavy irrigation of lands underlain by ground water not tributary to the Snake River above Milner Dam. Under much of the project area subterranean channels which by-pass the river carry ground water to the huge reservoir under the Snake River Plain. Water which seeps downward into those channels, therefore, is lost to irrigation use.

INVESTIGATIONS

Previous Studies

In 1932, the Bureau of Reclamation initiated surveys of 27 reservoir sites on the Upper Snake River. In conjunction with these surveys, extensive water supply studies were made. In a report on the studies and surveys dated June 1935, Engineers E. B. Debler and J. R. Riter noted that 13 of the sites were unsuited, geologically, for construction of reservoirs. Many of the remaining sites were found to be unsuitable for hold-over reservoirs of large capacity because of the excessive height of dams required or possible reservoir leakage. It was concluded that the Johnny Counts site near Jackson, Wyoming, and the Palisades site near Irwin, Idaho, were the most favorable of the sites surveyed. The water supply studies summarized in the report indicated the need for water conservation measures in order to obtain the needed benefits from a hold-over reservoir.

A more detailed investigation of the Palisades site was made by the Bureau of Reclamation subsequent to 1935 and a report was issued in 1940. This report presented detailed cost estimates together with

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allocation of costs to irrigation, power, and flood control. Benefits exceeding costs in the ratios of 1.99 to 1.00 for irrigation; 1.16 to 1.00 for power; and 1.15 to 1.00 for flood control were shown. Eleven areas of potential new irrigated lands aggregating 470,000 acres were itemized although it was emphasized that possibilities for the development of these lands were severely limited by lack of fully adequate water supply even for existing irrigated land despite construction of a new storage reservoir. The conclusion of the earlier report that elimination of wasteful water use is prerequisite to realization of reasonable benefits of reservoir construction was strongly reiterated.

The 1940 report was summarized in House Document No. 457, 77th United States Congress, 1st Session. This document formed the basis for authorization of the Palisades Reservoir Project. Construction of the dam, however, was clearly made contingent upon elimination of wasteful water-use practices.

The site of the Palisades Dam, authorized for construction as a result of these previous investigations, is eight miles due west of the Idaho--Wyoming boundary and about 40 miles upstream from Heise, Idaho, where the Snake River emerges onto the Snake River Plain. The dam will be of earth and rock-fill construction with a height sufficient to create a reservoir of 1,400,000 acre-feet. The tentative design of the structure calls for a height of 260 feet, a crest width of 40 feet, and a length of 2,200 feet. A power plant with an installed capacity of 30,000 kilowatts and appropriate transmission lines will be included. Dead storage for power head will occupy the bottom 120,000 acre-feet. The total capacity available for flood control, when needed, will be 900,000 acre-feet. This will be sufficient to eliminate flood damage in the project area except in rare instances of extremely high run-off.

Present Investigation

Construction of Palisades Reservoir, it has been noted, cannot be initiated until wasteful water-use practices have been eliminated or appropriate assurances have been received that they will be stopped. The wasteful practices unfortunately have become well established by many years of usage. The problem cannot be solved equitably without thorough consideration of the many complex and interrelated factors involved. Accordingly, the investigation upon which this report is based was undertaken in 1942 at the request of present water users. The objectives of the investigation were to determine, first, where winter diversions could be economically eliminated, second, the most

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CHAPTER IV

PLANS FOR FUTURE DEVELOPMENT

The drought during the period from 1930 to 1936 caused serious shortages of irrigation water in the Snake River Valley and brought requests for additional storage facilities from practically all water users' organizations. The four storage reservoirs, with a combined capacity of 2,700,000 acre-feet, which were in operation during that period, averted what otherwise would have been a catastrophe. They failed, however, to provide enough late season water to mature all crops. The annual run-off at Heise dropped to an all-time low of 2,800,000 acre-feet in 1934, or only about 60 percent of the long-time average. As noted in Chapter I, the Bureau of Reclamation started an investigation in 1932 of all possible reservoir sites on the river which might be developed to provide a supplemental supply of hold-over storage water to protect the existing projects against a severe water shortage resulting from another drouth period. These investigations have been carried on intermittently since 1932 and have resulted in the construction of the Island Park and Grassy Lake reservoirs in the Henrys Fork watershed and in the selection of the Palisades reservoir site as the most promising storage development on the Snake River. The latter is now proposed for construction as a multiple-purpose project to provide stored water for irrigation use, to control floods, and to generate hydroelectric power. A power plant with an installed capacity of 30,000 kilowatts would be constructed at the dam. Reports have been published by the Bureau of Reclamation and the Corps of Engineers in House Document Nos. 457 and 452, respectively, of the 77th Congress, first session, on the planning of Palisades Reservoir and the allocation of its construction cost to the various features involved. This reservoir, with a live storage capacity of 1,277,000 acre-feet, will be the key unit in any and all plans for additional irrigation development in the Snake River Valley in the near future.

An important item that must be considered in any plan for further irrigation development is the disposal of the 433,000 acre-feet of unsold space in American Falls Reservoir. This 433,000 acre-feet of reserved space was first leased to the existing projects in the area in 1931 when a serious shortage of stored water occurred, and those projects have continued to lease and utilize this space since that time. Because of its

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relatively high firm yield, the use of this space proved a life saver to those projects in 1931, 1934, and 1935; they have drawn a considerable amount of water from it in most years since 1931. In view of the serious water shortages that occurred on practically all of those projects during the drought period from 1930 to 1936--even with full use of the reserved space--it is apparent that the yield of the reserved space should not be used for irrigation of new land until additional hold-over storage space is developed on the river.

The construction of the proposed Palisades Reservoir and the adoption of the water conservation program proposed herein would greatly increase the supply of stored water on the river in all except a series of extremely dry years. Since it is assumed that the Palisades Reservoir will be operated in accordance with state water laws, no water would accrue to its storage right in extremely dry years when the American Falls Reservoir storage right is not filled. Such a condition would have occurred in 1934 and 1935, even though the full water conservation program were in effect with 435,000 acre-feet of water being made available for storage by elimination of winter diversions. In such years the projects owning space in Palisades Reservoir would receive only the hold-over storage they had accumulated in previous years. On the other hand, the water conservation program will increase the yield of American Falls Reservoir, even in the driest years. The Palisades Reservoir, therefore, would be essentially a hold-over reservoir, best suited to providing a supplemental water supply for existing projects in dry years. The unsold space in American Falls Reservoir, with its firm yield, could be used best for supplying water to new land. Many of the existing projects obtain an adequate water supply in normal years from their natural flow rights and from their storage rights in existing reservoirs. If these projects owned space in Palisades Reservoir, they could accumulate hold-over storage in it in years of average or above-average run-off.

It is believed that permanent disposition should be made of the unsold space in American Falls Reservoir before the proposed Palisades Reservoir is constructed in order that the existing projects now leasing that space may be able to make an intelligent appraisal of their storage needs. As an aid to determining the best and most satisfactory disposition of this space, two plans are presented herein. These plans are extreme in that one provides for full use of the reserved space in American Falls Reservoir by the existing projects while the other calls for using the reserved space entirely for development of new land. Operation studies were made of the river system with Palisades Reservoir in operation and the proposed water conservation program in effect to determine the adequacy of the water supply under each of the

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two plans. The results of these studies, which are discussed subsequently, will serve as a guide for selection of a plan most satisfactory to all interests concerned. The two extreme plans, which have been designated as Plan A and Plan B, are described in the following paragraphs.

PLAN A -- WITHOUT DEVELOPMENT OF NEW LAND

Under Plan A the 433,000 acre-feet of unsold space in American Falls Reservoir and all of the live storage space in Palisades Reservoir would be used to provide a supplemental supply of stored water for the existing projects in the Snake River Valley. In order to extend the advantages of the low cost, firm yield of American Falls storage to a greater area than at present, the cost and yield of the reserved space in American Falls Reservoir would be pooled with the cost and yield of the 1,277,000 acre-feet of live storage space in Palisades Reservoir. Although the combined space would be sold as a unit, as if it were all in one reservoir, the amount of stored water accruing to the pool each year would be computed on the basis of the priority of the storage right of each reservoir. With full use of this pooled space and elimination of winter diversions as proposed herein, the existing projects would be assured of receiving some water, in addition to their holdover storage, from the pool every year. For this reason the water users on existing projects have expressed a desire to utilize the unsold American Falls space in this manner.

PLAN B -- WITH DEVELOPMENT OF NEW LAND

Under Plan B the reserved space in American Falls Reservoir would be used for development of new land, and the live storage space in Palisades Reservoir would be used to provide a supplemental supply of stored water for the existing projects on the river. Although the unsold space in American Falls Reservoir was originally reserved for developing new land in future extensions of the Minidoka Project, it is believed that consideration should be given at this time to the possibility of developing at least a part of the new land in areas where the deep percolation losses and surface return flow are tributary to the river above American Falls Dam. In this way some of the unused water could be recaptured and used again by projects having natural flow rights on the Snake River and by those projects having storage rights in American Falls Reservoir.

For the purpose of this study, 223,000 acre-feet of the reserved space in American Falls Reservoir was allotted to the North Side Pumping Division of the Minidoka Project. With a

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Provision was made to deliver stored water to the canals diverting from the Teton River by constructing a feeder canal from the Henrys Fork, known as the Cross Cut Canal. This canal was built by the Bureau of Reclamation and started operating in 1938. It diverts from the Henrys Fork just below the mouth of Fall River and empties into the Teton River a short distance above the highest canal diversion. The Cross Cut Canal can also deliver stored water from the Henrys Fork to about 5,000 acres under the lower canals diverting from Fall River.

Power

The Utah Power and Light Company owns and operates hydroelectric power plants on the main stream at Ashton and at St. Anthony. The Ashton plant was constructed in 1913--15 and has an installed capacity of 5,800 kilowatts with an average operating head of about 46 feet. Head for the plant was developed by constructing a rock-fill dam across the stream with a height of 60 feet. The St. Anthony plant was constructed in 1914--15. It has an installed capacity of only 500 kilowatts and operates under a 15-foot head, which was developed by diverting water from the Henrys Fork and conveying it through a 600-foot concrete flume to the powerhouse on the right bank of the river.

The operation of these two power plants during the irrigation season does not reduce the supply of irrigation water available for use in the Henrys Fork Valley because they are located above the points of diversion to most of the Henrys Fork canals. An agreement was reached with the power company at the time that Island Park Reservoir was constructed whereby the beginning of the storing season at Island Park would be delayed until November 15 each year in order to maintain the power production at the Ashton plant during the fall when the lowest run-off occurs. This operation schedule will cause no reduction in storage in the Island Park Reservoir because in wet years there is always sufficient inflow after November 15 to fill the reservoir and in dry years the water will have to be passed downstream to fill the prior storage right of American Falls Reservoir.

WATER SUPPLY

Available Stream Flow Records

In order to make complete studies of the operation of the existing irrigation projects in the Henrys Fork Basin, it was necessary to have actual records of the following:

(1) Monthly changes in storage content of all existing reservoirs since construction;

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RIVER OPERATION STUDIES

A complete operation study was made of all reservoirs in the Henrys Fork watershed using the basic data previously described and assuming no new land developed in the Henrys Fork Valley, Palisades Reservoir in operation, and the proposed water conservation program in effect on the Snake River. Two results were desired from the operation studies. The first was a determination of the adequacy of the present storage facilities for supplying the derived irrigation requirements to existing Henrys Fork projects in all past years. If the water supply thus developed were not adequate, it was desired to know the amount of the shortages and the years of occurrence. It was also necessary to know the modified flow of the Henrys Fork at the Rexburg gaging station for use as the inflow from the Henrys Fork in the Snake River operation studies.

Criteria

In order to conduct a uniform study which accurately shows the desired results, it was necessary to assume or define certain criteria in order to establish procedures which could be followed in each year of the study. The criteria established for the Henrys Fork study are described in the following paragraphs.

The operation study was begun with all reservoirs full at the end of June 1918. The records of stream flow indicate that there was sufficient run-off in the spring of 1918 to fill all reservoirs, even if all were empty at the end of the irrigation season in 1917. The period of study extended from July 1918 through September 1942, covering the same period as the Snake River studies. The natural flows of the Henrys Fork River, Fall River, and the Teton River, which were obtained from actual records or by estimation as previously described, were used in the study. The derived irrigation storage requirements on Fall River, river losses and gains, and natural flow passed to the Snake River were used in the study.

The reservoirs in the Henrys Fork Valley were operated on a hold-over basis throughout the study. No natural flow except spill and no stored water were allowed to pass the dam at the outlet of Henrys Lake until Island Park Reservoir was empty. Similarly, no natural flow except spill and no stored water were allowed to pass Grassy Lake Dam until Henrys Lake and Island Park reservoirs were empty, except for releases made from Grassy Lake Reservoir for storage requirements of land on Fall River above the Cross Cut Canal. In operating on this hold-over basis, water was sometimes stored in upstream reservoirs when releases were being made from downstream reservoirs. In many years natural

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flow was stored in Henrys Lake Reservoir during the summer while an equivalent amount of stored water was being released from Island Park Reservoir in order to accumulate as much storage as possible in the former for irrigation use in dry years and to reduce the amount of spills from the latter in wet years. In like manner, natural flow belonging to Snake River projects was stored in the Henrys Fork reservoirs while an equivalent amount of stored water was being released from American Falls Reservoir. This stored natural flow was not released to the downstream reservoirs until it was needed to avoid shortages on the projects owning rights in those reservoirs. If an equivalent amount of water spilled from the Henrys Fork reservoirs before any irrigation shortages occurred on the Snake River projects, the natural flow was credited to the upstream reservoir from which it spilled. No injustice to established natural flow rights on either stream would result from operating the reservoirs in this manner, and this method of operation would assure the maximum possible accumulation of hold-over storage for use in dry years.

Water was also stored in the Island Park and Grassy Lake reservoirs adversely against storage rights in American Falls Reservoir. The "water saving contract" between the United States and the Idaho Power Company dated October 1, 1934, specifies that a certain portion of the water saved by the agreements could be stored in any new reservoirs built in the Henrys Fork watershed. The amount which could be thus stored was not specified in the contract, but it was estimated to average about 45,000 acre-feet annually, this being the amount which the company agreed to refrain from drawing during the winter from its storage rights in American Falls Reservoir. Island Park and Grassy Lake reservoirs are therefore entitled to store a minimum of 45,000 acre-feet each year even if American Falls Reservoir does not fill. Any water stored in excess of this amount was credited to the American Falls storage right, up to the amount needed to fill that right. It was not released, however, until it was needed to avoid shortages on projects owning space in American Falls Reservoir.

In conformity with the agreement with the Utah Power and Light Company, none of the natural inflow to the Island Park Reservoir prior to November 15 was considered storable. This is necessary in order to maintain the power output at the company's power plant at Ashton during the fall when the stream flow is at a low stage.

The average operation waste at the lowest canal heading on the Henrys Fork was assumed to be 2,000 acre-feet per month during the irrigation season. This waste of about 33 cubic feet per second was allowed in the reservoir operation study because of

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CHAPTER VI

WATER SUPPLY FOR THE SNAKE RIVER VALLEY

The Snake River rises on the west side of the Continental Divide, in the southern part of Yellowstone National Park, and flows southward through Wyoming for about 130 miles between the Tetpn and Wind River mountain ranges. Upon entering Idaho it bends abruptly and follows a northwesterly course for about 60 miles until it is joined by the Henrys Fork, soon after entering the upper reaches of the Snake River Valley. Below this junction the main stream heads southwest and crosses southern Idaho in a large arc. From its source the river flows through mountainous country and is confined in small basins, canyons, and narrow valleys until it emerges into the great Snake River Plain at Heise, Idaho. In crossing the Plain, the main stream has eroded several spectacular canyons in the lava formations. The lava flows are covered by shallow depths of alluvial and wind-deposited soils throughout the plain.

The Snake River watershed is one of the most prolific watersheds in the West, averaging about 800 acre-feet per square mile annually on the drainage area of about 5,740 square miles above Heise. The prevailing moisture-laden air currents from the Pacific Ocean, in crossing the Continental Divide, cause heavy precipitation in the form of snow on its west slopes during winter. The spring and summer melting of the deep snow beds causes an abundant run-off during the spring and early summer; and the ground-water outflow from the porous, water-bearing formations on the mountain slopes maintains a dependable base stream flow during late summer and fall. Climatic cycles have affected the annual run-off of the Snake River just as much as other western streams, however, and as a result, considerable hold-over storage facilities are needed to make approximately full use of available water.

Detailed studies were made of the water requirements for irrigation of lands under the existing canals diverting from the Snake River. The requirements derived from these studies were used in detailed studies of the operation of the river system covering the period from 1919 to 1942 with all existing reservoirs and the proposed Palisades Reservoir in operation and with the full winter water saving program as previously outlined in effect. The river operation studies were conducted for Plan A and Plan B, described in Chapter IV, in order to determine the adequacy of the water supply under the conditions with and without two projects of new land. This chapter deals with the derivation of the basic data used, the criteria adhered to, and the results of the river operation studies.

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were also neglected because it is believed they will return to the river above Heise and will cause no stream depletion. It is known that there are some seepage losses from American Falls Reservoir, when it is held at high stages, which do not return to the river above Milner. No allowance was made for them in the operation studies because no reliable means of estimating their amount at different reservoir stages could be devised from an analysis of past records of the operation of the reservoir. They are of about the same magnitude as the errors involved in measurements of the inflow to and outflow from the reservoir, and it is impossible to estimate accurately the submerged inflow. The seepage losses under past operating conditions are reflected in records of the flow at Neeley since the reservoir was completed in 1926. The change in the amount of these losses since 1926, which will result from changes in future operation over that of the past, will be very small. All seepage and evaporation losses from Lake Walcott in the past are reflected in the computed river losses or gains between American Falls and Milner used in the operation studies. It is assumed that Lake Walcott will be operated about the same in the future as in the past.

RIVER OPERATION STUDIES

If the winter water conservation program proposed herein is adopted and the proposed Palisades Reservoir is placed in operation, there will be a substantial increase in the supply of stored water available for irrigation use in the Snake River Valley. The increased use of stored water in the upper half of the Valley will in turn increase the river gains which are usable for irrigation. In order to evaluate these increases in the water supply and to determine the adequacy of the augmented supply to meet the irrigation requirement with and without development of new land, a series of operation studies were made of the river system under the different operating conditions. In addition to showing the adequacy of the water supply, these studies demonstrate the most efficient method of operating the series of reservoirs in order to conserve the maximum amount of stored water for irrigation use in critical dry years. The results of the operation studies also serve as a useful guide for selection of the plan for disposal of the reserved space in American Falls Reservoir most satisfactory to all concerned.

In conducting an operation study of a river system as complicated as that of the Snake, it is necessary to make numerous assumptions in setting up basic requirements and operating procedures. The assumptions involved in the various phases of the Snake River operation studies are conservative and practical.

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Those involved in the basic requirements have been discussed heretofore. The criteria adhered to in conducting the operation studies and the results of those studies are discussed in the following paragraphs.

Criteria

The river operation studies were begun with all reservoirs full at the end of June 1918 because stream flow records show that there was sufficient run-off in the spring of 1918 to fill all reservoirs, including Palisades Reservoir, even if all were empty at the end of the 1917 irrigation season. The studies were limited to the period from July 1918 through September 1942. Records of stream flow and diversions are not complete for years prior to 1918, and the water supply has been above normal and not critical since 1942. The period of study includes two years (1931 and 1934) with the lowest run-off recorded since 1896.

The modified flow of the Henrys Fork at Rexburg, as shown by the operation study of that river system, and the computed natural flow at Heise were used as the original water supply available for regulation and use in the Snake River Valley. The operation studies were conducted progressively downstream by applying the various water requirements in the upper valley to this original supply and allowing for the estimated river losses and gains, operation waste, and the anticipated winter water savings in the upper valley in order to obtain the modified flow at Neeley without regulation by American Falls Reservoir. Storage in Jackson Lake and Palisades reservoirs was computed on the basis of their natural and regulated inflows, respectively. The modified flow at Neeley was obtained by adjusting the recorded flow to remove past regulation by American Falls Reservoir and to reflect the operation of the upstream reservoirs as well as the use of water in the upper valley under future conditions. This modified flow was used as the inflow to American Falls Reservoir in conducting the operation study of that reservoir in conjunction with Lake Walcott. Releases from and storage in American Falls Reservoir and Lake Walcott were based on the requirements as derived heretofore for irrigation, domestic, and power use in the lower valley with the proposed water conservation program in effect.

The water assumed saved by elimination of winter diversions was considered as natural flow and was credited to the reservoirs on the basis of the storage right priority of each. The distribution of the winter water savings in accordance with the priority of the storage rights of the several reservoirs would result in all of the saved water being allotted to the American Falls storage right in dry years, when that reservoir would not otherwise fill. Upon first thought this method may seem inequitable insofar

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as the projects making the water saving possible are concerned. A study of the rights that those projects now have in American Falls Reservoir and those which they will likely acquire in Palisades Reservoir, however, will show that they would receive about the same amount of the saved water in this way as they would if Palisades Reservoir were given a special right to store all of the water saved by shutting off canals during winter. As an example, the North Side Twin Falls Project would have to acquire more than 250,000 acre-feet of space in Palisades Reservoir in order to obtain a larger share of the saved water than it would receive through its owned space in American Falls Reservoir. From the standpoint of administration, the method of distribution of the winter water savings according to reservoir storage rights is simpler and less subject to controversy than any other method. The uncertainties involved in estimating and fixing the amount of water saved by elimination of winter diversions would always leave the special storage right for Palisades Reservoir subject to legal dispute.

The winter releases from Palisades Reservoir were limited to those needed to maintain a continuous hydroelectric power output of 15,000 kilowatts, and all winter inflow in excess of this power requirement was stored until the reservoir was full. Water was released from Jackson Lake Reservoir during winter whenever it was needed to maintain the firm power output of the Palisades plant. Such releases could be made without loss to owners of Jackson Lake space through temporary storage of the released water in American Falls Reservoir and subsequent release therefrom to the owners in years when Jackson Lake failed to fill. No releases exclusively for power production were made from Palisades Reservoir or Jackson Lake Reservoir during the irrigation season.

The plan of operation of Palisades Reservoir for flood control purposes depends on what arrangements are finally worked out between the Department of the Interior and the War Department, having regard for the provisions of House Document No. 457, 77th Congress, 1st Session, and of section 7 of the 1944 Flood Control Act. The Bureau of Reclamation and the Corps of Engineers, War Department, have discussed these arrangements at some length, and the Bureau expects to pursue these discussions to a conclusion. The operating plan which the Bureau will seek to have adopted is as follows:

> The top 900,000 acre-feet of storage space will be used jointly for flood control, irrigation, and power development in order to achieve its multiple purposes. The operation of this portion of the reservoir for control of floods will be predicated upon a forecast of the run-off each year. Damaging floods in the Snake

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River result from melting snow, and their magnitude can be forecast from climatic records and snow surveys. With the aid of complete records of snow surveys and subsequent run-off from Jackson Lake watershed since 1919, similar records on the watershed between Jackson Lake and Palisades dam site since 1936, and long-time records of precipitation and temperature, it is believed that a reasonably accurate forecast of the flood volume can be made each year. Operation of Palisades Reservoir would be scheduled to impound flood inflows in excess of the damaging discharge at Heise, which has tentatively been selected as 20,000 cubic feet per second. Beginning on February 1 of each year when damaging floods are in prospect, storage capacity would be vacated as needed in accordance with run-off forecasts made on the first of February and on the first of each succeeding month thereafter, or at more frequent intervals when necessary, until the flood season has started. During the early part of the flood season, the only water impounded in the reservoir would be the flows in excess of 20,000 cubic feet per second at Heise. As soon as it becomes apparent that the danger of high floods has passed, the operations schedule would be aimed to capture the tail end of the flood flow in any remaining unfilled storage capacity of the reservoir.

Evacuation of storage from Palisades Reservoir for flood control purposes in accordance with the foregoing plan was not taken into account in the reservoir operation studies, however, because of the uncertainties involved in run-off forecasting. Absolute accuracy in forecasting the volume and timing of run-off would be needed in critical years in order to realize the amounts of storage shown available for irrigation use each year in the operation studies. It is not reasonable to assume that this accuracy can be obtained in actual practice, however, because the forecasting of run-off is not an exact science. Experience on this and other watersheds with similar run-off characteristics has shown that the errors in forecasting should not average more than 10 to 15 percent; however, they may be as high as 22 percent for the Jackson Lake watershed in any one year. Although such errors will not always cause a loss of irrigation storage water, they should be taken into consideration in appraising the results of the reservoir operation studies shown in this report.

An average operation waste of 20,000 acre-feet per month was allowed in the reach of the river above the Clough gaging station during the irrigation season in order to facilitate the diversions by canals in the vicinity of Blackfoot. This operation waste has averaged about 30,000 acre-feet per month during dry years in the past, but the shorter transmission distance from

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Palisades Reservoir should enable the watermaster to reduce the amount of waste by about one third. No operation waste was allowed at Milner Dam because there has been none in the past. The river can be fully controlled at Minidoka Dam during the irrigation season in dry years, and it is only about 35 miles from there to Milner Dam.

For convenience in conducting the operation studies, the active capacity of Lake Walcott was combined with the capacity of American Falls Reservoir and the two carried as one reservoir inasmuch as there are no diversions between them. The active capacity of Lake Walcott was assumed to be 80,000 acre-feet. Since the completion of American Falls Reservoir, the irrigation season draft on Lake Walcott has equalled or exceeded 80,000 acre-feet in only four years and only 87,000 acre-feet of water was drawn in the extremely dry year of 1934. Any draft in excess of 80,000 acre-feet during the irrigation season interferes with the delivery of water to the canals serving the Minidoka Project.

The actual distribution of the new supply of stored water to projects above and below American Falls will not be known until the disposal of the reserved space in American Falls Reservoir has been decided upon and all contracts for sale of Palisades Reservoir space have been negotiated with existing projects. In conducting the reservoir operation studies, therefore, it was necessary to assume a distribution in order to divide the supply in years of shortage and to estimate the change in river losses and gains in the upper valley. Under Plan A it was assumed that the pooled space would be distributed to the various existing projects so that the shortages above and below American Falls would be about equal in the critical year of 1934. This resulted in 940,000 and 770,000 acre-feet of space being allotted to the upper and lower valleys, respectively. Under Plan B it was assumed that the storage space in Palisades Reservoir would be divided among the existing projects so that those below American Falls would have used practically all of their stored water in 1931, but would have suffered no shortage in that year. This required that 919,000 acre-feet of the space be allotted to the upper valley and 358,000 acre-feet to the lower valley.

If the proposed Palisades Reservoir is constructed, it is believed that every effort should be made to operate all reservoirs in the Snake River system in a manner which will result in the least spills from American Falls Reservoir in wet years and in the maximum delivery of stored water from all reservoirs in dry years. The following criteria were adhered to, therefore, in conducting the reservoir operation studies:

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1. No water was released from Palisades Reservoir for irrigation use in the lower valley until American Falls Reservoir had been emptied.

2. No water was released from Jackson Lake until Palisades Reservoir had been emptied.

3. Water belonging to the American Falls storage right was temporarily stored in space which otherwise would be empty in Palisades, Island Park, and Grassy Lake reservoirs until it was either needed by the American Falls rights or was spilled from the upstream reservoirs.

4. Natural flow was stored in vacant space in Jackson Lake, Palisades, and the Henrys Fork reservoirs during the irrigation season while an equivalent amount of storage water was being released from either Palisades or American Falls Reservoir. This water was either delivered to the downstream reservoirs when it was needed on projects owning space in those reservoirs or was spilled from the upstream reservoirs.

It is evident that the above operating criteria provide a means of accumulating and holding storage in or shifting storage to the farthest upstream reservoirs, which are less likely to spill. The operation of the reservoirs in this manner in actual practice will require that accurate records be kept of seasonal storage allotments and of hold-over storage belonging to the owners of space in each reservoir. The temporary holding of American Falls Reservoir water in upstream reservoirs has been practiced in the past and this practice should be extended to include Palisades Reservoir. The purchasers of space in Palisades Reservoir, therefore, should agree to that procedure when they sign repayment contracts. The present procedures in administration of and accounting for the distribution of stored water will insure that no owner of space will be deprived of any stored water to which he would have been entitled if this practice were not permitted.

Although it was not taken into consideration in the reservoir operation studies, provision should be made for lowering the level of Jackson Lake every fall in order to avoid possible damage to the dam during the winter. This evacuation of storage should be limited to that which can be safely refilled during the following spring. Such refilling will also provide some flood control along the Snake River in the vicinity of Jackson, Wyoming.

The determination of the amount of hold-over storage that may be credited to each storage right in each reservoir at the

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beginning of the irrigation season involves many complexities when the three reservoirs are operated on a hold-over basis. Some of the lower valley projects will have storage rights in all three reservoirs, but will draw all of their storage water from American Falls Reservoir in average years. With the upper and lower valley projects having storage rights in all three reservoirs, an exchange of stored water must be made in order to deliver American Falls storage water to lands in the upper valley. This exchange could always be made with Palisades Reservoir in operation. The question will arise, however, as to whether the exchange should be made between American Falls and Jackson Lake reservoirs or between American Falls and Palisades reservoirs. The amount of hold-over storage that may be credited to the owners of storage rights in American Falls and Palisades reservoirs each spring will be vitally affected by the manner in which the exchanges are made and storage releases are charged during the previous year. No attempt was made to resolve these matters in the river operation studies because the method finally adopted for calculation of the hold-over storage in each reservoir will not appreciably affect the total supply of storage water available to the Snake River Valley as a whole. It will be necessary that a satisfactory method be worked out during the negotiation of repayment contracts with prospective purchasers of space in Palisades Reservoir, however, and the method adopted should be made a part of those repayment contracts. Any method agreed upon should include a limitation that no user will be allowed to accumulate more Palisades storage water than that which can be retained in the space he owns in that reservoir.

Results

Inasmuch as separate operation studies were conducted for Plan A (without new land) and for Plan B (with new land), the results for each plan are discussed separately in the following paragraphs.

Plan A. A summary of the results of the river operation studies with Plan A in effect is shown in Table 16 for the portion of the river system above the Clough gaging station and in Table 17 for the portion below the Clough gaging station. These summaries show that there would have been an adequate supply of stored water for all existing projects throughout the period of study, except during the extremely dry years of 1934 and 1935. The shortages in these two years would have been as shown in the table on page 149.

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Irrig. Season	Upper Valley (Heise to Clough) Ac.-ft.	Upper Valley (Heise to Clough) Percent Of Div. Req't. 1/	Lower Valley (Neeley to Milner) Ac.-ft.	Lower Valley (Neeley to Milner) Percent Of Div. Req't. 2/	Entire Valley (Heise to Milner) Ac.-ft.	Entire Valley (Heise to Milner) Percent Of Div. Req't.
1934	375,000	12	450,000	12	825,000	12
1935	187,000	7	84,000	2	271,000	4

1/ Requirement for May to September, inclusive.
2/ Requirement for April to October, inclusive.

An operation study of the river system with the present winter diversions and only the existing reservoirs in operation was made in order to determine the increase in deliveries of stored water and the decrease in irrigation shortages that would result from placing Palisades Reservoir in operation and from adoption of the proposed winter water saving program. In this operation study it was assumed that the unsold space in American Falls Reservoir would be divided between the existing projects in the upper and lower valleys on the same basis as the pooled space was divided: 55 percent to the upper valley and 45 percent to the lower valley. The same criteria were adhered to in conducting this study as in the study of the river system with Palisades Reservoir in operation in order to make the results comparable. The deliveries of stored water for irrigation use under Plan A with and without Palisades Reservoir and the water-saving program are shown in Table 18. The deliveries are shown graphically on the accompanying drawing entitled "Deliveries of Stored Water--Plan A".

The comparison of shortages in the entire valley with and without Palisades Reservoir and the water-saving program is shown in the table on the following page.

The decrease in the shortages shown in the table is due to the increase in deliveries of stored water as a result of placing Palisades Reservoir in operation, to the adoption of the proposed winter water-saving program, and to the increase in the usable river gains in the upper valley which would result from the application of additional storage water on lands in that area.

It should be recognized that the deliveries of stored water from the four reservoirs in the Snake River system, as shown by the operation studies, do not represent the maximum possible yield of the reservoir system. These deliveries merely indicate

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the extent of reservoir use necessary to supplement the natural flow in order to meet the diversion requirements of the existing irrigation projects on the river. The deliveries do not show the full capability of the reservoir system. If there were a demand for 3,859,000 acre-feet of stored water in every year of the period of study, all reservoirs would have been emptied every year, and the annual delivery of stored water would have been equal to the total storable inflow. In order to demonstrate this principle, the amount of water accruing to the storage right of each of the four reservoirs in each year was computed from the results of the operation studies of Plan A. The yield of each reservoir's storage right was computed on the basis of river flows and irrigation requirements in total acre-feet per month. No attempt was made to determine the actual day on which the storing season began and ended. The possible annual yield of the four reservoirs with an annual demand equal to their combined irrigation capacity of 3,859,000 acre-feet is shown in Table 19. The information is presented graphically by the accompanying drawing entitled "Yield of Reservoir Storage Rights--Plan A." This drawing clearly shows the relative value of the several storage rights with the proposed winter water conservation program in effect.

Irrigation Season	Shortages with Present Storage Facilities and With Present Winter Diversions (Acre-feet)	Shortages with Palisades Reservoir in Operation and with Proposed Winter Water Conservation Program in Effect (Acre-feet)	Difference (Acre-feet)
1919	413,000	0	413,000
1924	94,000	0	94,000
1926	71,000	0	71,000
1931	1,265,000	0	1,265,000
1933	228,000	0	228,000
1934	2,913,000	825,000	2,088,000
1935	859,000	271,000	588,000
1937	141,000	0	141,000
1940	201,000	0	201,000
1941	147,000	0	147,000
Total	6,332,000	1,096,000	5,236,000
24-Year Average	264,000	46,000	218,000

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TABLE 19

POSSIBLE YIELD OF RESERVOIR STORAGE RIGHTS WITH WATER CONSERVATION PROGRAM IN EFFECT

PLAN A

Units of 1,000 Acre-feet

Water Year	Jackson Lake Reservoir	Palisades Reservoir	American Falls Reservoir 1/	Lake Walcott	Total
1919	356	875	1,655	80	2,966
1920	728	492	1,655	80	2,955
1921	847	1,277	1,655	80	3,859
1922	773	1,257	1,655	80	3,765
1923	705	1,146	1,655	80	3,586
1924	181	409	1,655	80	2,325
1925	847	963	1,655	80	3,545
1926	245	744	1,655	80	2,724
1927	847	1,277	1,655	80	3,859
1928	847	1,277	1,655	80	3,859
1929	506	692	1,655	80	2,933
1930	297	315	1,655	80	2,347
1931	185	161	1,655	80	2,081
1932	769	0	1,655	80	2,504
1933	508	0	1,655	80	2,243
1934	127	0	1,325	80	1,532
1935	530	0	1,123	80	1,733
1936	847	548	1,655	80	3,130
1937	382	0	1,655	80	2,117
1938	847	570	1,655	80	3,152
1939	335	669	1,655	80	2,739
1940	189	187	1,655	80	2,111
1941	190	163	1,655	80	2,088
1942	532	595	1,655	80	2,862
Average	526	567	1,619	80	2,792
Average % of Capacity:	62	44	98	100	72

1/ Does not include power water storage right of 45,000 acre-feet.

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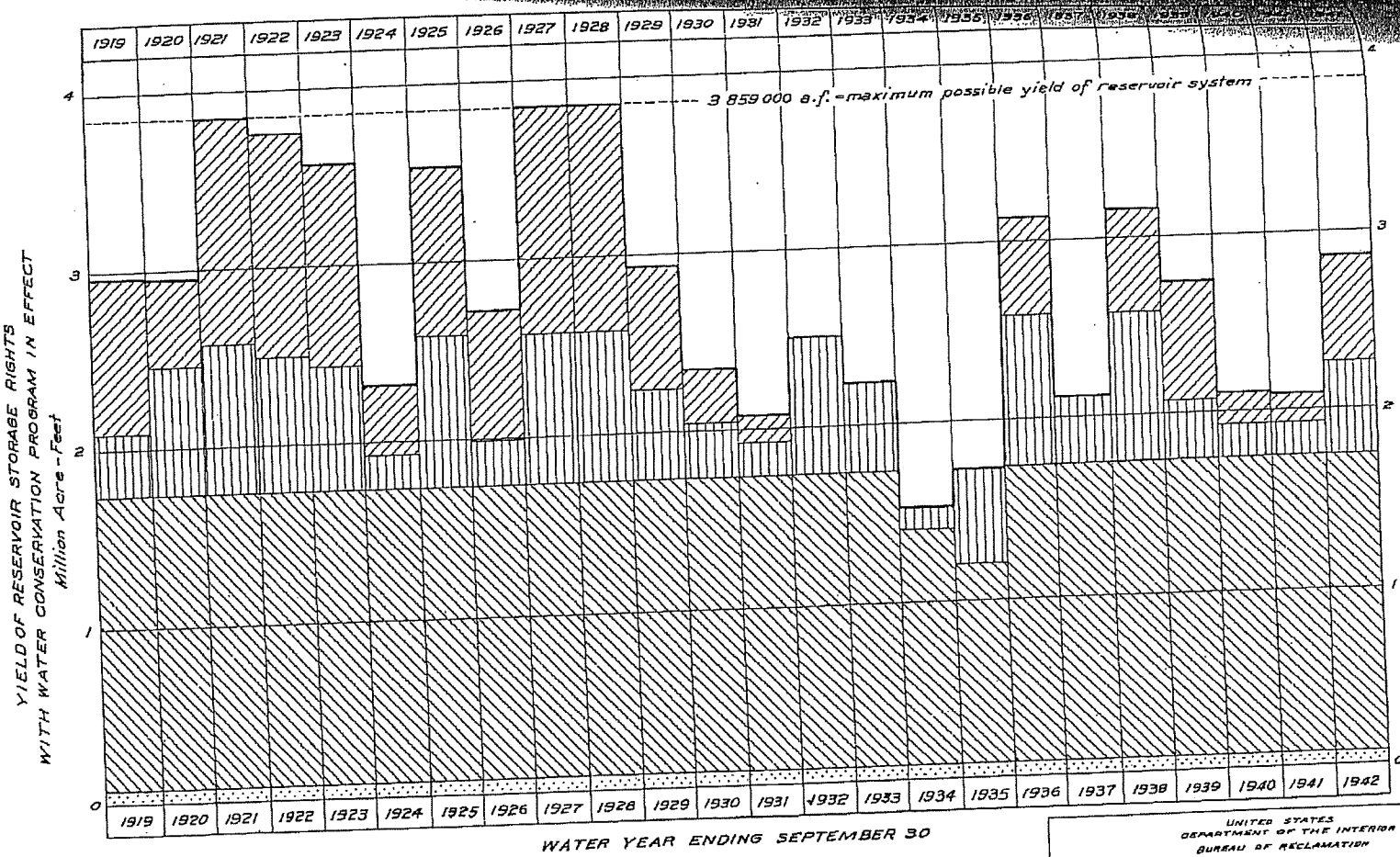

Palisades Reservoir

Jackson Lake

American Falls Reservoir (not including power water storage right of 45 000 a.f.)

Lake Walcott

NOTE

Yield of reservoir storage rights is based on operation studies with the proposed winter water conservation program in effect.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

PALISADES RESERVOIR PROJECT-IDAHO

YIELD OF RESERVOIR STORAGE RIGHTS
PLAN A

DRAWN: [illegible] SUBMITTED: F. M. Clinton
TRACED: [illegible] RECOMMENDED: Geo. N. Carter
CHECKED: [illegible] APPROVED: [illegible]

5.17-P-52 BOISE, IDAHO. DEC. 21, 1945

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The extent of use of the total yield of the reservoir system and the amount of hold-over storage delivered from year to year under Plan A are shown graphically by an accompanying drawing entitled "Yield of Storage Rights and Deliveries of Stored Water--Plan A." It is evident from this graphical presentation that hold-over storage actually can be used only in either extremely dry years or in a succession of dry years. Hold-over storage can be accumulated in many years, but a large portion of it is dissipated by spills before the need for it occurs. It should be recognized that the deliveries of hold-over storage shown by the operation studies are based on operation of all projects in the upper valley as a unit and on operation of all projects in the lower valley as a unit. An analysis of the deliveries of stored water to individual projects within these units would very likely show that some projects retained storage at the end of the 1934 and 1935 irrigation seasons while others suffered an equivalent increase in shortage. The future distribution of space in Palisades Reservoir will vitally affect the deliveries of stored water to individual projects. The most equitable distribution of this new space would provide for every existing project using all of its storage water in existing reservoirs and in Palisades Reservoir during the 1934 irrigation season.

The operation study of the river system under conditions of Plan A showed that a firm or continuous power output of 15,000 kilowatts, or 131,000,000 kilowatt-hours annually, could have been maintained throughout the 24-year period, except during five months of the critical winter of 1934--35. During those months an average deficiency of about 12 per cent would have occurred. The Palisades power plant could have been operated at its full capacity of 30,000 kilowatts during May to September, inclusive, in all years of the period of study. It would have been necessary to release water from Jackson Lake Reservoir in order to maintain the above firm power output in 1932, 1935, and 1936, but this water would not have been lost because American Falls Reservoir would not spill in those years. Sufficient water could always be stored in Jackson Lake and Palisades reservoirs during the following spring to meet the needs for stored water in the upper valley. In order to assure the above firm power output, it will be necessary that water users having storage rights in Jackson Lake agree to such winter releases from that reservoir. This agreement should include a provision that a record be kept of such releases and that any loss of irrigation storage water resulting from the practice shall be charged to the Palisades storage rights. The Jackson Lake rights would have been fully protected in 1932, 1935, and 1936 by retaining all of the water to their credit in American Falls Reservoir.

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Plan B.--A summary of the results of the operation studies of the river system with Palisades Reservoir and development of 67,000 acres of new land in the Fort Hall and Minidoka projects is shown in Tables 20 and 21. This operation study showed that there would have been an adequate supply of stored water for all existing projects and for the two projects of new land throughout the period of study, except during the dry years of 1934 and 1935. The shortages shown for the existing projects in those two years are as follows:

Irrig. Season	Upper Valley (Heise to Clough)		Lower Valley (Neeley to Milner)		Entire Valley (Heise to Milner)	
	Ac.-ft.	Percent of Diversion Req't. 1/	Ac.-ft.	Percent of Diversion Req't. 2/	Ac.-ft.	Percent of Diversion Req't.
1934	1,379,000	44	803,000	22	2,182,000	32
1935	502,000	18	157,000	5	659,000	11

1/ Requirement for May to September, inclusive.
2/ Requirement for April to October, inclusive.

The two projects of new land would have had a full water supply in every year of the period of study, except in 1934 and 1935 when the American Falls storage right would not have been filled. The shortage in 1934 would have amounted to about 15 percent and that in 1935 would have been about 29 percent. Neither of these shortages would have caused serious crop losses.

An operation study was made of the river system under present conditions with winter diversions and with only the existing reservoirs in operation, but with 67,000 acres of new land under irrigation in the Fort Hall and Minidoka projects. The results of this operation study were compared with those shown by the operation study of Plan B with Palisades Reservoir and the water saving program. In this manner the increase in deliveries of stored water and the decrease in shortages that would result from placing Palisades Reservoir in operation and adoption of the proposed winter water saving program was determined. Inasmuch as the same criteria were adhered to in both studies, the results are comparable. The comparison of deliveries of stored water under each condition is shown in Table 22 and by the accompanying drawing entitled "Deliveries of Stored Water--Plan B." The smaller delivery of stored water in 1930 with Palisades Reservoir and the water saving program is due to the fact that the two projects of new land could have diverted some natural flow in that year because American Falls Reservoir would have spilled in May. No spills would have occurred

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The possible annual yield of each reservoir's storage right under Plan B was computed from the results of the operation studies of Plan B in the same manner as for Plan A and is shown in Table 23. These yields are shown graphically by the accompanying drawing entitled "Yield of Reservoir Storage Rights--Plan B." The increase in the yield of storage rights over that shown for Plan A is due mainly to the return flow from irrigation of new land in the Michaud Unit which increased the storable inflow to American Falls Reservoir. The extent of use of the total yield of the reservoir storage rights and the amount of hold-over storage actually used under Plan B is shown graphically by the accompanying drawing entitled "Yield of Storage Rights and Deliveries of Stored Water--Plan B." A comparison of this graph with the similar graph for Plan A will reveal that more use is made of the yield of the reservoir system when the demand for stored water is increased by placing the two projects of new land in operation. The existing projects would have to make more frequent and heavier drafts on the storage in Palisades Reservoir because they would not have the use of the 433,000 acre-feet of reserved space in American Falls Reservoir.

The same firm hydroelectric power output could have been maintained under Plan B as under Plan A. For all practical purposes, the secondary power output at the Palisades plant may be considered to be the same under either plan.

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TABLE 23

POSSIBLE YIELD OF RESERVOIR STORAGE RIGHTS WITH WATER CONSERVATION PROGRAM IN EFFECT

PLAN B

Units of 1,000 Acre-feet

Water Year	Jackson Lake Reservoir	Palisades Reservoir	American Falls Reservoir 1/	Lake Walcott	Total
1919	369	932	1,655	80	3,036
1920	728	584	1,655	80	3,047
1921	847	1,277	1,655	80	3,859
1922	773	1,277	1,655	80	3,785
1923	705	1,239	1,655	80	3,679
1924	181	466	1,655	80	2,382
1925	847	1,056	1,655	80	3,638
1926	245	801	1,655	80	2,781
1927	847	1,277	1,655	80	3,859
1928	847	1,277	1,655	80	3,859
1929	529	704	1,655	80	2,968
1930	310	372	1,655	80	2,417
1931	185	218	1,655	80	2,138
1932	769	45	1,655	80	2,549
1933	532	58	1,655	80	2,325
1934	127	0	1,378	80	1,585
1935	529	0	1,180	80	1,789
1936	847	641	1,655	80	3,223
1937	386	0	1,655	80	2,121
1938	847	639	1,655	80	3,221
1939	348	722	1,655	80	2,805
1940	189	244	1,655	80	2,168
1941	203	220	1,655	80	2,158
1942	555	665	1,655	80	2,955
Average	531	613	1,624	80	2,848
Percent of Capacity	63	48	98	100	74

1/ Does not include power water storage right of 45,000 acre-feet.

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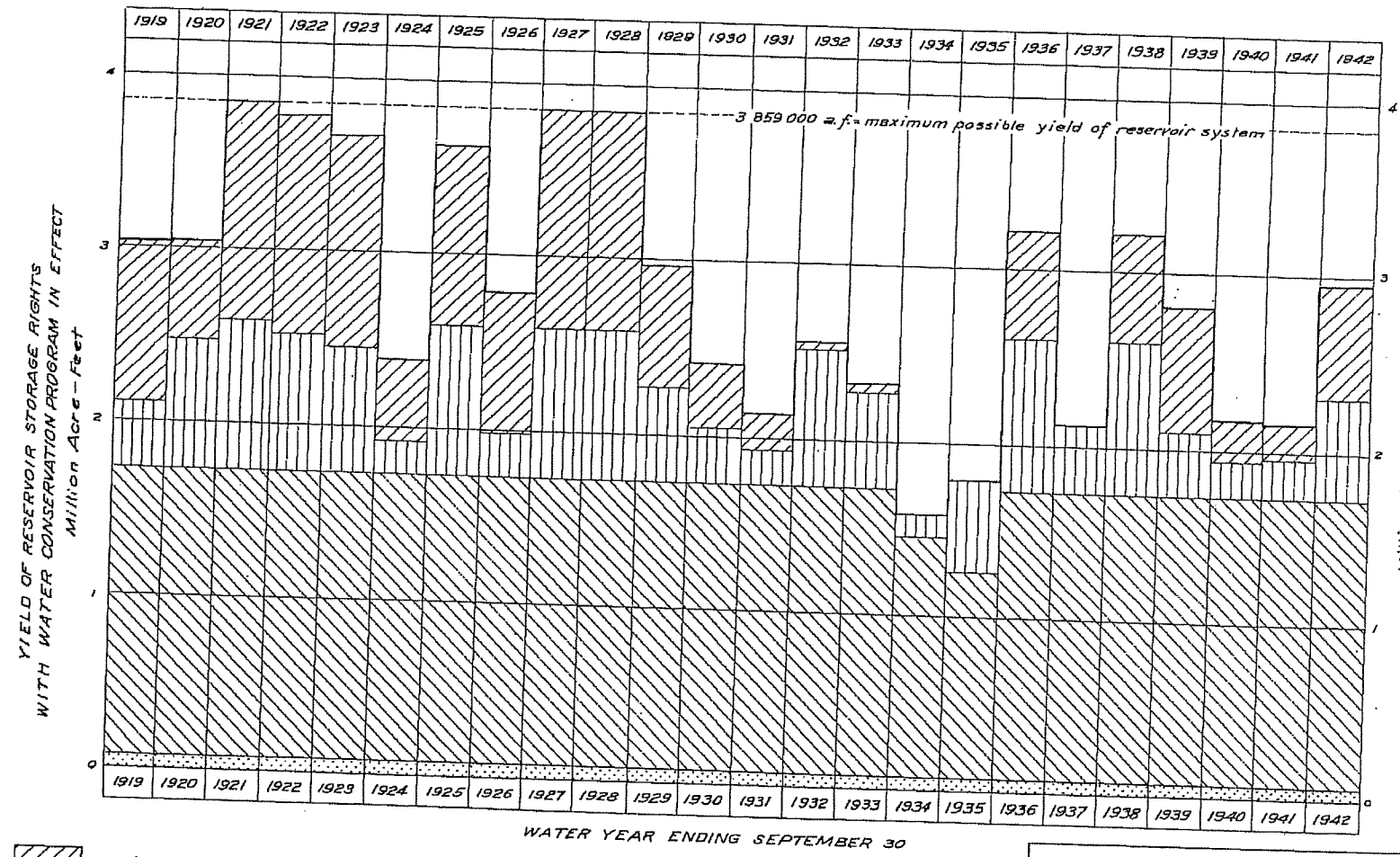

Palisades Reservoir

Jackson Lake Reservoir

American Falls Reservoir (not including power water storage right of 45000 a.f.)

Lake Walcott

NOTE

Yield of reservoir storage rights is based on operation studies with the proposed winter water conservation program in effect

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PALISADES RESERVOIR PROJECT-IDAHO

YIELD OF RESERVOIR STORAGE RIGHTS

PLAN B

DRAWN: [illegible] SUBMITTED: F. M. Clinton

TRACED: H.H.S. [illegible] RECOMMENDED: Geo. H. Carter

CHECKED: [illegible] APPROVED: [illegible]

5.17-P-55 | BOISE, IDAHO. JAN. 5, 1946

B1_IPC0011492

CHAPTER VII

SUMMARY AND CONCLUSIONS

The advantages and disadvantages of Plan A and Plan B, from the standpoint of the water users on existing projects, can be appraised best by a comparison of the water supply available for those projects under each plan. In order to facilitate this comparison, the accompanying graphs showing the supply of natural flow, seasonal storage, and hold-over storage used and shortages suffered by the existing projects under each plan were prepared. These graphs and Tables 24 and 25, from which they were plotted, show that the existing projects would have had an adequate water supply under either plan in all years except 1934 and 1935. The shortage in 1934 under Plan B would have been about 1,357,000 acre-feet greater than that under Plan A. The 1935 shortage would have been increased by about 388,000 acre-feet as a result of developing the two projects of new land. The large increase in the 1934 shortage under Plan B is due to the fact that the existing projects would have had to make heavier drafts of their hold-over storage in 1931 and 1933 because they would not have had the use of the firm annual yield of the reserved space in American Falls Reservoir as in Plan A. In order to reduce the 1934 shortage by about 20 percent and the 1935 shortage by about seven percent of the diversion requirement, the water users on existing projects would have to increase their annual payment for storage facilities by about $60,000. Although it would be desirable to reduce the 1934 and 1935 shortages to those shown for Plan A, the economic feasibility of achieving this goal might be questionable when the frequency of occurrence of such dry years is considered. Such a condition has occurred only once during the 50-year period in which the flows of Snake River have been recorded, and studies of climatic cycles over long periods in the West indicate that it should not occur oftener than once in every 100 years. In order to provide protection against a recurrence of a shortage as severe as in the 1930--1940 period under Plan A, therefore, the water users would incur the cost of an additional 433,000 acre-feet of reservoir space which they might not use oftener than once in every 100 years. In all years of the period of study, except 1934 and 1935, the amount of water accruing to the Palisades storage right together with the accumulated hold-over storage would be sufficient to guarantee a full water supply for the existing projects. The Palisades delivery would thus be equal to the delivery from the reserved space in American Falls Reservoir in all years except 1934 and 1935, if both reservoirs were used to provide a supplemental supply of stored water for existing projects.

From the standpoint of the most efficient use of the water resources of the Snake River, it appears that Plan B is the more desirable. A comparison of the deliveries of stored water under each plan

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EXHIBIT 34

Report On Upper Snake River (South Fork) Storage Investigations,
Grand Valley Reservoir
(United States Dep't of the Interior, Bureau of Reclamation)
(Project Investigations Report No. 34-A) (Aug. 1940)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
Harold L. Ickes, Secretary

BUREAU OF RECLAMATION
John C. Page, Commissioner

- - -

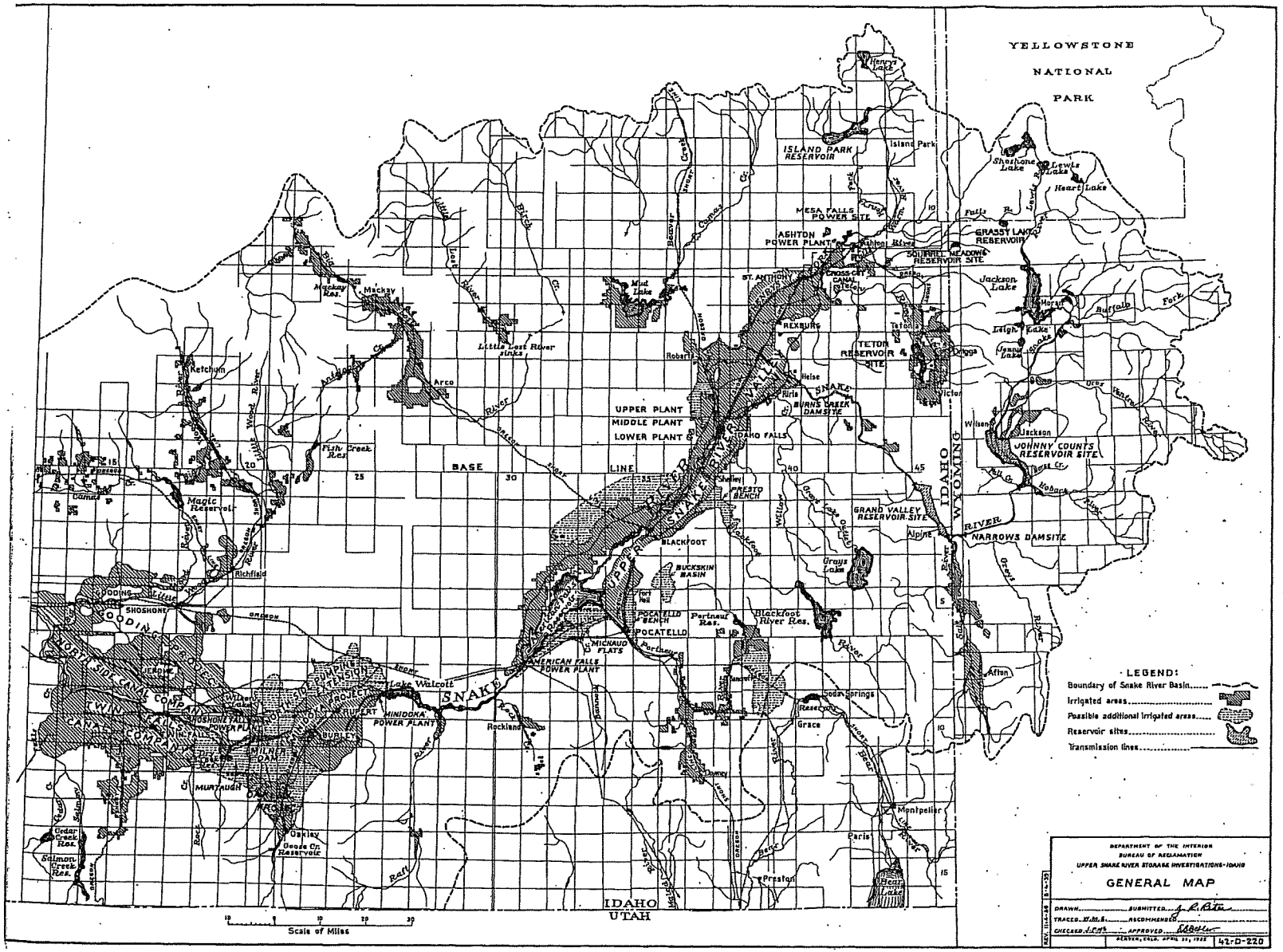
REPORT ON
UPPER SNAKE RIVER
(SOUTH FORK)
STORAGE INVESTIGATIONS

GRAND VALLEY RESERVOIR

August 1940

PROJECT INVESTIGATIONS REPORT NO 34-A

JRP007802


YELLOWSTONE
NATIONAL
PARK
ISLAND PARK RESERVOIR
MESA FALLS POWER SITE
ASHTON POWER PLANT
SQUIRREL MEADOWS RESERVOIR SITE
GRASSY LAKE RESERVOIR
TETON RESERVOIR SITE
JOHNNY COUNTS RESERVOIR SITE
GRAND VALLEY RESERVOIR SITE
NARROWS DAMSITE
BURNS CREEK DAMSITE
UPPER PLANT
MIDDLE PLANT
LOWER PLANT
BASE
LINE
IDAHO
WYOMING
UTAH
SNAKE
RIVER
POCATELLO
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AMERICAN FALLS POWER PLANT
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Fish Creek Res.
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Mud Lake
Henrys Lake
Island Park
Shoshone Lake
Lewis Lake
Heart Lake
Jackson Lake
Jackson
Alpine
Afton
Grace
Montpelier
Paris
Preston
Rockland
Oakley
Goose Cr. Reservoir
Cedar Creek Res.
Salmon Creek Res.
Ketchum
Mackay
Arco
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Blackfoot
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Portneuf Res.
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Irrigated areas
Possible additional irrigated areas
Reservoir sites
Transmission lines
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BUREAU OF RECLAMATION
UPPER SNAKE RIVER STORAGE INVESTIGATIONS-IDAHO
GENERAL MAP
DRAWN
SUBMITTED
TRACED
RECOMMENDED
CHECKED
APPROVED
42-D-220

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some years but arrangements effective since 1934 for reduction of winter uses below American Falls for power, together with possible future reduction in domestic and stock water uses, will eventually result in American Falls reservoir filling practically every year. Even so, there is an insistent demand for more irrigation water both above and below American Falls reservoir, to provide supplemental water and to enable irrigation extensions.

The results of studies made in 1935 of surplus water and of operation of existing and proposed upstream reservoirs based on full irrigation development under existing canals and of the proposed Minidoka North Side pumping project with the "water saving" contract of October 1, 1934, with the Idaho Power Company in effect, with winter diversions at Milner dam reduced to an average of 650 second-feet, and with proposed reservoirs on Henrys Fork and tributaries for Fremont-Madison Irrigation District completed, were presented in the June 1935 report on "Snake River above Idaho Falls". Conclusions presented in that report are:

(a) While a single large reservoir (having an active storage capacity of about 1,400,000 acre-feet) located on Snake River between Jackson, Wyoming and Ririe, Idaho, would, without additional conservation measures, practically eliminate all shortages prior to 1931 and reduce the 1931 shortage by one third, no surplus water would be captured in such reservoir after 1931 to reduce the slight shortage of 1932, the moderate shortage of 1933 and the record (heaviest of record) shortage of 1934.

(b) Water is used very wastefully within the Snake River Valley and there is ample opportunity to provide surplus water for use in overcoming the shortages in the critical

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1902	- - - - - -	117,000 acres
1909	- - - - - -	500,000 "
1919	- - - - - -	869,000 "
1929	- - - - - -	849,000 "
1939 (From watermaster's report)	- - -	925,000 "

Reservoirs constructed to supplement the natural flow of Snake River for irrigation purposes have already been described on pages 1 & 2.

The area irrigated from Henrys Fork and tributaries is nearly 200,000 acres. Natural flow of these streams will be supplemented for irrigation purposes by reservoirs as follows:

Henrys Lake	-	79,000 A.F.	- constructed in 1922
Island Park	-	128,000 A.F.	- " " 1939
Grassy Lakes	-	15,000 A.F.	- " " 1940
Squirrel Creek	-	7,000 A.F.	- permit pending.

The Teton Reservoir on Teton River near Driggs, if constructed, would probably have a storage right junior to that of the Grand Valley Reservoir and is therefore omitted from consideration in this report.

Surplus Water

The surplus water on Snake River for storage in the proposed Grand Valley Reservoir is determined from a consideration of inflow to the American Falls Reservoir and the prior demand thereon ahead of Grand Valley Reservoir for irrigation, power, domestic use and storage replenishment of the American Falls Reservoir and upstream reservoirs of prior rights. Reservoir operation studies

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were carried forward for the 22-year period 1918 to 1939 inclusive. Required releases from the American Falls Reservoir were estimated from past operating records and allowances for full irrigation development under existing canals as follows:

(a) Winter power releases from American Falls Reservoir as defined by the "Water Savings" contract of October 1, 1934, with the Idaho Power Company. This contract provides that the Idaho Power Company will very materially reduce its past uses of winter water at its power plants on Snake River between American Falls and Twin Falls, and also supply electrical energy to the Minidoka Project to permit the conservation of winter water formerly wasted for power purposes at the Minidoka Dam. Studies of gains in Snake River between the Milner Dam and the Shoshone Power Plant indicate that an average of 95,000 acre-feet of water seasonally is required to be passed the Milner Dam to meet this requirement. It is further assumed that the Idaho Power Company will release its primary storage of 45,000 acre-feet each year.

(b) The canal companies in this region have made an effort since execution by the Idaho Power Company of the water savings contract to reduce winter diversions. In the

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future these winter diversions may be very largely eliminated and domestic and stock water attained from wells. However, there are many uncertain factors connected with the attainment of this goal and for the purpose of arriving at storable waters under present conditions, winter diversions (November 1 to March 31) are estimated to equal the average of the past 5 years as follows:

Minidoka Project - - - -	30,000 A.F.
North Side Twin Falls - -	125,000 A.F.
South Side Twin Falls - -	160,000 A.F.
Total	315,000 A.F.

(c) Lake Walcott is assumed emptied every irrigation season and the storage therein replenished during the following winter.

(d) Past combined irrigation diversions by the Minidoka Canals, Twin Falls Canal Company, North Side Canal Company, and Milner Low Lift, increased (where necessary) to meet the ideal schedule shown in second column of table 2.

(e) Requirements by Gooding Canal estimated to be 450,000 acre-feet annually as shown in third column of table 2.

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TABLE 2

Ideal Irrigation Requirements Below
American Falls Reservoir

Units - 1000 A. F.

Month	Total for Minidoka Project: Twin Falls Canal Company: North Side Canal Company and Milner Low Lift*	Gooding Project	Total
April	200	20	220
May	500	75	575
June	570	80	650
July	650	100	750
August	630	100	730
September	450	65	515
October	250	10	260
Total	3,250	450	3,700

* In occasional years when past diversions, in April and May exceeded the ideal schedule, such past diversions were used instead of the ideal schedule.

The past records of inflow to the American Falls Reservoir, prior to 1927 were reduced by 240,000 acre-feet annually to reflect present conditions of irrigation, by reason of increased consumptive use, following the availability of American Falls storage by exchange for Jackson Lake storage or natural flow above the American Falls Reservoir.

The constructed reservoirs on Henrys Fork and tributaries and proposed Squirrel Meadows Reservoir (combined capacity about 150,000 acre-feet) assumed empty at beginning of each storing season. Since these reservoirs would have a priority later than the

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merican Falls Reservoir, no water would ordinarily accrue to their benefit during years of low run-off when the American Falls Reservoir failed to fill. The water saving contract of October 1, 1934, with the Idaho Power Company, provides in part as follows:

> "It is agreed that the water conserved and made available by the terms of this agreement is for storage in the American Falls Reservoir except for water saved by the company's release of the right to have water discharged over Milner Dam which water may be stored in the Island Park Reservoir or Teton Reservoir, if built."

An accurate determination of the amount of water that will accrue to the Island Park Reservoir through this provision is made difficult by lack of adequate data on the amount of water that would need be by-passed from Milner Dam to fully meet the rights of the Idaho Power Company under the changed conditions. In the repayment contract with the Fremont-Madison Irrigation District the amount of such saving is set forth as "about 45,000 acre-feet". For the purpose of this study the water thus accruing to the Island Park Reservoir is estimated as 45,000 acre-feet per year.

Allowance was made for the anticipated increase in return flow to Snake River by reason of augmented irrigation use on the Fremont-Madison District.

Other factors, which have a bearing on the study are enumerated as follows:

(a) Jackson Lake and other reservoirs, except those recently constructed or proposed for the Fremont-

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Madison Irrigation District, assumed to operate as in the past, following their completion. Appropriate deductions made in American Falls storable inflow prior to 1924 to allow for completion or enlargement of existing reservoirs between 1918 and 1924.

(b) Study based on monthly records of inflow, outflow, storage changes, etc., except at the end of the storing season, when daily records were examined.

(c) Unsold American Falls storage capacity (about 433,000 acre-feet) assumed used by present canals under temporary lease as at present.

(d) Evaporation and seepage losses and accumulation of bank storage at American Falls Reservoir, as reflected by past operating records.

The results of American Falls Reservoir operations on the basis outlined are briefed in the following table for the past 22-year period.

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TABLE 3

Units - 1000 acre-feet

Irrigation Year	Waters withheld for reservoirs of Fremont-Madison District	Spill from American Falls Reservoir	Maximum content of American Falls Reservoir	Holdover storage at American Falls Reservoir at end of season	Irrigation shortages for canals below American Falls Reservoir
	(1)	(2)	(3)	(4)	(5)
1918	150	*	*1700	1265	
1919	150	1070	1700	0	64
1920	45	0	1580	590	
1921	150	1725	1700	790	
1922	150	1220	1700	760	
1923	150	805	1700	825	
1924	150	370	1700	0	357
1925	150	513	1700	1065	
1926	150	1067	1700	0	4
1927	150	892	1700	1205	
1928	150	3206	1700	640	
1929	150	731	1700	485	
1930	150	63	1700	210	
1931	45	0	1650	0	746
1932	45	0	995	0	245
1933	45	0	1093	0	248
1934	45	0	890	0	1679
1935	45	0	700	0	813
1936	150	151	1700	310	0
1937	45	0	1530	0	46
1938	150	325	1700	605	0
1939	150	521	1700	0	60
Avge. for 22 years	117	603	1543	398	191

*Calculations begin with assured full reservoir in 1918.

Shortages Under Present Canals

The last column in table 3 shows the remaining shortages, following full development, under existing canals between American Falls and Milner Dam.

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Canals out of Snake River proper between Heise and American Falls Reservoir irrigate 400,000 acres from natural flow supplemented by their owned storage rights in Jackson Lake Reservoir amounting to 102,000 acre-feet of the bottom 437,810 acre-feet of capacity, and in American Falls Reservoir amounting to 254,000 acre-feet. These lands also lease about 180,000 acre-feet of American Falls storage. The American Falls storage is exchanged for Jackson Lake waters owned below American Falls Reservoir. A comparison of diversions in recent years with diversions in years when the water supply was known to be adequate indicates that shortages have occurred as shown in table 4.

Table 3 indicates that the only water storable in dry years in the reservoirs on Henrys Fork and tributaries is that which would accrue to them as a result of the terms of the water saving contract of October 1, 1934.

In actual practice these reservoirs would be filled during the winter and spring flood months of each irrigation season and in years when this results in not filling the American Falls Reservoir, sufficient of the impounded waters will be released from Henrys Fork reservoirs to replace American Falls water improperly captured in the Henrys Fork reservoirs except as (1) American Falls storage participants may in some years forego the call for such improperly impounded waters, or (2) holdover storage may be provided

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for the benefit of the Henrys Fork water users in the proposed Grand Valley Reservoir and water released therefrom in lieu of Henrys Fork storage in which case Henrys Fork interests would need acquire the right to such use of holdover storage.

The following table shows the estimated shortages, with present irrigation practice, following contemplated full development of the irrigable areas under existing canals in the Upper Snake River Valley. This table also shows the extent to which these shortages can be eliminated with 1,300,000 acre-feet of active capacity in the Grand Valley Reservoir.

TABLE 4

Units - 1000 A.F.

Year	Snake River Canals - American Falls to Milner	Snake River Canals above American Falls	Henrys Fork: to insure filling of reservoirs	Total	Operations of new reservoir with 1,300,000 A.F. Capacity	
					Yield	Remaining Shortage
	(1)	(2)	(3)	(4)	(5)	(6)
1918	0	0	0	0	0	0
1919	64	500	0	564	564	0
1920	0	0	105	105	105	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	357	255	0	612	612	0
1925	0	0	0	0	0	0
1926	4	0	0	4	4	0
1927	0	0	0	0	0	0
1928	0	0	0	0	0	0
1929	0	84	0	84	84	0
1930	0	0	0	0	0	0
1931	746	566	105	1417	1170	247
1932	245	8	105	358	0	358
1933	248	32	105	385	0	385
1934	1679	612	105	2396	0	2396
1935	813	207	105	1125	0	1125
1936	0	0	0	0	0	0
1937	46	69	105	220	140	79
1938	0	0	0	0	0	0
1939	60	0	0	60	60	0
22-yr. avge	194	106	33	333	125	208

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It may be possible with a somewhat different plan for the operation of existing reservoirs, than that assumed herein, to shift the shortages somewhat from one area to another but the total thereof would not be changed.

SELECTION OF RESERVOIR CAPACITY

Conclusions regarding the frequency of use of various amounts of Grand Valley storage capacity, in the years 1896 to 1917 inclusive, are based on present annual run-offs at American Falls (drawing 42-D-845, page 30) and relationship curves. The operation studies for the period 1918 to 1939 are presented in tables 3 and 4. From the relationship for that period between annual run-off and (a) waters storable in Grand Valley Reservoir (column 2 of table 3) and (b) demand on Grand Valley storage, were derived storable flows and demands on storage for the period of 1896 to 1917, and reservoir operations estimated for that same period. The following conclusions are then drawn regarding the average frequency of use of the irrigation of Grand Valley Reservoir:

(a) Up to 630,000 acre-feet, average of once in 10 years.

(b) Between 630,000 acre-feet and 700,000 acre-feet, average of once in 15 years.

(c) Between 700,000 acre-feet and 1,070,000 acre-feet, average of once in 20 years.

(d) Capacity in excess of 1,070,000 acre-feet, once in 40 years.

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EXHIBIT 35

Excepts, Project History – Minidoka Area Projects,
Idaho – Wyoming, 1979 Calendar Year

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

RG 115 RECORDS OF THE BUREAU OF RECLAMATION FY 92

Engineering & Research Center
Project Histories

Lower Yellowstone
through
Mountain Park, 1979

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PROJECT HISTORY

MINIDOKA PROJECT, IDAHO

1979

VOLUME 73

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UNITED STATES
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PROJECT HISTORY

MINIDOKA AREA PROJECTS

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Although Jackson Lake filled to the restricted capacity of 624,360 acre-feet, the April-July runoff for this watershed was only 69 percent of the 15-year average, 1963 to 1977. Discharge flows from Jackson Lake Reservoir were reduced to approximately 250 cubic feet per second by the middle of September again this year in order to assist the maintenance crews working in the outlet tunnels. It is anticipated that this will be the last year that the early shutdown will be needed because of this repair work.

Palisades Reservoir began the storage season with a good carryover. Consequently a good power flow was experienced during the extreme cold weather. This also aided in keeping the river channel open near Blackfoot during this sub-zero weather. Palisades refilled to 87 percent of its total capacity of 1,200,000 acre-feet by late June. The April-July runoff at Heise was 81 percent of normal.

The runoff from the Island Park watershed was 76 percent of normal. Because of reconstruction work to be done during the winter months of 1979 and 1980, and the need to completely drain the reservoir, a good release flow was maintained throughout the summer months. Cooperation with the Idaho Fish and Game Department permitted them to successfully eradicate the trash fish in order that the reservoir could be restocked with game fish. While the reservoir was empty, work was completed for the calculation of new Area Capacity Tables.

American Falls Reservoir filled to its total capacity of 1,700,000 acre-feet. During the reconstruction of the dam in 1977, work was completed to provide data to calculate new Area Capacity Tables. These were published during the 1979 water year, so it was determined to place the tables into effect on October 1, 1979, the beginning of the new water year.

The new capacity of American Falls Reservoir is determined to be 1,672,590 acre-feet. Each spaceholder will own 98.3876 percent of the original space. Thus each spaceholder shares equally in the loss of reservoir space due to sedimentation.

Storage allocation of 3,368,360 acre-feet was allocated for the 1979 irrigation season. Because of the lack of precipitation throughout the season, the natural flow dropped off rapidly causing a heavy drain on the reservoirs. American Falls was drafted to 35,000 acre-feet. Lake Walcott at Minidoka Dam and Milner Dam were both depleted of usable storage by the end of the season. The carryover at the end of the irrigation season was only 1,358,225 acre-feet of water which was allocated to the spaceholders.

B. Maintenance - Major maintenance was accomplished on the Project in 1979 as follows:

1. American Falls Reservoir - Approximately 1,000 linear feet of the reservoir shoreline located about three miles upstream from the

JRP033398

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 36

Excepts, "Report of Board of Engineers to Consider Projects in Snake River Valley Which May Affect The Proposed American Falls Reservoir, Idaho," including tramsittal letter (Apr. 10, 1920)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

REPORT OF BOARD OF ENGINEERS

to consider Projects in Snake River Valley which may affect the proposed AMERICAN FALLS RESERVOIR and the Available Water supply therefor.

Prepared by Board of Engineers, composed of

Mr. I. W. McConnell
Mr. F. W. Hanna
Mr. E. B. Darlington
Mr. W. G. Swendsen
Mr. J. C. Wheelon
Mr. James Munn

April 10, 1920

REPORT OF BOARD OF ENGINEERS

to consider Projects in Snake River Valley which may affect the proposed

AMERICAN FALLS RESERVOIR, IDAHO

Prepared by Board of Engineers, composed of

Mr. I. W. McConnell
Mr. F. W. Hanna
Mr. E. B. Darlington
Mr. W. G. Swendsen
Mr. J. C. Wheelon
Mr. James Munn

April 10, 1920

- - - -

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APPENDIX

Chief of Construction's letter of March 30, 1920 instructing Board of Engineers. . . . . Exhibit "A"

Map of Snake River Basin. . . . . Exhibit "B"

Relation of Irrigation Draft to Reservoir Capacity (blue print) . . . . . Exhibit "C"

Shortages and Wastes for assumed Irrigation drafts and storage for period of 1896 to 1918 based on Snake River records at Neeley (tabulation) . . Exhibit "D"

Paul S. A. Bickel's report on Shelley Canal . . Exhibit "E"

Map of Bruneau Project. . . . . Exhibit "F"

- - - - -

DEPARTMENT OF THE INTERIOR

UNITED STATES RECLAMATION SERVICE

Burley, Idaho, April 10, 1920.

Chief of Construction,
U. S. Reclamation Service,
Denver, Colorado.

Dear Sir:

There is transmitted herewith a report of the Board of Engineers called to consider projects in the Snake River Valley, which may affect the proposed American Falls Reservoir. The conclusions of the Board are set out in detail in the body of the report, which may be briefly summarized as follows:

The Board convened at Burley, Idaho, on April 5 to consider matters referred to it by the Chief of Construction of the U. S. Reclamation Service, and related problems which subsequently developed. The studies of the Board have covered:

(a) Water supply of Snake River.

(b) The lands irrigable from Snake River.

(c) Storage capacity required for the utilization of the waters applicable to irrigation.

(d) The relation of the proposed American Falls reservoir to the storage problem.

(e) The substitution of power rights which will be destroyed at American Falls by the construction of American Falls Reservoir.

(f) Snelley Canal as proposed by Mr. Paul S. A. Bickel.

(g) The Bruneau project and its relation to the general irrigation program.

(h) Storage in Yellowstone Lake.

The board is of the opinion that all of the water of Snake River susceptible of economical diversion should be dedicated to irrigation. The lowest point on the river at which diversion is practicable in large amounts is Milner Dam. The unappropriated water of Snake River can be made available by the development of approximately 3,900,000 acre-feet of storage capacity. In addition to the draft already prevailing for the existing irrigation enterprises in the upper valley, there will be provided a draft of 5,720,000 acre-feet which will supply (a) supplementary rights for existing enterprises above American Falls Dam; (b) total present requirements including supplementary rights for all existing enterprises below American Falls Dam; (c) water necessary for the development of about 450,000 acres of new land.

The available water supply is not sufficient for the irrigation of all the land which can be reached from the river. New areas above American Falls amount to about 400,000 acres; areas below American Falls amount to

approximately a million acres. There is insufficient information available to pass upon the relative feasibility of various projects. It is pointed out however that extensive development above American Falls will preclude extensive development below American Falls and vice versa.

The American Falls reservoir will be essential to a complete development of the irrigation resources. In the plans for irrigation discussed in the report, which are used as illustrations only the storage requirement at American Falls reservoir would vary from 1,400,000 acre-feet to 4,800,000 acre-feet. Manifestly any storage not provided in American Falls reservoir must be provided in other sites. The Board recommends the early construction of the American Falls reservoir as a progressive step in the final development of irrigation resources. In the absence of any other definite plan, the present plan for development proposed by the Reclamation Service should be supported and advanced by all interests involved.

The construction of American Falls reservoir will destroy developed power to the amount of 6000 horse power, more or less and a partially developed site for a total

capacity of about 30,000 horse power. As a substitution for American Falls power, the board recommends the development of some suitable site to be subsequently determined, which will eliminate any loss of irrigation water.

The construction of American Falls reservoir involves no loss of power for irrigation pumping since the flow in the river during the irrigation season will be ample for all pumping requirements.

The Shelley Canal as proposed by Mr. Paul S. A. Bickel is not regarded as a practicable source of power for substitution at American Falls.

The Shelley Canal may be feasible as an irrigation enterprise for watering lands between Shelley and American Falls; information available on this point is not sufficient to form a basis for conclusion. For the irrigation of lands in the proposed Minidoka Pumping Project and lands to the westward thereof, the Shelley Canal is not considered feasible.

The unappropriated water supply of the Snake River is sufficient for the development of the Pruneau Project provided that development is undertaken prior to the inauguration of

other similar enterprises of large extent. If the Bruneau Project is initiated however, it will absorb a large portion of the unappropriated waters and will preclude the development of large projects in other portions of the river. The development of the Bruneau Project would not necessarily interfere with the supply of supplementary rights to existing enterprises and the development of the Minidoka Pumping Project. The Board expresses no opinion as to the feasibility of the Bruneau Project.

The Board makes no recommendation as to the feasibility of diverting water from Yellowstone Lake into the Snake River drainage.

Very truly yours,

J. N. McComb

Chairman, Board of Engineers

DEPARTMENT OF THE INTERIOR

UNITED STATES RECLAMATION SERVICE

Burley, Idaho, April 10, 1920

From: the Board of Engineers to consider projects in the Snake River Valley which may affect the proposed American Falls Reservoir

To: the Honorable D. W. Davis, Governor of Idaho, and the Chief of Construction of the U. S. Reclamtion Service.

1. In conformity with an understanding had between the Director of the U. S. Reclamation Service and the Governor of Idaho, a joint Board of Engineers was designated to consider projects in the Snake River Valley, particularly those affecting the proposed American Falls Reservoir.

2. Under date of March 30, 1920, the Chief of Construction of the U. S. Reclamation Service directed the designated Chairman of the Board as to the matters to be considered. Copy of this letter is attached hereto as Exhibit "A".

3. The instructions cover specifically the following points:

(1) The examination of a project proposed by Mr. I. B. Perrine contemplating a diversion near Shelley, Idaho, the canal line extending thence to the vicinity of American Falls, where the water carried during winter is to be turned back into the reservoir above the

American Falls dam for the purpose of producing power. By a proposed extension this canal could also cover the lands of the Minidoka Pumping Project and other lands to the westward thereof.

(2) The consideration of a proposal by Mr. Perrine for the Bruneau project.

(3) The consideration of the various proposals for power to replace the power developed and undeveloped now controlled by the Idaho Power Company at American Falls.

4. In addition to these specific instructions the Board was directed to consider any other matters which might be presented by the Governor of Idaho, or Project Manager Dibble, having a bearing on the construction of the American Falls Reservoir.

5. This board convened at Burley, Idaho, on April 5 with the following members present:

I. W. McConnell, Chairman
W. G. Swendsen, State Commissioner of Reclamation
E. B. Darlington, Chief Engineer, Twin Falls North Side Land and Water Co.
J. C. Wheelon, General Manager, Twin Falls Canal Co.
James Munn, Consulting Engineer, U. S. Reclamation Service
F. W. Hanna, Consulting Engineer " " "

6. At the first session, it was pointed out by Mr. Swendsen that the State officials believed the time had come for the formation of a definite plan for the

development of the remaining resources of the Snake River water supply on a broad and comprehensive basis which would insure to the state the maximum utility of the possibilities of the stream.

7. Mr. Paul S. A. Bickel presented a plan for the utilization of the waters which might be available for irrigation; said plan involving the construction of the American Falls reservoir; the Shelley Canal, with its extension to the Wood River country, and the irrigation of the Bruneau tract.

8. It became apparent from preliminary consideration of the subject that no one of the principal problems involved could be properly considered without taking into account its effect upon the general problem of the conservation of the waters of Snake River. The Board has therefore given consideration to the following questions:

(1) The total water supply available in the Snake River basin for irrigation.

(2) The quantity of storage required for the utilization of the water supply and the relation of that supply to the size of the American Falls Reservoir and other reservoirs which may be necessary.

(3) The power rights to be lost at American Falls thru the appropriation of all waters available for irrigation and the possible substitution by which such loss of power rights can be compensated.

(4) The Shelley Canal as proposed by Mr. Bickel.

(5) The various irrigation projects which can be developed in the Snake River Valley.

(6) Storage in Yellowstone Lake.

9. The Board spent two days in examination of the field conditions in connection with the Shelley Canal. The study of data available was then taken up at the Burley Office. On April 9th Governor Davis came to Burley and discussed the situation with the Board.

10. The Board has had access to a large number of reports and estimates and has had the advice of the officials of the Reclamation Service at Burley who have studied the problems involved for a number of years past. Most of the maps, tabulations, graphic curves, and other information introduced into this report as exhibits were obtained from the records of the Burley office, including reports by Mr. A. J. Wiley, or from Reports furnished by the State Engineer of Idaho, and from the report by Mr. Bickel in connection with his proposal for the Shelley Canal and the Bruneau project. Specific acknowledgment is made of valuable assistance rendered the Board by Project Manager Dibble, Engineer Banks, and Engineer Phelps.

11. The Board expresses the opinion that the greatest use of the water of Snake River will be found in the dedication of the entire flow of the stream to irrigation in so far as the water can be economically appropriated. The physical conditions surrounding the problem render it possible to divert from the stream at numerous points in its course, and with the requisite storage to utilize a very large percentage of all the waters originating in the watershed above Milner dam. It is demonstrated by the data available to the Board that the amount of water available in the river is the limiting factor. There is an excess of land for the amount of water which can probably be brought upon it. The net effect of this condition will be to dry up the river below Milner Dam during the irrigation season, also to as great an extent as possible below American Falls Reservoir, during the non-irrigation season. The waters flowing in the stream below Milner Dam are not susceptible of diversion to any considerable amount, and therefore become of primary use in connection with the production of power. The principle involved therefore is to secure as nearly as possible a total use of the waters for irrigation above Milner Dam, and to secure the greatest possible use for power below Milner Dam. To a moderate extent these

interests conflict with each other but fortunately on account of the large accretions to the stream below Milner Dam the power resource is restored at Upper Salmon Falls and the injury to that resource which would be susceptible of future development is relatively not very great.

AMERICAN FALLS RESERVOIR

12. The American Falls Reservoir is clearly a necessity for the maximum utilization of the waters of the Snake River. This point is generally conceded, and the efforts of all interests involved should be concentrated and directed towards the commencement of work upon this facility at the earliest possible date. The Reclamation Service now has under consideration a contract to be entered into by the various water users concerned, wherein these water users agree to provide funds for the early development of the reservoir. This plan, contemplating as it does the eventual completion of the reservoir to full capacity of approximately 3,000,000 acre-feet, offers a definite basis for early progress. In the absence of any other definite proposal looking to the same end, it is believed that the interests of all parties concerned will be best advanced by concentrating support behind the Reclamation Service proposal with a view to securing the early completion of the entire reservoir in order that this very essential facility may be available as rapidly as enterprises can be initiated to bring additional lands under cultivation.

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WATER RESOURCES

EXHIBIT 37

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, 1928"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

In District No. 36

1928

By G. Clyde Baldwin

To avoid unnecessary confusion, however, as well as because of the small quantities involved, it has only been tabulated on Plates V, VI and VII.

Actual storage available at the American Falls Reservoir when draft for the season began amounted to 1,711,760 acre-feet. The excess over the normal capacity of 1,700,000 acre-feet was credited to the reservoir gain and loss account and was not prorated to individual owner canals.

Segregation of stored water from normal flow at the outlet of the American Falls Reservoir was accomplished in exactly the same manner as that used in preparing the final data for the preceding year, (see pages 27-29 of the 1927 report) and these quantities, as listed herein, are identical with those contained in the 1928 report entitled "Segregation of Water Resources in the American Falls Basin" by Thos. R. Newell. His formula,

Normal Flow at Neeley = Normal Flow at Cloughs + 4/3 (measured gain Cloughs - Neeley) + 840 second-feet

gave consistent and apparently reasonable results throughout the 1928 range of reservoir stages.

RIVER LOSSES AND GAINS

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

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 38

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1962"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

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WATER DISTRIBUTION

AND HYDROMETRIC WORK

DISTRICT NO. 36

SNAKE RIVER, IDAHO

1962

Daily figures showing segregation of flow at the various river gaging stations and storage diversions by canals are shown on Plates 12, 12A and 13 for Snake River and Plate 21 for Henrys Fork.

The net total of stored water passing the Blackfoot gaging station during the irrigation season was 90,294 acre-feet. A good part of this occurred in September when releases at Palisades reservoir were kept higher than needed for irrigation demand in order to meet pumping demands on Palisades power output.

A number of canals were bothered with moss growth during the 1962 season. The Aberdeen canal reported an overall loss of 38.1% compared to 41.4% in 1961.

STORED WATER DELIVERIES

Reservoir Allotments

American Falls

Water available for allotment in American Falls Reservoir was computed as follows:

American Falls contents on June 6		1,730,000 acre-feet
Allotments:		
American Falls rights	1,700,000	acre-feet
U.S.Indian Service from 1961	7,606	" "
U.S.Bureau of Reclamation	*15,554	" "
	1,723,160	acre-feet

* To offset water guaranteed to Idaho Power Company from 1961 (31,253 a.f. less 15,699 a.f. used Nov. 16, 1961 to Feb. 12, 1962).

Jackson Lake

Jackson Lake filled to capacity on June 29. At that time it had stored 34,000 acre-feet adverse to normal flow rights. However, for period June 14 to July 4, over 53,000 acre-feet of normal flow was released from Jackson Lake, most of which could have been stored

EXHIBIT 39

Letter, Watermaster Lynn Crandall to
H.R. Stinson of the Bureau of Reclamation
(Aug. 2, 1952)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Idaho Falls, Idaho
Aug.2,1952.

—150
Reference 150

Mr. H.E.Stinson,
Bureau of Reclamation
Boise, Idaho.

Dear Mr. Stinson,-

In reply to yours of the 1st inst.;-

It was my intention that the Gooding Canal should be entitled to divert natural flow water during April provided the reservoir later filled but otherwise the April diversions would be charged as storage in accordance with the Secretarys present order.

In some years the reservoir has filled, then storage draft occured, and later more water became available for storage that in some years refilled the reservoir and in some years did not entirely refill it. The Gooding project would be entitled to natural flow for all of its diversions, up to 1,700 sec.ft., prior to the date when storage draft first began after the latest filling date each year. If the reservoir only partially refills after the first storage draft the Gooding Project gets as natural flow ½ of the first 1,700 sec.ft. of any water later available for the 1921 priority.

You can doubtless modify the language I suggested to make these matters clearer. The foregoing is the way we have operated under the present order.

Yours truly

Watermaster

CC; R.P.Parry
Ival Goslin.

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 40

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1938"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

WATER DISTRICT NO. 36

1938

By Lynn Crandall

Watermaster

The water supply during 1938 was adequate for irrigation needs and no crop losses due to water shortage were experienced in the District, although a few canals on Henrys Fork and tributaries would have drawn more water late in the summer if it had been available under their rights. Their needs however, were not great enough to induce them to rent additional storage of which ample supplies were available for rent at 12¢ per acre-foot.

American Falls Reservoir filled on March 30, 1938 and subsequently 1,310,000 acre-feet of surplus waters spilled to waste past Milner. The reservoir remained at or above its rated capacity of 1,700,000 acre-feet until July 12th. Jackson Lake filled to capacity on June 14th and remained full for a month before storage draft began.

Natural flow regulation began on July 11 (upper valley date) when rights of later priority than 1916 were cut off. On July 13 the so-called upper valley flood-water rights of 1916 priority were cut off. Cuts followed the dropping river stage until by Aug. 23, 1938 all 1891 rights were off. Subsequent rains and reduced demand permitted restoration of the 1891 rights which continued in effect until mid-September. A heavy demand for water in the upper valley late in September resulted in the Oct. 16, 1890 rights being cut on September 23, 1938 and remaining off until the end of the season.

Mild dry weather early in October was the cause for continued demand for water and it was necessary to continue release of natural flow from Jackson Lake and river regulation above Blackfoot until October 8, 1938 when rains occurred and the Jackson Lake gates were closed and regulation discontinued.

Canal	Jackson Lake right	Am. Falls right	Am. Falls lease	Total allotment
Smith		79	41	120
Kennedy	355			355
Idaho		26,986	12,602	39,588
Martin	1,500	2,250	1,050	4,800
New Swedon Dist.	5,000	28,528	14,711	48,239
Woodville		9,000	4,200	13,200
Snake River Valley	15,000	27,643	12,909	55,552
Blackfoot		15,033	7,020	22,053
Peoples	8,000	22,519	11,613	42,132
Aberdeen	42,685	41,333	29,306	113,324
Corbett		4,000	1,868	5,868
Trego		1,462	683	2,145
Minidoka Project	325,810	50,000	25,785	401,595
Milner Low Lift		34,113	17,592	51,705
Twin Falls Canal Co.	97,183	151,185	70,603	318,971
North Side Project	322,007	320,256	152,276	794,539
Gooding		400,000		400,000
Idaho Power Co.		45,000		45,000
Total	847,000	1,266,407	433,593	2,547,000

Both Jackson Lake and American Falls Reservoir rose to heights slightly above their rated capacities, but such extra water was discharged as natural flow and computed storage drafts did not begin until the reservoirs had dropped to their regular capacities of 847,000 and 1,700,000 acre-feet respectively.

In addition to the rights in Jackson Lake and American Falls, the Minidoka Project held 95,670 acre-feet in Lake Walcott when storage use began on July 13 and was credited with 40,000 acre-feet gain Neeley to Milner during the period of storage use July 13-Sept. 30. The Utah-Idaho Sugar Co. discharged 3,685 acre-feet from Emma Matilda and Two Ocean Lakes for use on the Osgood Project. The Kennedy ditch received 65 acre-feet as storage discharged from Market Lake Springs Sept. 1-12. The discharge from these springs during the balance of the season was delivered as natural flow.

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 41

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1942"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK
DISTRICT NO. 36
SNAKE RIVER, IDAHO
1942

The gain from Neeley to Milner is considered as stored water for convenience in tabulation. It is credited to the Minidoka Project on days when that Project is drawing stored water at a rate in excess of the gain.

There were about 10,800 acre-ft. of natural flow delivered to the Gooding Project June 3-4, 10-16, after storage draft on American Falls Reservoir began, in accordance with the instructions of the Commissioner of the U. S. Bureau of Reclamation dated April 6, 1936. These instructions provided a method of dividing any water available for the Mar. 30, 1921, priority between the American Falls Reservoir and the Gooding Project.

STORED WATER DELIVERIES

Allotments of Reservoir water were made as follows:

American Falls Allotment for 1942

No storage charges prior to June 2 as water was spilling past Milner to waste until then.

Reservoir contents June 2 - 1,716,890 acre-ft.

The excess of 16,890 acre-ft. over rated capacity was allotted pro rata to each owned and leased right.

Jackson Lake Allotment for 1942

No water was available for the Jackson Lake priority after the morning of June 28, at which time the Lake held 851,840 acre-ft.

Of this amount 40,680 acre-ft. represents the quantity measured at Jackson Lake, due American Falls Reservoir to replace water delivered therefrom to canals below Neeley to fill normal flow rights prior to the top right in Jackson Lake.

Canal	J. Lake right	Am. Falls owned right	Am. Falls lease	Total Allotment
Peoples	8,000	22,743	11,536	42,279
Aberdeen	42,685	41,743	56,571	140,999
Corbett	0	4,040	1,887	5,927
Trego	0	1,477	690	2,167
Minidoka Dist.	186,030	50,497	25,615	262,142
Burley Dist.	139,780	0	25,248	165,028
Milner Low Lift	0	34,452	16,089	50,541
Twin Falls Canal	88,670	152,687	20,199	261,556
No. Side Project	294,680	323,438	179,171	797,289
Gooding	0	403,974	0	403,974
Idaho Power Co.	0	45,447	0	45,447
Total	811,160	1,278,988	437,902	2,528,050

The foregoing figures do not include small amounts of American Falls Refill storage credited to four lower valley canals.

American Falls Refill 1942

Some water accumulated to the American Falls Reservoir right June 2-3, 9-15, amounting to 14,625 acre-ft. No water was available for its priority after June 15.

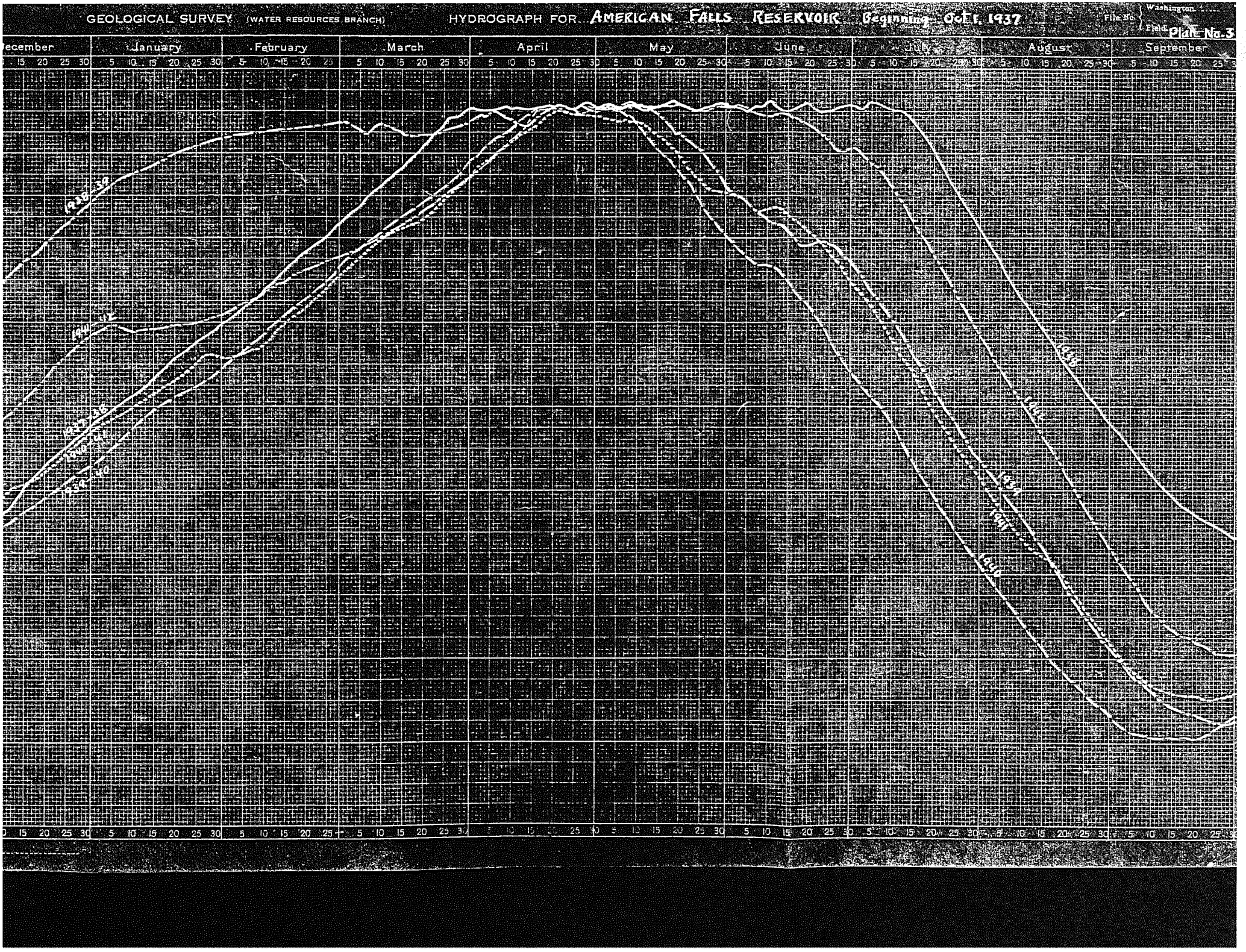
This refill water was divided among the various projects in proportion to their use of storage up to June 15 as follows:

Minidoka Project	1,523	acre-ft.
Gooding Project	12,074	"
North Side Project	420	"
Milner Low Lift	608	"
Total	14,625	"

Lake Walcott Allotment for 1942

Contents on June 2 were 100,370 acre-ft. which was credited to the Minidoka Project.

That Project was also credited with 35,800 acre-ft. gain Neeley to Milner on days it was drawing storage.


GEOLOGICAL SURVEY (WATER RESOURCES BRANCH)
HYDROGRAPH FOR AMERICAN FALLS RESERVOIR Beginning Oct. 1, 1937
File No. Washington
Plate No. 3
December
January
February
March
April
May
June
July
August
September

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 42

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1967"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION

AND HYDROMETRIC WORK

DISTRICT NO. 36

SNAKE RIVER, IDAHO

1968

average precipitation for nine representative stations for the water year ending September 30, 1968, was 19.21" compared to a normal of 15.32. Precipitation for May and June was 150% and 156% of normal, respectively. August precipitation was over 3 times the normal. River regulation was discontinued on September 28.

With the heavy precipitation in May and June and delayed snowmelt, there was sufficient normal flow to supply all needs for water through June 25. The Milner spill was cut off on June 21. During the October through July period about 980,000 acre-feet in excess of Idaho Power Company rights spilled to waste past Milner. All reservoir allotments were filled except Palisades which received a 95% allotment.

Storage deliveries started in the lower valley on June 25. The 1916 "floodwater" rights were cut off on July 8. The lowest cut in rights was on August 9 and 10 when all 1895 rights were cut off.

Total usable contents in the reservoir system on September 27 (American Falls time) was 2,722,000 acre-feet. This is 67% of active capacity and the second highest of record.

Discharge at the Minidoka Dam was cut below the 2,700 cfs power right for periods March 7-29 and April 2-13.

The Bureau of Reclamation continued studies on the proposed Lynn Crandall project. Test drilling was carried out at the Fremont damsite on Teton River.

Mrs. Charlotte Wood died on June 20 after 27 years of outstanding service in the Water District 36 office.

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EXHIBIT 43

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1968"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION

AND HYDROMETRIC WORK

DISTRICT NO. 36

SNAKE RIVER, IDAHO

1967

5. Reaffirmed support for the Lower Teton Reclamation Project.

Precipitation and runoff for 1967 were above normal. The average precipitation for nine representative stations for the water year ending September 30, 1967, was 17.22" compared to a normal of 15.48" and to 11.99" in 1966. Precipitation for June and July was 225% and 170% of normal, respectively. Demand for water continued into October and storage deliveries continued in the lower valley until October 8.

With the heavy precipitation in June and July and delayed snowmelt there was sufficient normal flow to supply all needs for water through July 11. The Milner spill was cut off on that date with all reservoirs full. During the October through July period about 185,000 acre-feet in excess of Idaho Power Company rights spilled to waste past Milner. This spill would have been much greater except for the fact that the snow melt was delayed until the heavy runoff could be diverted by canals instead of spilling to waste.

Storage deliveries started in the lower valley on July 12. The 1916 "floodwater" rights were cut off on July 17. The lowest cut in rights was on September 11-13 when the May 1, 1892 right of the Corbett Slough was cut off.

Total usable contents in the reservoir system on October 7 (American Falls time) was 2,109,000 acre-feet. This is 52% of active capacity and the second highest of record.

Discharge at the Minidoka Dam was cut below the 2,700 cfs power right for period October 16, 1966 to April 4, 1967.

The Bureau of Reclamation continued studies on the proposed Lynn Crandall project. Test drilling was carried out at the Fremont

Questions arise regarding the right of American Falls to store water after it has once filled. One point of view is that after the reservoir once fills it should not be permitted to store further water during that season. However, the reservoir storage rights are operated in the same order as decreed rights for canal diversions. During many years there is a period in the early spring when users in the lower valley are diverting more water than is entering American Falls reservoir. This occurs before the heavy snowmelt begins and at a time when storage is likely taking place in upper reservoirs. At these times American Falls is drawn down below its capacity. At such times water is being stored in Palisades or other reservoirs that is creditable to the American Falls right. Later in the season there is more than enough normal flow in the river to fill all rights earlier than the American Falls 1921 storage right. This reservoir is then either refilled physically or credited with the adverse storage in Palisades or other reservoirs. Here, again, the attempt is to preserve for American Falls reservoir the storage rights it was entitled to prior to the time of later reservoirs. While this reduces the amount of water available to Palisades users in many years it is in accordance with a proper administration of the decreed rights. During many of these same years, Palisades Reservoir has already been credited with American Falls water held over or adversely stored.

Further complications may be faced if an enlarged American Falls Reservoir becames a reality. With additional space available in the downstream reservoir, some of the established storage practices may be questioned. Should Palisades or other upstream reservoirs be permitted to adversely store American Falls water which would otherwise be available for storage in the enlarged space? Should these same reservoirs be allowed to hold over American Falls water and have it credited to their space when the present American Falls reservoir space fills? It appears to the writer that the above practices have established a right by use that should not be interfered with by an enlarged American Falls reservoir. A straightforward approach (and one that would be simple to administer) would be to allow an American Falls enlarged reservoir to be credited with only the water actually physically stored above the present 1,700,000 acre-foot capacity. However, this would not prevent the top rights from holding water over in the bottom space as long as it caused no loss of water to the earlier rights.

An enlarged American Falls Reservoir will require surveys to determine the new contents. This will make it possible to compute the amount of silting that has taken place during the life of the reservoir. Crandall[3] estimated that this might amount to as much as 2.5% of the original reservoir space.

Others[4] have noted that with an enlarged American Falls Reservoir there will likely be new land developed in the downstream area. This will result in a larger withdrawal of water each year from that reservoir. Under these new conditions it will be necessary to arrive at operating rules that will not permit upstream reservoirs to hold over and acquire title to storage that should go to the American Falls rights.

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 44

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1945"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK
DISTRICT NO. 36
SNAKE RIVER, IDAHO
1945

INTRODUCTION

At the annual watermaster election, held at Idaho Falls on March 5, 1945, Lynn Crandall was elected as watermaster and the following were elected as members of the Committee of Nine:

E. H. Neal, Chairman, John E. Kelley, Vice Chairman, Joe Andreason, H. L. Crawford, W. A. Heiss, Eph Ricks, Hyrum Severson, N. V. Sharp, and A. E. Stanger.

Advisory members: S. R. Marean and L. W. Hastings.
John Lee, Secretary.

The same schedule of stored water transmission losses in use during recent years was again approved by the waterusers: 2½% Moran to Heise; 4.4% Heise to Lorenzo; 0.5% Lorenzo to Shelley; 6% Shelley to Blackfoot; 4% Henrys Lake to Island Park; 2.0% Island Park to Warm River; 0.5% Warm River to Ashton.

The waterusers approved and adopted a proposed budget amounting to $29,168.98 to cover estimated expenses for the following year, and they authorized the watermaster to apportion actual expenses among the various users at the close of the 1945 irrigation season in proportion to amount of water diverted. The period of measurement of diversions for this purpose was to be considered as beginning April 15 in the lower valley, May 1 in upper valley, and May 15 in the headwater areas, and ending September 30 in all cases.

At the time of the annual meeting the snow supply was about 90% of normal for that time of year. May and June precipitation proved to be above normal and an ample water supply was available for the 1945 season. During the year ending September 30, 1945, there were about 988,000 acre-feet that spilled to waste past Milner in excess of Idaho Power Company rights. All reservoirs filled to capacity and storage use

did not begin until July 9, when draft started at American Falls. Draft on the upper reservoirs did not begin until later dates.

After the June rains there was plenty of stored water available for rent to anyone needing same and no crop losses occurred in 1945 due to water shortages. Storage deliveries in the upper valley ended September 19 due to rains, but some storage was delivered at Milner up to September 30. On September 30, 1945, the reservoirs contained 1,718,685 acre-feet or 60% of capacity, compared to 36% a year previous.

Total storage diversions in 1945 amounted to 1,237,942 acre-feet. A striking feature to anyone long familiar with irrigation on Snake River is the large amount of stored water now being used even in years of good runoff. Potatoes, beans, and sugar beets are the crops bringing the largest cash returns to the farmer so he operates to produce the maximum acreage of these crops. They all require heavy irrigation after the floodwaters are gone and maintenance of uniform moisture content in the soil, hence the heavy draft on stored water. The Aberdeen Springfield project is typical of most upper valley projects. Twenty-five years ago 5% of the acreage on that project was in potatoes. In 1945 this had risen to 32%. The depletion of soil fertility is currently being met by the application of commercial fertilizers and this will doubtless continue at an even greater rate in the future. It is, however, possible that with the passage of time the production and feeding of more livestock will be found necessary to maintain the soil in condition to permanently produce satisfactory yields of crops.

The Bureau of Reclamation established an office at Idaho Falls in charge of I. D. Jerman and resumed pre-construction investigations at

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EXHIBIT 45

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1941"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK
DISTRICT NO. 36
SNAKE RIVER, IDAHO
1941

Some water accumulated to American Falls Reservoir credit at intervals between April 23, when storage draft began, and June 12. This was computed and allotted as follows:

Allotment of American Falls refill
April 23 to June 12, 1941

June 12, American Falls		1,474,040 acre-ft.
Lake Walcott		94,950 "
Clough equivalent of adverse upstream storage prior to June 12		116,564 acre-ft.
Storage used April 23 to June 12		
Gooding		90,543 "
Minidoka	*	5,109 "
No. Side Project		19,753 "
Twin Falls "		6,545 "
Milner Low Lift		8,134 "
Total		1,815,638 "
Subtract original allotment of American Falls and Lake Walcott April 23		1,797,720 "
American Falls refill April 23 to June 12		17,918 "

* 19,259 minus 14,150 drawn from Walcott before refilling Walcott.

The refill April 23 to June 12 was proportioned among the canals who had used storage during that period in proportion to storage used as follows:

Gooding	12,472 acre-ft.
Minidoka	704 "
No. Side Project	2,720 "
Twin Falls Project	902 "
Milner Low Lift	1,120 "
Total	17,918 "

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WATER RESOURCES

EXHIBIT 46

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1937"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

WATER DISTRICT NO. 36

1937

By Lynn Crandall

Watermaster

The annual run-off at Moran and Neeley during years of record is shown on plates 4 and 5.

Surplus water spilled past Milner during the year in excess of the Idaho Power Co. regular rights amounted to 382,000 acre-feet of which about 150,000 acre-feet could have been retained at Island Park and Grassy Lake if those reservoirs had been completed.

The maximum daily discharge at Heise during 1937 was 17,400 second-feet compared to 28,600 second-feet in 1936. River flows in 1937 were not high enough to cause any appreciable flood damage.

TRANSFERS AND EXCHANGES

The following permanent transfers were made during the year after advertising and hearing before the Commissioner of Reclamation as provided by the Idaho Statutes.

Transfer No. 577.- 0.84 sec. ft. June 1, 1885 and 1.36 sec.-ft. June 1, 1888 from East Labelle Canal to Farmers Friend Canal.

Transfer No. 579.- 1.16 sec.-ft. June 1, 1886 from Long Island Canal to Nelson Ditch.

Transfer No. 581.- 1.69 sec.-ft. June 1, 1879 from Woodmansee-Johnson canal to Teton Island Feeder Canal.

Transfer No. 583.- 3.0 sec.-ft. June 1, 1883 from Nielsen-Hansen ditch to New Sweden Canals.

Natural flow rights were exchanged for American Falls storage owned and rented by various canals on Henrys Fork and tributaries as this is the only way that such water can be made available. During periods of shortage a few temporary transfers for short periods between neighboring canals, particularly in the Henrys Fork area, were permitted where it was apparent that no injuries to other users would result. Several upper valley canals were allowed to cut dry at times

Reservoir contents June 8, less 1,750 due Lake Walcott	1,671,350	ac.-ft.
American Falls equivalent of adverse storage at Jackson Lake prior to June 8. This represents water drawn from Am. Falls before June 8 to fill rights that are prior to Jackson Lake storage right.	13,500	" "
Storage draft by canals up to June 8 (Am. Falls date)		
Minidoka Project	1,110	" "
Milner Low Lift	2,030	" "
N. S. Canal Co.	4,650	" "
Twin Falls Canal Co.	3,590	" "
Gooding Project	28,400	" "
Total for allotment	1,724,630	" "

The 24,630 acre-feet in excess of reservoir capacity was alloted to the canals drawing storage prior to June 8 in proportion to space owned and leased, the extra allotment to any individual company, however, not exceeding its storage draft up to June 8.

Project	1937 Space at American Falls	Extra allotment
Minidoka Project	75,785 acre-feet	1,110 acre-feet
Milner Low Lift	51,705 "	1,750 "
N. S. Project	472,532 "	4,650 "
T.F. Canal Co.	221,788 "	3,590 "
Gooding Project	400,000 "	13,530 "
Total	1,221,810 "	24,630 "

The complete allotment of the American Falls Reservoir water was as follows:

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EXHIBIT 47

Excepts, Minidoka Project "Annual Project History – Calendar Year 1944"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

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1944

UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION
MINIDOKA PROJECT

* * *

ANNUAL PROJECT HISTORY

* * *

Report of Construction,
Operation and Maintenance

Including

Construction of Laterals, Snake River Slope of
Gooding Division,
Operation and Maintenance of
Minidoka Project and Upper Snake River Project

* * *

Vol. 38

* * *

Calendar Year 1944
Burley, Idaho

JRP008658

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*
* *
*

American Falls and Lake Walcott reservoirs, and of the Main South Side Canal, the generation and distribution of electrical energy from the Minidoka power plant and transmission system, and the maintenance work in connection with these features. Operation and maintenance was accomplished by Government forces, irrigation districts, and by cooperation with the Department of Reclamation of the State of Idaho in distributing water from Snake River.

Jackson Lake reservoir filled to capacity on May 23, and remained full until storage releases began on July 11. Releases were discontinued on September 19.

American Falls reservoir filled on March 16, with storage releases beginning on May 16. The reservoir refilled on June 8, cancelling previous storage charges. Storage releases began again on July 4, and continued until September 23.

Island Park reservoir filled on January 4 and remained full above the spillway crest until July 26. Storage releases were discontinued on September 17, after which the outlet gates were operated to serve only natural flow demands.

Grassy Lake reservoir filled to capacity on March 9. Storage releases were made from July 13 to September 2.

Holdover storage in the various reservoirs, and the amount impounded at the end of the year were as follows:

Reservoir	Holdover at end of the Irrigation Season, A.Ft.		Storage at the end of the year, in acre feet	
	10/1/44	1943	1944	1943
Jackson Lake	300,990	650,340	357,590	656,150
Grassy Lake	6,417	14,748	7,879	14,872
Island Park	52,010	84,050	88,405	123,250
American Falls	532,690	896,260	1,114,660	1,277,650
Lake Walcott	77,340	42,920	68,530	39,130
Totals	969,447	1,688,318	1,637,064	2,111,052

The irrigation demand during the season of 1944 was less than 1943, with diversions into the various canals as follows:

	Acre Feet	
	1944	1943
Minidoka North Side Canal	426,330	450,850
Minidoka South Side Canal	303,790	351,970
Milner-Gooding Canal (Gooding Div.)	391,550	367,830
Fremont-Madison Diversions (From Henry's Fork, Fall and Teton Rivers)	805,240	899,780

8. Summary of Reports of Boards of Engineers. None.

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DEPARTMENT OF
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EXHIBIT 48

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1954"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
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01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION

AND HYDROMETRIC WORK

DISTRICT NO. 36

SNAKE RIVER, IDAHO

1954

filling of the reservoir. All tabulations and storage charges shown in this report relate to the period July 8 to September 30.

One of the valuable assets connected with American Falls storage rights is the enlarged annual use in many years that results from drawing storage if needed at times during May and June and then later having a full storage right if the reservoir refills, to use after final refilling. This is a prior right to Palisades reservoir and after that reservoir is completed, the river operation should be so conducted and storage allocations so made that American Falls reservoir owners will enjoy the privilege of refilling their right to the same extent that they could have done prior to the construction of the Palisades reservoir.

The following tabulation shows a comparison of annual run-off for the year ending September 30, 1954, with April 1 estimates by the Weather Bureau and the Soil Conservation Service (Snow Surveys):

Station	Estimated run-off (acre-feet)	Actual run-off (acre-feet)	% Variation of estimated from actual run-off
Snake River at Moran	1,050,000	1,182,000	-11%
Snake River near Heise	5,440,000	5,078,000	+ 7%
Snake River near Shelley	4,250,000	3,952,000	+ 7%
Snake River near Blackfoot	3,290,000	2,916,000	+13%
Snake River near Neeley	5,680,000	4,853,000	+17%
Snake River near Minidoka	4,730,000	4,065,000	+16%
Henrys Fork near Rexburg	1,300,000	1,272,000	+ 2%
Fall River near Squirrel	505,000	586,000	-14%
Teton River near St. Anthony	510,000	505,000	+ 1%

The above estimates, in most cases, show a greater variation from the actual run-off than those made during the preceding year.

Reservoir holdovers on September 30 during each of the past ten years are shown in the following tabulation:

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EXHIBIT 49

Letter, from R. Keith Higginson, State Reclamation Engineer,
to Art Larsen, Wastermaster, Water District No. 36
(Mar. 6, 1970)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
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01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
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01-10043A, 01-10043E, 01-10191,
and 01-10389

DON SAMUELSON
GOVERNOR

R. KEITH HIGGINSON
State Reclamation Engineer

STATE OF IDAHO

DEPARTMENT OF RECLAMATION
STATEHOUSE — ANNEX 2
BOISE, IDAHO 83707

March 6, 1970

Mr. Art Larsen, Watermaster
Water District No. 36
P. O. Box 697
Idaho Falls, Idaho 83401

Dear Art:

You have recently asked for direction concerning the storage rights in American Falls Reservoir.

I have interpreted the 1968 Supplemental Adjudication - Snake River entered on July 10, 1968, as providing that storage can be made in American Falls Reservoir whenever water is available for Water License No. 15134, with priority date of March 30, 1921. This interpretation is based on the following language of Page 5 of the supplemental decree.

> "Water available at American Falls Reservoir for the March 30, 1921 priority, under Water License No. 15134, other than that to be available to American Falls Reservoir District No. 2 as above provided, to be available for storage in American Falls Reservoir."

Holding of water in the upstream reservoirs with credit to downstream storage rights is good water conservation practice, and it should be continued for the benefit of all water users in the Upper Snake River Basin. However, any time American Falls physically fills, upstream credit must be voided. At no time should the total American Falls storage, including credits, exceed the storage capacity of 1,700,000 acre feet.

Once filled each season, American Falls Reservoir should not be allowed to refill at the expense of junior users, except for the storage right provided under Water License No. 15134. Once American Falls Reservoir has filled either physically or with upstream credits, storage should be restricted subject to filling all junior rights. Therefore, the practice

IOAG0001593

of filling American Falls Reservoir with a subsequent drawdown and then calling on water in other reservoirs to refill American Falls, should not be allowed to continue.

If you have any questions regarding this or other matters, please contact me.

Very truly yours,

R. KEITH HIGGINSON
State Reclamation Engineer

RKH:mjl

March 6, 1970

COPY

Mr. Art Larsen, Watermaster
Water District No. 36
P. O. Box 697
Idaho Falls, Idaho 83401

Dear Art:

You have recently asked for direction concerning the storage rights in American Falls Reservoir.

I have interpreted the 1968 Supplemental Adjudication - Snake River entered on July 10, 1968, as providing that storage can be made in American Falls Reservoir whenever water is available for Water License No. 15134, with priority date of March 30, 1921. This interpretation is based on the following language of Page 5 of the supplemental decree.

> "Water available at American Falls Reservoir for the March 30, 1921 priority, under Water License No. 15134, other than that to be available to American Falls Reservoir District No. 2 as above provided, to be available for storage in American Falls Reservoir."

Holding of water in the upstream reservoirs with credit to downstream storage rights is good water conservation practice, and it should be continued for the benefit of all water users in the Upper Snake River Basin. However, any time American Falls physically fills, upstream credit must be voided. At no time should the total American Falls storage, including credits, exceed the storage capacity of 1,700,000 acre feet.

Once filled each season, American Falls Reservoir should not be allowed to refill at the expense of junior users, except for the storage right provided under Water License No. 15134. Once American Falls Reservoir has filled either physically or with upstream credits, storage should be restricted subject to filling all junior rights. Therefore, the practice

of filling American Falls Reservoir with a subsequent drawdown and then calling on water in other reservoirs to refill American Falls, should not be allowed to continue.

If you have any questions regarding this or other matters, please contact me.

Very truly yours,

R. KEITH HIGGINSON
State Reclamation Engineer

RKH:mjl

COPY

EXHIBIT 50

Excerpts, *Supplemental Decree, Burley Irr. Dist. v. Eagle*
(Idaho 5th Jud. Dist., Jul. 10, 1968), with cover letter

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

01-H

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT FOR THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS.

BURLEY IRRIGATION DISTRICT, et al,

Plaintiffs,

vs.

HENRY EAGLE, Watermaster, Water District No. 36, State of Idaho,

Defendant.

SUPPLEMENTAL DECREE

DISTRICT COURT
Fifth Judicial District
County of Twin Falls, State of Idaho
FILED: JUL 10 1968
By H. A. LANCASTER, Clerk
Deputy Clerk

This matter having come on regularly before the Court and the Court having made and entered its Findings of Fact and Conclusions of Law herein directing that Decree be entered accordingly and good cause appearing therefor,

IT IS HEREBY ORDERED, ADJUDGED AND DECREED as follows:

1. That the rights hereinafter decreed shall be supplemental to the decrees entered in the cases of Woodville Canal Co. v. Clark & Edwards Canal & Irrigation Company, et al, in the District Court of the United States for the District of Idaho, Eastern Division, on June 25, 1928, Twin Falls Canal Company v. Charles N. Foster, et al, in the District Court of the Fifth Judicial District of the State of Idaho, in and for the County of Twin Falls, on June 20, 1913, Rexburg Irrigation Company, et al. v. Teton Irrigation Canal Company, et al, in the District Court of the Sixth Judicial District of the State of Idaho, in and for the County of Fremont, on December 16, 1910, and the Decrees and the Findings of Fact and Conclusions of Law upon which they are based are binding upon all plaintiffs herein.

2. That the parties hereinafter named have the right to divert and use, for irrigation and other purposes, the waters of the Snake River, in the amounts and with the priority dates listed, which water shall be diverted at the point and be appurtenant to the lands described herein:

01 0001 A. Twin Falls Canal Company.

~~01 1157~~ 600 cubic feet per second (being the right recognized in paragraph

MAIL

35573

01 0006 ✓

C. American Falls Reservoir District No. 2.

The right to divert as natural flow during each irrigation season under water license No. 15134, having a March 30, 1921, priority, as follows: From May 1 of each irrigation season continuing during that season so long as there is natural flow available for that priority, the first 1,700 cubic feet per second of flow to be available one-half (1/2) to American Falls Reservoir District No. 2 and one-half (1/2) to American Falls Reservoir, except that in any year in which American Falls Reservoir is full to capacity on April 30 or fills after that date, taking into account any water that may be temporarily stored to its credit in upstream reservoirs, all water diverted by American Falls Reservoir District No. 2 within the maximum of 1,700 cubic feet per second during the year prior to the initial storage draft on American Falls Reservoir after the reservoir finally fills in that year shall be considered as natural flow under water license No. 15134. Nothing herein shall prevent American Falls Reservoir District No. 2 from diverting water under said license prior to May 1 of a given irrigation season but all such diversions shall be charged as storage in the event the reservoir is not full on April 30 of that season or does not fill after April 30 of that season.

Water available at American Falls Reservoir for the March 30, 1921, priority, under water license No. 15134, other than that to be available to American Falls Reservoir District No. 2 as above provided, to be available for storage in American Falls Reservoir.

Point of Diversion

At Milner Dam on the North side of Snake River (at the Southwest corner of the Northwest Quarter (on the section line), Section 25, Township 10 South, Range 21, E.B.M.)

Lands to Which Appurtenant

Township 2 South, Range 18 East, Boise Meridian:
Sections 28 through 33.

Township 3 South, Range 18 East, Boise Meridian:
Sections 14, 15, 22, 23, 25, and 36.

Township 3 South, Range 19 East, Boise Meridian:
Sections 14 through 27, 30, 31, 35, and 36.

4. That the contracts entered into between various of the parties Plaintiff and the United States of America, Bureau of Reclamation, as the same have been amended and modified, in connection with the Palisades project and other projects, were intended to be, and are, binding upon all persons claiming rights to the use of the waters of the Snake River and its tributaries, above Milner Dam, and constitute a common plan for the administration of the Snake River.

5. That the following provisions of the contracts as amended, which provisions are common to each amended contract entered into between each party thereto, and the United States of America, Bureau of Reclamation, are hereby ratified, confirmed and approved:

(a) The provisions relating to "Saving of Winter Water; Special Storage Right". A copy of a typical example of such a common paragraph is attached hereto as Exhibit A and by this reference made a part hereof as though set out in full herein;

(b) The provisions relating to "Permanent Exchange of the American Falls and Jackson Lake Storage Rights and Redifinition of Storage Rights". A copy of a typical example of such a common paragraph is attached hereto as Exhibit B and by this reference made a part hereof as though set out in full herein;

(c) The provisions relating to "Temporary Storage and Exchange of Water; Release of Jackson Lake and Palisades for Power Production". A copy of a typical example of such a common paragraph is attached hereto as Exhibit C and by this reference made a part hereof as though set out in full herein.

(d) The provisions relating to "Priority of Certain Existing and Future Water Rights". A copy of a typical example of such a common paragraph is attached hereto as Exhibit D and by this reference made a part hereof as though set out in full herein.

6. That the pertinent paragraphs of the contract entered into by the United States of America, Bureau of Reclamation, and the Minidoka Irrigation District, the contents of which paragraphs were confirmed by all other parties Plaintiff in amendatory and supplemental contracts, a copy of which pertinent paragraphs is attached hereto as Exhibit E and by this reference made a part hereof as though set out in full herein, is hereby ratified, confirmed and approved.

7. That the Memorandum of Agreement between the Bureau of Reclamation and the Bureau of Indian Affairs, a copy of the pertinent provisions of which is attached hereto as Exhibit F and by this reference made a part hereof as though set out in full herein, is hereby ratified, confirmed and Approved.

Done this 10th day of July, 1968.

S/ Theron L. Ward
District Judge

State of Idaho
County of Twin Falls } ss.

I hereby certify the foregoing to be a full, true and correct copy of the original on file in the above entitled action.

H. A. LANCASTER
Clerk of the District Court

Deputy

EXHIBIT "B"

Excerpt from United States Department of the Interior, Bureau of Reclamation, Minidoka and Palisades Projects, Idaho, Contract No. 14-06-W-28 with the North Side Canal Company, Ltd., prior to the execution of the amendatory and supplemental provisions which recognize the rights of the Minidoka Irrigation District as more particularly set out in Exhibit "E" hereto.

Provisions Relating to Exchange and Redefinition of Existing American Falls and Jackson Lake Storage Rights; Winter Power Operations at the Minidoka Powerplant

(Articles 19 through 24)

Permanent Exchange of American Falls and Jackson Lake Storage Rights

19. The United States, as of the date of this contract, operates and maintains for the benefit of lands in the lower valley served by the South Side Pumping and Gravity divisions of the Minidoka Project and by the Company the following capacities, respectively, in Jackson Lake Reservoir below elevation 6752:

Minidoka Project	325,810 acre-feet
Company	10,000 acre-feet
Total	335,810 acre-feet

Beginning October 1, 1952, there will be operated and maintained in Jackson Lake Reservoir, in lieu of the latter rights, the upper valley exchanged space as defined in article 20, and there will be made

available to the Company fifty-nine hundredths per cent (0.59%) of the active capacity of American Falls Reservoir (being 10,000 acre-feet in terms of a total active capacity of 1,700,000 acre-feet), this comprising part of the lower valley exchanged space as defined in article 20.

Definition of Upper Valley Exchanged Space; Guarantee in Event Lower Valley Exchanged Space Fails to Fill

20. It is anticipated that various upper valley holders of storage rights in American Falls Reservoir will have acquired in lieu of those rights seventy-six and seven tenths per cent (76.7%) of the total active capacity in Jackson Lake Reservoir as of October 1, 1952, these rights in Jackson Lake Reservoir being hereinafter called the upper valley exchanged space; and nineteen and seventy-five hundredths per cent (19.75%) of the active space in American Falls Reservoir will be held for the South Side Pumping and Gravity divisions of the Minidoka Project (nineteen and sixteen hundredths per cent (19.16%)) and the Company (fifty-nine hundredths per cent (0.59%)), these rights being hereinafter called the lower valley exchanged space. The seventy-six and seven tenths per cent (76.7%) in Jackson Lake and the nineteen and seventy-five hundredths per cent (19.75%) in American Falls shall, so long as the respective total active capacities are not less than 847,000 and 1,700,000 acre-feet, be treated as the equivalent of 335,810 acre-feet. The latter figure may, however, be adjusted from time to time by agreement between the Secretary and the Advisory Committee whenever there are determinations that the active capacities are other than

above stated. Beginning with the 1952-1953 storage season, there shall be a determination, at the end of each storage season in which the lower valley exchanged space fails to fill, taking carryover storage into account, (1) of the amount by which the American Falls storable inflow to which the lower valley exchanged space was entitled during that season failed to fill that space; and (2) of the amount, if any, by which the Jackson Lake storable inflow to which the upper valley exchanged space was entitled during that season failed to fill that exchanged space. If the amount under (1) exceeds that under (2), there shall be credited to the lower valley exchanged space and charged to the upper valley exchanged space an amount of stored water equal to the difference, but not in excess of the amount required to fill the lower valley exchanged space as of the end of that storage season. The determinations under this article shall be made by a committee of three comprising the state watermaster of District No. 36, a representative to be selected jointly by the Burley and Minidoka irrigation districts and the Company, and the officer of the United States in charge of the Minidoka Project.

Redefinition of Company's Jackson Lake Storage Rights

21. (a) The United States will operate and maintain Jackson Lake Reservoir and, beginning October 1, 1952, will make available to the Company stored water accruing to seventy-six and two thousand four hundred ninety-nine ten thousandths per cent (76.2499%) (312,007 acre-feet of present capacity) of the capacity in the reservoir above

elevation 6752 and will operate the entire reservoir in accordance with the following criteria:

> The entire reservoir will be operated so as to hold over, in any space available in the reservoir, from one irrigation season to the next for use in that next season, stored water to which any holder of space in the reservoir is entitled, but the total amount of stored water which will be held for the use of any holder of space during any irrigation season shall not exceed the space available to that holder. The United States shall, however, in its operation of the reservoir, have the right, after consultation with the Advisory Committee, to lower the water surface elevation in Jackson Lake in each storage season in order to avoid damage to the dam during winter weather and to provide incidental flood control, but, except in cases of operation and maintenance emergencies, such release of water shall not result in loss of storable water in that storage season. If losses do result, these shall be prorated equally over all space in the reservoir and shall be charged against stored water including that, if any, carried over from prior irrigation seasons. Determination of the relative rights of the various holders of space in the reservoir to reservoir inflow during each storage season shall, however, continue to be on the basis of the difference in priorities for the storage of water held by

EXHIBIT "D"

Excerpt from United States Department of the Interior, Bureau of Reclamation, Minidoka and Palisades Projects, Idaho, Contract No. 14-06-W-59 with the American Falls Reservoir District.

Priority of Certain Existing and Future Water Rights

28. (a) In connection with Island Park Reservoir, located on the North Fork (Henrys Fork) of Snake River, the United States holds water license No. R-590, 21-2156 with a priority date of March 14, 1935, and license No. R-686, 21-2157 with a priority date of June 12, 1940. Notwithstanding the later priority of license No. R-686, 21-2157 the District hereby agrees that all storage rights held by the United States in connection with Island Park Reservoir may be treated as having the same priority as rights under license No. R-590.

(b) In connection with Idaho Permit No. 15134, 01-2040 a direct diversion permit with a priority date of March 30, 1921, held in connection with American Falls Reservoir, the United States may contract with American Falls Reservoir District No. 2 to recognize the right of that district to have water license No. 15134 exercised substantially as follows:

American Falls Reservoir District No. 2 to have the right to divert as natural flow during each irrigation season under water license No. 15134, having a March 30, 1921 priority, as follows: From May 1 of each irrigation season continuing during that season so long as there is natural flow available for that priority, the first 1,700 cubic feet per second of flow to be available one-half (1/2) to American Falls Reservoir District No. 2 and one-half (1/2) to American Falls Reservoir, except that in any year in which American Falls Reservoir is full to capacity on April 30 or fills after that date, taking

into account any water that may be temporarily stored to its credit in upstream reservoirs, all water diverted by American Falls Reservoir District No. 2 within the maximum of 1,700 cubic feet per second during the year prior to the initial storage draft on American Falls Reservoir after the reservoir finally fills in that year shall be considered as natural flow under water license No. 15134. Nothing herein shall prevent American Falls Reservoir District No. 2 from diverting water under said license prior to May 1 of a given irrigation season but all such diversions shall be charged as storage in the event the reservoir is not full on April 30 of that season or does not fill after April 30 of that season.

Water available at American Falls Reservoir for the March 30, 1921 priority under water license No. 15134, other than that to be available to American Falls Reservoir District No. 2 as above provided, to be available for storage in American Falls Reservoir.

And the District agrees that it will not oppose an adjudication of a natural flow right of the waters of the Snake River for the benefit of American Falls Reservoir District No. 2 consistent with the foregoing criteria. The contract by the United States with American Falls Reservoir District No. 2 shall be on the condition, however, that that district assume its proportionate share of the obligation for the cost of replacement power under the provisions of article 17. When such contract has become operative, the

United States shall make application to the State of Idaho for amendment of water permit No. 15134 and the issuance thereunder with a priority date of March 30, 1921, requiring that the remainder of the right under the permit, 6,300 second-feet, to the extent such right remains outstanding, be used for storage in American Falls Reservoir, such right, however, if issued to the United States not to carry voting privileges in water users meetings under the laws of the State of Idaho. Such application shall, however, leave unaffected water license No. R-269 having a priority dated March 30, 1921.

(c) If the United States, under the Federal Reclamation Laws, hereafter constructs storage facilities on the Snake River or its tributaries above Milner Dam in addition to those now constructed or authorized to be constructed to provide water for irrigation purposes, the District hereby agrees that, notwithstanding the establishment of a storage right for such additional facilities with a priority subsequent to that assigned to Palisades Dam and Reservoir, the United States may hereafter contract with water users organizations which then have storage rights in Palisades Reservoir, to operate not to exceed 300,000 acre-feet of such capacity for the storage of water for irrigation for the benefit of such organizations as though that capacity had a storage right of identical priority with that held for Palisades Dam and Reservoir.

Protection of Water Rights

29. In case any dispute arises as to the character, extent, priority or validity of any of the storage rights held in the name of the United

PARRY, ROBERTSON, DALY & LARSON
LAWYERS
FIDELITY BANK BUILDING
P. O. BOX 525
TWIN FALLS, IDAHO 83301

TELEPHONE
(208) 733-3722

R. P. PARRY
T. M. ROBERTSON
JOHN H. DALY
BERT LARSON
C. G. McINTYRE
JOHN R. COLEMAN
THOMAS G. NELSON
JOHN A. ROSHOLT
FRED D. DECKER
CRAIG H. NEILSEN

July 18, 1968

RECEIVED
JUL 19 1968
Department of Reclamation

Mr. R. Keith Higginson
State Reclamation Engineer
State House - Annex 2
Boise, Idaho 83707

Re: Supplemental Decree

Dear Keith:

Enclosed are certified copies of the Findings of Fact and Conclusions of Law and the Supplemental Decree as entered in the Fifth District Court in and for the County of Twin Falls on July 10, 1968.

In reading through the Code, I have questions about the procedure to be followed henceforth because of the provisions of Idaho Code §42-1404. I am uncertain as to whether or not we should proceed to have the Findings of Fact and Conclusions of Law as well as the Supplemental Decree put in printed form for distribution or whether this section provides that your office should have responsibility for accomplishing said printing.

In any event, the section does provide that the expense shall be borne by the water users. The statute appears to attempt to provide a network whereby such expense can be collected through the water district. I suppose in fairness, the expense of the publication of these findings and this decree should be charged to the clients represented by this office, Cecil Hobdey, Adonis Nielson, and Roger Ling. We anticipate that the upper valley action will reach a like conclusion in the near future and perhaps the expense of the publication of their final documents should be their responsibility.

I am writing primarily to seek your counsel on this matter since this office could probably have the same printed if it were in a form acceptable to you and include the costs together with the other costs that have been advanced during the course of these proceedings. If this is to be your suggestion, I would also request that you indicate the

number of copies you think should be published so as to get copies to those people who are concerned.

Although I am not certain that this provision applies to supplemental decrees, it would appear that in a case involving rights of this magnitude that publication would be advisable and more convenient than attempting to make copies of the same by some photostatic process.

I would appreciate your remarks at your early convenience and feel obligated to advise you that the Women's Golf Association at the Blue Lakes Country Club has informed me that they have no more tournaments scheduled for the summer. I'll see if I can generate some additional significant water problems for the Twin Falls area.

Thanks, Keith, for your continuing cooperation.

Sincerely,

JOHN

JOHN A. ROSHOLT

JAR:dp

Enclosures

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 51

Excepts, "Water Distribution And Hydrometric Work,
District No. 36, Snake River, Idaho, 1978"

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

WATER DISTRIBUTION AND HYDROMETRIC WORK

DISTRICT NO. 01

SNAKE RIVER, IDAHO

1978

INTRODUCTION

In 1880, when the first water was diverted from the Snake River for the lands now under the Long Island Canal near Menan, it seemed that the Snake River could provide an inexhaustible supply of water for the Snake River Valley.

However, as further development of the Snake River and its tributaries took place it became apparent that the Snake River would not always supply every demand, as was witnessed in 1905 when the Snake River was dry for a distance of ten miles in the vicinity of Blackfoot. As a consequence of this first major shortage, a lawsuit was initiated to adjudicate the water rights on the Snake River above Blackfoot. This culminated in 1910 with what is commonly known as the Rexburg Decree. Three years later the Foster Decree adjudicating the lower valley rights was handed down.

In 1919, a water shortage resulted in serious crop losses from Ashton to King Hill. In an attempt to cope with this drought, a committee of nine men representing the irrigation systems throughout the basin jointly requested the Commissioner of Reclamation to restructure the water district into a more permanent arrangement. As a result of this request and the impending water shortage, the water district office was joined through a cooperative arrangement to a new office of the United States Geological Survey with the engineer in charge also serving as watermaster. The shortage of 1919 also spurred the United States Government to make a filing in 1921 to construct the American Falls Reservoir.

The next major shortages on the Upper Snake occurred between the years of 1929 and 1942. This period of shortage saw the construction of Island Park and Grassy Reservoirs by the Bureau of Reclamation, in addition to the additional space made available in Henrys Lake through work done by the North Fork Reservoir Company. This period also resulted in a filing by the USBR in 1939 for the construction of Palisades Reservoir.

Drought has been one of the big forces that has not only brought about water development on the Snake River system but has had a large influence upon the evolution of state water law and the water district that has been charged with the responsibility of administering Snake River water rights.

The drought of 1977 marked the end of an era in Water District 1. It became apparent that the development of the Upper Snake had reached the point where the past methods of water allocation could no longer assure the delivery of each water user's legal water entitlement. In 1977, the USGS also decided to terminate its fifty-nine year cooperative agreement with Water District 1. The end of the cooperative program between the water district and the USGS also coincided with the retirement of Arthur L. Larson who had served as Snake River watermaster since June of 1969.

In response to a request from the American Falls Reservoir District, Twin Falls Canal Company, and the North Side Canal Company, staff from the Idaho Department of Water Resources with the assistance of the USBR

and Water District 1 personnel commenced an inventory of all headgates and measuring devices within Water District 1. The Director of the IDWR agreed to allocate a portion of available drought relief funds to provide gage houses and stage recorders for a continuous record of the flows diverted by canal companies who normally divert in excess of 100 cfs of water. As a result of the diversion inventory 46 gaging stations constructed to USGS specifications were installed within Water District 1. During the inventory, many headgates and measuring devices were found to be unsatisfactory and most of the owners have made the necessary improvements. Pump diversion inventoried were required to have adequate measuring devices. This diversion inventory also included a review of all water rights associated with each diversion. Many questions have been raised regarding specific water rights which will take additional time and effort to resolve.

During the fall of 1977, the Committee of Nine reviewed the possible methods available to provide continuity in the water district and assure that necessary improvements were effected. In December of 1977, the committee decided to enter into a cooperative agreement with the IDWR through which the regional supervisor of the Eastern Regional Office would act as watermaster.

The IDWR installed computer equipment in the Idaho Falls regional office and the USBR office in Burley which would aid in the computerization of Water District 1 operation. Work started in 1976 by Alan Robertson and Bob Sutter of the IDWR Hydrology Section in Boise to computerize water distribution was stepped up to develop a computer allocation system that would allow water rights in Water District 1 to be delivered by a method that would provide prompt daily information and more accurately follow actual hydraulic conditions on the river. The system became operational on August 1, 1978, although the system was tested during the preceeding months.

The program used in 1978 accounted for 296 diversions on the Snake River and tributaries, including Willow and Sand Creeks, which became part of Water District 1 on February 1, 1976. While these diversions normally account for about 95% of the water used in the district, it is anticipated that the total number of diversions may exceed 500 in the coming years as the data for further program development become available.

WATER DISTRICT ANNUAL MEETING

The annual meeting of Water District No. 1 was held on March 6, 1978, in Idaho Falls, Idaho. Ronald D. Carlson was elected watermaster for the ensuing year.

The following were elected as members of the Committee of Nine:

Lester Saunders, chairman; Reed Murdock, secretary; William Watt, Homer Jones, Reed Oldham, Kenneth Anderson, Clyde Beck, Leo Robison, and Burdell Curtis.

Alternate: George Stromire.
Advisory members: Wendell Johnson, Merle Kunz, and Carlos Randolph.

The principal resolutions adopted at the annual meeting were as follows:

1. That the watermaster be requested to make such changes in the established water distribution practices as will result in more accurate deliveries of natural flow and stored water, improved regulation procedures to assure deliveries of all water rights by priority, to improve the availability of water supply and diversion records to the water users, and to assure that all water users are charged for water deliveries on an accurate and equitable basis.

2. Since the Director of the Department of Water Resources is charged by Section 42-602, Idaho Code, with the distribution of all water from streams and rivers in the state and since all watermasters in the state must be appointed and supervised by the Director of Water Resources pursuant to Section 42-608, Idaho Code, it is hereby recommended that the water users of Water District No. 1 enter into a cooperative program with the Idaho Department of Water Resources to provide watermaster services as outlined in a Memorandum of Understanding signed by the Chairman of the Committee of Nine and the Director of the Department of Water Resources on March 5, 1978.

3. We recommend that Ronald D. Carlson be elected watermaster for the ensuing year, including a staff of a deputy, assistant, and a clerk, with an aggregate salary of $40,953.00. This amount represents 67% of the salary of the watermaster and the salaries of the watermaster and clerk shall be paid from the non-water district funding provided by the Idaho Department of Water Resources.

4. Resolved that the duties of watermaster shall begin on this date and continue for a full period of one year.

5. Proposed budget for Water District No. 1 for the year beginning April 1, 1978:

Hydrographers:

Teton Basin	4 1/2 mos. @ $750 (+ mileage)	$ 3,375.	
Idaho Falls Area	4 1/2 mos. @ $800 (+ mileage)	3,600.	
Lower Valley	4 mos. @ $800 (+ mileage)	3,200.	
Henrys Fork	5 mos. @ $825 (+ mileage)	4,125.	
Falls River	150 days @ $ 35 (incl mileage)	5,250.	
Teton River	130 days @ $ 35 (incl mileage)	4,550.	$24,100.

WATER DISTRIBUTION METHODS

Water District No. 1 Boundaries

Water District No. 1 includes all of the Snake River and its tributaries in Idaho above Milner Dam, except the Blackfoot River and other southside tributaries below Blackfoot.

Stored water deliveries to Idaho users from Jackson Lake and Grassy Lake in Wyoming are also managed by District 1 watermaster in his capacity of special storage deputy. Other reservoirs in District 1 are Palisades, Henrys Lake, Island Park, Ririe, American Falls, and Lake Walcott.

Water District No. 1 Responsibilities

The watermaster is elected by the water users at the annual meeting in March pursuant to Section 42-605 of the Idaho Code. The statutes further require that this appointment be certified by the Director of the Department of Water Resources. It is the duty of the watermaster to distribute the natural stream flow to the various users according to their decreed and licensed priorities, and to regulate the use of water when stream flows are insufficient to supply water to all competing users. The watermaster also acts as a special deputy to the Director of the Water Resources to convey and distribute stored water to the various canals which are entitled to its use.

Seven of the eight reservoirs in Water District 1 are federally owned and operated. Most of the major canal systems have contracted for the use of storage from as many as three of these reservoirs. Release of water from the reservoir system for irrigation is made by the USBR at the request of canal managers through the watermaster. Selection of which reservoirs are to be drafted is the sole responsibility of the USBR which must consider other reservoir uses such as power generation and recreation. The watermaster determines the amount of stored water being diverted by the respective canals but does not identify from which reservoir(s) it was released.

Water District No. 1 Accounting Requirements

The watermaster has several accounting responsibilities. His primary responsibilities are to (1) determine the amount of natural flow available and (2) distribute this natural flow to the various water rights according to their priorities. His first requirement is then to collect data to determine the amount of natural flow and storage water delivered to each diversion and to assure proper division of water district charges.

The watermaster's accounting responsibility is complicated by the fact that the flow data, from which natural flow is calculated in determining which rights are in effect each day, only allows cuts to be made after the fact unless flow projections are made. Fortunately, in the past, all of the major diversions have had sizeable storage accounts in addition to their natural flow rights which made the lack of precision

in identifying which rights were being filled each day less critical. Because the watermaster had the ability to charge diverted water to either natural flow or storage accounts, if he later determined that natural flow entitlements of a certain canal expired on some previous day, subsequent diversions were simply charged against their storage accounts. This procedure works reasonably well as long as the supply of natural flow is average or above, since there is little opportunity for canal companies to divert over the amount of storage they have in their accounts. However, as the number of diversions increase, many of which do not have storage, the impact on natural flows becomes much more serious. When this additional demand is coupled with a below average supply of natural flow, the traditional lags in the accounting process become of serious consequence to many of the older water rights and to those holding space in various reservoirs.

In a district as large and variable as Water District 1, runoff time varies with basin characteristics, elevation, snow accumulation, exposure and numerous geologic factors. It is a frequent occurrence that one or more tributaries are receding to low flow rates when others still have flow in excess of that needed to meet demand. This variability requires that natural flows be computed and allocated at many locations. Because of the complexity and variability of the system, in addition to the large amount of data that is needed to accurately segregate natural flow and storage in all portions of the system, it is difficult to reasonably make the necessary calculations by hand in a timely manner.

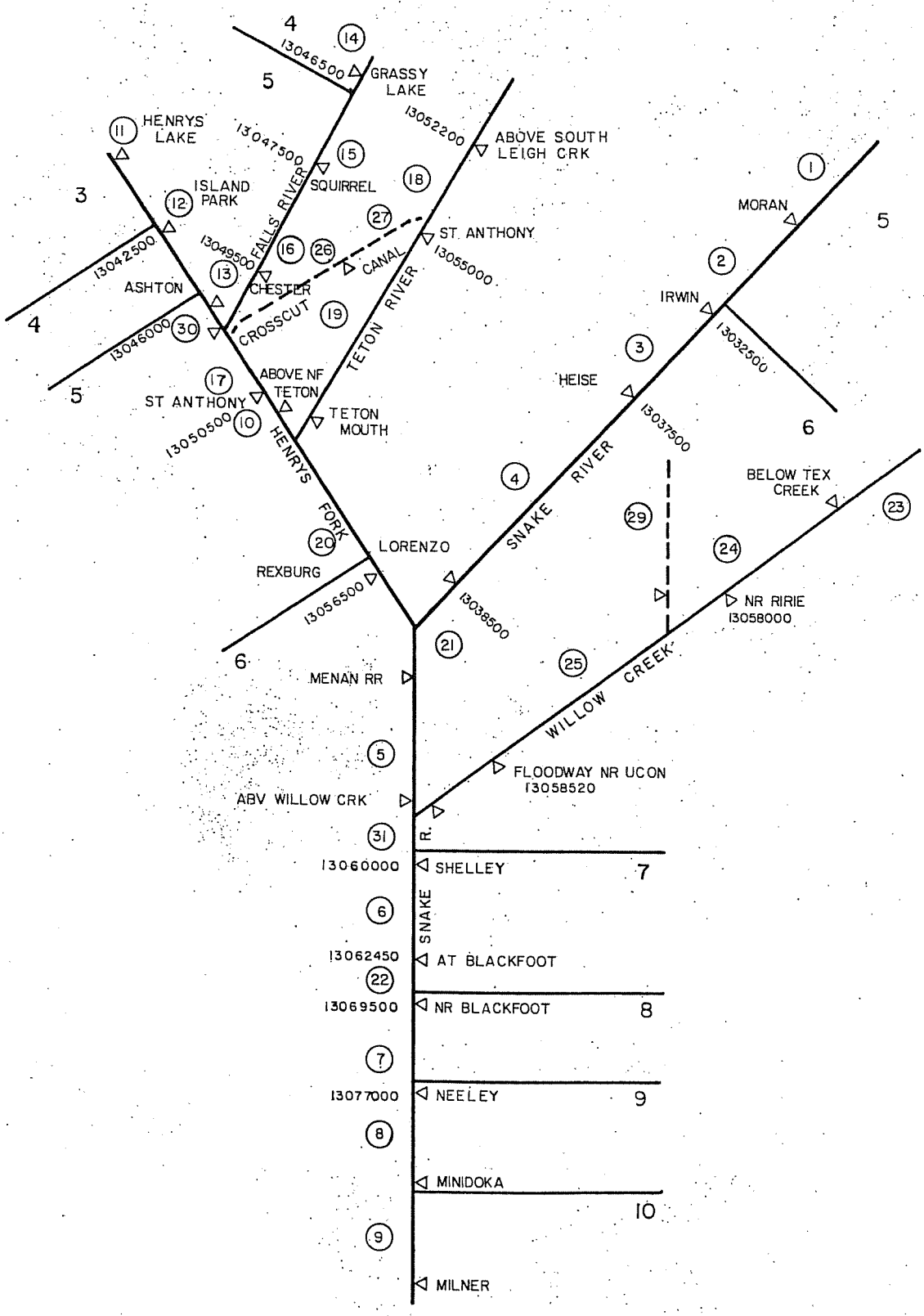
By using a computer procedure to allocate water during the 1978 season, Water District 1 was able to administer delivery of water to nearly 300 diversions. Figure 1 shows the locations where natural flows were computed and allocated. It is expected that the number of diversions administered will increase as the accounting process is expanded into more of the tributaries.

The Accounting Year

The watermaster and the USBR have separate but mutually dependent responsibilities in accounting for storage deliveries. Because the USBR is the water right holder for the various storage facilities within the district, they must keep the watermaster informed of the reservoir operating plan.

At the end of the irrigation season, the various canal storage accounts generally have storage remaining (carry-over) in one or more reservoirs. When water users have storage in more than one reservoir the watermaster has no method of determining the location of this carry-over unless the USBR specifies to which reservoir the carry-over is credited. This is necessary because the degree to which the reservoir rights can be filled in the ensuing accrual period is dependent upon the amount they are already filled. Once the watermaster knows the carry-over in each of the reservoirs he can then compute accrual to each reservoir account through the winter and spring months. At the end of the accrual period the canal storage accounts are set to the amount that each has filled physically and by provisions of the USBR canal company

FIGURE 1. UPPER SNAKE SYSTEM FOR WATERMASTER ACCOUNTING



contracts. Using the watermaster's computations of reservoir fill, it is the responsibility of the USBR to compute each canal company's storage allocation prior to the start of the irrigation season. After the initial canal storage accounts have been set the watermaster can then compute the daily storage withdrawals and remaining balances throughout the irrigation season.

Accounting Procedure

The process now used by Water District 1 to allocate water to the various water rights involves three steps. These are:

1. Determine the natural flow at several points throughout the river system.

2. Allocate the natural flow to the various water rights in order of their priority.

3. Charge diversions with storage water for the amount their diversions exceed their natural flow entitlement.

The computer program developed in 1978 allows the watermaster to efficiently handle the large amount of data necessary for proper allocation of water rights.

The following sections describe the details of the process used by the accounting program.

Natural Flow Determination

The Upper Snake and its tributaries are divided into about 30 reaches for the purpose of natural flow computation and subsequent flow allocation. Figure 1 is a diagram of the Upper Snake showing the reaches and Table 1 lists them in downstream order.

The natural flow available at the lower end of each reach is computed by summing the natural gain of individual reaches above that point. The individual reach gains are computed as in the following equation:

Reach gain = reach outflow - reach inflow
+ sum of reach diversions
+ reservoir change in storage
+ reservoir evaporation

This reach gain is not a true natural gain because of the influence of irrigation return flows. However, irrigation return flows contribute to the water available to be diverted in succeeding reaches. Therefore, these gains are considered to be part of the natural flow supply.

Before reach gains are computed, adjustments are made in the data to account for travel time. Table 1 lists the appropriate travel time in days from each reach to Milner. These travel times are similar to those used by District 1 in prior years. Travel time for both diversions within the reach and the outflow point are given.

TABLE 1

REACHES USED IN WATER DISTRICT 1 WATER RIGHT ACCOUNTING

No.	Name	Travel Time in Days from Downstream Point to Milner	Travel Time in Days from Diversion Points to Milner Dam
1	To Moran	5	5
2	Moran to Irwin	4	4
3	Irwin to Heise	4	4
4	Heise to Lorenzo	4	4
11	To Henrys Lake	7	7
12	Henrys Lake to Island Park	6	7
13	Island Park to Ashton	5	6
30	Ashton to above Falls River	5	5
14	To Grassy Lake	6	6
15	Grassy Lake to Squirrel	5	5
16	Squirrel to Chester	5	5
26	Crosscut Canal below diversions	-	-
27	Crosscut Canal at end	-	-
17	Above Falls River to St. Anthony	5	5
10	St. Anthony to above NF Teton	5	5
18	Above S. Leigh to St. Anthony	5	5
19	St. Anthony to Teton mouth	5	5
20	Above NF Teton to Rexburg	4	5
21	Lorenzo to Menan	4	4
5	Menan to Willow Creek	4	4
23	Willow Creek below Texas Creek	4	4
24	Below Texas Creek to near Ririe	4	4
29	Eagle Rock Dump near Willow Creek	-	-
25	Near Ririe to fdwy near Ucon	4	4
28	Fdwy near Ucon to End	4	4
31	Willow Creek to Shelley	3	4
6	Shelley to Blackfoot	3	3
22	At Blackfoot to Blackfoot	2	3
7	Near Blackfoot to Neeley	1	1
8	Neeley to Minidoka	1	1
9	Minidoka to Milner	0	0

Because Milner is used as the reference point for travel times, all dates for calculated data and allocations refer to Milner time. For example, when rights are being allocated for the 10th of the month, data are being used from the 3rd at Henrys Lake, the 4th at Grassy Lake, the 5th at Moran, the 7th at Blackfoot, and so forth.

Adjustments are made in the computed reach gain of reaches containing reservoirs to smooth the effects of observed daily variations in stage caused by wind or other measurement problems. Such minor errors in stage can cause unrealistic estimates of gain. To minimize these variations, a running average of the reach gains for several days is used for all reservoir reaches. Presently, a four day average is used in all of the reaches except the near Blackfoot to Neeley reach, for which a fifteen day average is used. American Falls Reservoir, located in this reach, has a large surface area and is subject to relatively greater fluctuations than the other reservoirs. A four day average is also used on other reaches located downstream from reservoirs for computational consistency from reach to reach.

Evaporation is included in the reach gain calculation for the reaches which include Palisades, Island Park, Ririe, American Falls, and Walcott Reservoirs. These reservoirs are entirely man-made and cause loss to the natural flow through evaporation. Daily evaporation is computed by multiplying the surface area by 0.7 of the pan evaporation. Daily pan evaporation is measured at the Aberdeen Agricultural Experiment Station. The following equations are used to estimate the total evaporation from the pan evaporation at Aberdeen.

Reservoir	Equation
Palisades	$E = 0.7(SA)(0.94A - 0.04)$
Island Park	$E = 0.63(SA)A$
Ririe	$E = 0.7(SA)(0.94A - 0.04)$
American Falls[1]	$E = 0.7(SA)A$
Walcott	$E = 0.7(SA)A$

[1] Surface area limited to 8,000 acres

where

E = evaporation in acre-inches per day
SA = reservoir surface area in acres
A = pan evaporation at Aberdeen in inches per day

The evaporation at American Falls is computed based on a maximum of 8,000 acres since there is evidence that prior to the construction of the reservoir, the remainder of the area was swampland in which the evapotranspiration would probably have approximated the present water surface evaporation. Jackson Lake and Henrys Lake evaporation is not included because prior to the addition of dams, natural lakes existed at the sites. Any additional evaporation occurring because of the artificial raising of the lake surface is considered insignificant. Grassy Lake evaporation is also not significant because of its small size and high altitude.

Right Allocation

After the reach gains are accumulated in downstream order, the natural flow has in effect been determined at each reach outflow point. The rights are then filled in order of priority based on these flows until either the water supply has been exhausted at all flow points or all rights are satisfied. Beginning with the earliest priority, water rights are allocated flow one by one unless limited by either the water supply or the magnitude of the demand. As each right is satisfied, it is subtracted from the natural flow in its own reach, and from all of the reaches downstream from it. In this manner, the flow is removed from the system so that it cannot be used a second time. The flow remaining after a subtraction is called the "remaining natural flow" or RNF. Should the RNF at any reach become zero, all subsequent rights above that reach cannot be satisfied.

Often several rights having the same priority must share a limited water supply. In these cases, the remaining flow is distributed to each right in proportion to its percentage of the total of the rights involved but is subject to the flow being available at the location of the right.

Some rights are limited by the volume that can be diverted during the year. When a right is limited by volume, a check is made to insure that the cumulative total of diversions does not exceed the volume(s) specified in the water right(s). This condition applies to all reservoir rights and certain natural flow rights which include a volume limitation.

Power rights are deducted from the reach's natural flow but not from all downstream reaches, since this flow is not removed from the river. In this manner a power right may limit the distribution of natural flow at and above the point of diversion of flow through a power plant. Only that portion of a power right which is being beneficially used for power production can affect the distribution.

Reservoir Storage

A reservoir when storing or releasing water modifies the flow within the reach in which it is located, and requires special accounting procedures. However reservoirs, like all other diversions, can accumulate water only when their rights are in effect. The amount stored on a given day does not necessarily relate to the actual change in storage of the reservoir. Flow credited to one reservoir may actually have been stored in a different reservoir located upstream or downstream from it.

The amount stored by a reservoir may be limited by a flow rate or a seasonal volume. This volume may be the physical capacity of the reservoir, or the total of the storage rights in the reservoir, whichever is smaller. In the Upper Snake River system some reservoirs have more than one storage priority, each with a different volume. Table 2 lists the major storage rights in District 1 in order of priority.

TABLE 2

STORAGE RIGHTS DISTRICT 1

Reservoirs	Flow (cfs)	Volume (ac-ft)	Priority
	1 Jan - 31 Dec		
1. Jackson Lake	2,500	298,981	23 Aug 06
2. Lake Walcott		97,000	14 Dec 09
3. Jackson Lake		138,829	8 Aug 10
4. Jackson Lake		409,190	24 May 13
5. Henrys Lake	1,000	79,350	15 May 17
	1 Nov - 30 Apr		
6. Palisades		259,600	29 Mar 21
7. Island Park		45,000	29 Mar 21
8. American Falls		159,400	29 Mar 21
9. American Falls		1,540,600	30 Mar 21
10. Island Park		90,000	14 Mar 35
11. Grassy Lake		15,204	13 Feb 26
12. Palisades		940,400	28 Jul 39
13. Henrys Lake		10,650	29 Jul 65
14. Ririe		*	16 Jun 69
	1 May - 31 Oct		
6. American Falls		1,700,000	30 Mar 21
7. Island Park		135,000	14 Mar 35
8. Grassy Lake		15,204	13 Feb 36
9. Palisades		1,200,000	28 Jul 39
10. Henrys Lake		10,650	29 Jul 65
11. Ririe		*	16 Jun 69

*Ririe water right has not been obtained.

The total of the storage rights in the reservoirs are as follows:

Jackson Lake	-	847,000 acre-feet*
Palisades	-	1,200,000 acre-feet
Henrys Lake	-	90,000 acre-feet
Island Park	-	135,000 acre-feet
Ririe	-	0 acre-feet
American Falls	-	1,700,000 acre-feet
Walcott	-	97,000 acre-feet

* Restricted to 624,360 acre-feet as of 1978. The respective Jackson Lake rights in Table 2 have been reduced proportionally.

Certain of the Palisades, Island Park, and American Falls water rights are subject to seasonal variations as noted in Table 2. These variations result from contracts made by the USBR with various canal companies and the Idaho Power Company. These contracts allow for a portion of the storage in each of these reservoirs to be filled at an earlier priority date than American Falls Reservoir (30 March, 1921) by reason of curtailment by Idaho Power Company. These provisions became administrable under state water law when the contracts were included as part of district court decrees in 1968 and 1969.

Each of the reservoir rights can be filled only to the maximum volume specified in the right. When stored water is released from a reservoir, thus making room for additional storage, the amount accumulated in that space is not adjusted downward until the end of the irrigation season. This prevents a second fill at the expense of later rights.

Because the United States Department of Interior, through the USBR, holds all of the major reservoir storage rights on the Upper Snake (except Henrys Lake), it is not possible for the watermaster to determine the amount of water that has been released from the storage space of each right. It is, therefore, the responsibility of the USBR to provide the watermaster with carried-over calculations at the end of the water year.

Stored water releases are accounted for at each reach outflow point. The stored water available in each reach is calculated by subtracting the remaining natural flow (RNF) from the actual flow. If a negative stored flow results, the flow belonging to a downstream right has been stored or diverted upstream.

Special Computations

Crosscut Canal - Stored water can be delivered to canals on Teton River below the near St. Anthony gage via the Crosscut Canal which diverts from the Henrys Fork below Falls River. The Crosscut also carries water to the North and Middle branches of the Falls River Canal to supply Falls River natural flow rights.

The Crosscut requires special computation because this flow does not occur in normal downstream order, but instead transfers flow to an adjoining basin.

STORED WATER

The ability to store water, when it is not needed, for use during periods of scarce supplies is vital to agricultural and power needs of the Snake River Valley. Reservoirs also provide for flood control and flows for fish wildlife and recreation.

While there are many benefits associated with reservoirs, their right to divert water for storage is defined by the beneficial uses identified in the water right license. Storage rights are subject to the same general water laws as other water rights. This "sameness" in legal standing dictates special administrative procedures. To illustrate this point, consider a system on which the earliest right is a storage right equal to one-half the mean annual runoff of the basin. Further suppose that one-half of the runoff occurs between November 1 and April 1, and the remaining one-half comes off between April 1 and October 31. If the decision is made to store water between November 1 and April 1, the remaining water is available to fill the later natural flow rights during the period April 1 to November 1.

If, on the other hand, a decision is made to allow water to flow past the reservoir and exercise the right during a different period, the water supply for the junior water rights will be diminished. Since it is clearly the intent of the Idaho Code that any interference between water rights be prevented, the Water District 1 accounting process credits all available natural flow to the reservoirs according to priority of right, until each storage right is filled. This procedure is complicated by BOR flood control obligations. This dilemma is handled by allowing the reservoir to refill as long as there is water in excess of all other rights. This second fill is defined as "unaccounted for storage" and is credited back to the reservoirs pursuant to instructions of the storage right holder, i.e. the Bureau of Reclamation. By taking this approach during 1978, the major reservoirs in the system were allocated water as shown in Table 10.

TABLE 10
RESERVOIR ALLOCATIONS

Reservoir	Sum of Rights (acre-feet)	Accrued Storage (acre-feet)	Proportion of Rights Filled (Percent)
Jackson Lake	624,360[1]	624,360	100.0
Palisades	1,200,000	1,125,600	93.8
Henrys Lake	90,000	87,047	96.7
Island Park	135,000	135,000	100.0
Grassy Lake	15,204	14,030	92.3
Ririe	90,000[2]	0	0
American Falls	1,700,000	1,700,000	100.0
Lake Walcott	97,000	97,000	100.0
Total	3,951,564	3,783,037	98.0

1/ Represents restricted capacity.
2/ Ririe water right has not been obtained.

Disposal of Stored Water

Each year after reservior accounts have achieved the maximum annual fill, the supply is divided among the various space holders. Table 11 shows the space allocations, storage used and carry-over by account for Jackson, Palisades and American Falls Reservoirs. If these data were to be used in crediting carry-over for 1979, additional adjustments would have to be made to correct for rentals, adverse storage use, evaporation and stored flows spilled past Milner. This amounts to 120,800 acre-feet or an average reduction of about 4.8% on each account.

TABLE 11

SPACE ALLOCATIONS, STORAGE USED & CARRY-OVER

Canal	Total Allocation	Storage Used	Water Used in Excess of Allocation	Carry-over
A & B Irrigation	133,363	20,747		112,616
Aberdeen-Springfield	253,927	1,625		252,302
American Falls Res. District #2	400,938	148,742		252,196
Bear Island	272	685	413	0
Blackfoot Irrigation	21,995	2,345		19,650
Burgess Canal	46,765	16,901		29,867
Burley Irrigation	194,712	42,580		152,132
Butler Island	234	584	350	0
Butte & Market Lake	47,925	216		47,709
Clark & Edwards	750	2,950	2,200	0
Clement Brothers (Kennedy)	634	252		382
Corbett Slough	10,750	147		10,603
Craig-Mattson	1,351	348		993
Danskin Ditch	2,204	1,693		511
Dilts Irrigation	2,389	474		1,915
Enterprise Canal	35,602	6,779		28,832
Enterprise Irrigation	14,525	5,535		8,990
Falls Irrigation District	61,664	12,989		48,675
Farmers Friend Irrigation	10,291	8,393		1,898
Harrison Canal	42,872	24,077		18,795
Idaho Irrigation	87,817	17,510		70,307
Idaho Power	45,000	45,000		0
Island Irrigation	4,409	1,881		2,528
LaBelle Irrigating	750	260		490
Lenroot Canal	15,089	2,803		12,286
Lowder Slough	2,268	1,570		698
Martin Canal (Great Western)	9,219	2,545		6,674
Milner Low Lift	87,428	22,032		65,396
Minidoka Irrigation	253,524	69,471		184,053
New Lavaside	11,022	73		10,949
New Sweden	72,026	15,182		56,844

TABLE 12 - Acquisition and Disposal of Rental Water (continued)

Disposal (continued)			
Date Requested	Renter	Diversion	Amount (acre-feet)
5/10/78	Everett Harriell	Oakland Valley Canal	20
5/15	Daniel Albertson	New Sweden	100
5/17	Lyle Robison	Lenroot	150
5/24	Ross Burns	Bannock Feeder	50
6/01	Ray E. Miller	Butte & Market	80
6/02	Theron Cheney	Lenroot	50
6/13	N. L. Olsen	Snake River	200
6/12	Marion S. Cheney		50
6/09	Richard McCardell	Snake River	200
6/09	Sterling Swanner	Great Feeder	10
6/30	Steven Kudla	New Sweden	5
6/30	Robert Lundblade	Snake River	100
7/05	Taylor Lott		20
7/10	Paul Byrd		100
7/11	Jerry Blosch		300
7/14	Circle Two Bar Ranch		250
7/18	George Hickman	Feeder Canal	25
7/21	Larry Ferguson	Farmers Friend	100
7/21	Clyde Burtenshaw	Farmers Friend	120
7/20	Claude Ferguson	Farmers Friend	150
8/03	Maxmillion Farms		125
8/18	Philip Hoehn		10
8/28	Burgess Canal	Burgess Canal	150
9/14	Brent Covington	Snake River	650

REGULATION SCHEDULE

The computer allocations program allows much greater refinement in making priority cuts. Because the computer calculates both the amount of natural flow available in a given reach and the downstream demand, it is possible to have many different priorities in effect on any given day.

Table 13 shows the complete regulation schedule used in 1978. The earliest priority cut on the main Snake River occurred on September 2, when the water supply could only provide water for priorities equal to or earlier than February 6, 1895. The rights on Willow Creek, on the other hand, were cut back to the May 1, 1888, on June 17. By August 23, the April 1, 1884 priority was the last right filled on Willow Creek.

All of the water rights recognized by the computer in distributing natural flow are listed in order of priority in Table 48 of the Appendix.

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EXHIBIT 52

Minutes Of Committee Of Nine Meeting,
City Electric Building, Idaho Falls, Idaho
(Sept. 21, 1979)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

MINUTES OF COMMITTEE OF NINE MEETING

I certify this to be a true and correct copy of the original.

City Electric Building, Idaho Falls, Idaho

September 21, 1979

At 10:30 a.m., the Committee of Nine met with the Idaho Water Resource Board in the City Electric Building in Idaho Falls, to discuss the operation of the Water Bank on the Upper Snake. Chairman Lester Saunders reported that 78,248 AF of water had been submitted to the rental pool of which 71,387 AF had been rented to 56 rentors. The largest transaction was the lease of 60,000 AF to Idaho Power.

The regular meeting of the Committee of Nine was called to order by Chairman Saunders at 1:00 p.m., with seven regular members, one alternate and one advisory member present. The minutes of the last meeting were read by Reed Murdock. The minutes were approved as read.

Lester Saunders asked the Director of the Department of Water Resources, Stephen Allred, to explain the watermaster's process for crediting water to the reservoirs. Steve explained that any water available at a reservoir for storage is credited to that reservoir storage right. Once a right has filled on paper, even if water has been released and additional space is available, the priorities of the reservoirs are considered to no longer be in effect. This is offset by the fact that any diversion which takes over its natural flow entitlement is charged with storage used. Steve explained that there are alternatives to this approach, but this is the best accounting method for showing "what is happening" in the system. Steve stressed that the computer only does the accounting and does not eliminate the need for human judgement.

Ron Carlson indicated that water use has been extremely high this summer and he has had difficulty in keeping the river steady because of canals changing their rate of diversion without notifying him in advance. Ron indicated that he is planning to schedule a meeting with all of the canal managers sometime in November to develop a communication system which will give him 24-hour notice prior to a diversion change. He also told the committee that he is looking at the possibility of installing a telephone answering machine which will allow any water user to call and determine the priorities presently in effect on the river.

John Rosholt brought up quiet title actions involving water rights which get through court without the watermaster or department being notified. John recommended that the water users support legislation changes which would require either the watermaster or the Department of Water Resources to be a party in any water right adjudication proceeding.

Carlos Randolph recommended that water users be reminded that water they are using now could be a supply they won't have next summer. He suggested that each company review its water needs in light of a possible low water supply next year. Carlos mentioned that he is planning to retire in December and expressed his appreciation to the Committee of Nine for the opportunity he has had to work with them.

Homer Jones reported to the Committee that many decrees exist which indicate water rights that have not been exercised for twenty years or more. Homer felt that there should be some way to get these removed from the State's records. Steve Allred responded saying the state has no authority to declare such rights relinquished unless it is associated with the Department's action on an application for transfer.

Ron Carlson reported that he had reviewed the diversions from the Milner Pool. He said that the pump owners who could be identified have been contacted. Several have made arrangements to rent water but others are claiming they are entitled to water from MID.

The Committee of Nine discussed legislation that needs to be presented in the next legislation session. The Committee agreed that water users should sponsor legislation which would accomplish the following:

1. Allow a change in the nature of use of water leased through the Water Bank on an annual basis.

2. Provide for a water district minimum charge for water deliveries.

3. Amend statutes to require the watermaster or Department of Water Resources be involved as a party in all water adjudication proceedings.

The Committee also discussed the need to streamline the water district's annual meeting. This is to be considered at the next meeting.

Meeting adjourned at 2:50 p.m.

Reed D. Murdock

REED D. MURDOCK, Secretary
Committee of Nine

I certify this to be a true and correct copy of the original.
Wendy Murphy

ROSTER OF ATTENDANCE

~~W.D. NO. 1 ANNUAL MEETING~~ - 1979

Com. of Nine Sept. 21

Reed D. Murdock	Com. of Nine	Blackfoot
Ron Carlson	WD#1	IF
Wendell Johnson	AF#2	Rialfield
Clyde Bock	Rte I	Roberts Idaho
Kenneth Anderson	RT#1	Roberts Idaho
Homer Jones	RF 2	Ashton Idaho
Leo G. Robison	- Com. of Nine	Rexburg, Idaho
Leon Grieve	A.F. R.O #2	- Shoshone
Clifford Montgomery	Twin Falls Canal Co.	Twin Falls Idaho
Bill Watt	" " " "	Buhl
Ted Dial	NSC Canal	Jerome
John A. Rosholt	P.O. 1906	- Twin Falls
Lyle Swank	W.D. #1	I.F.
K. Ebersole	U.S.B.R.	Burley
J.R. Holbrook	Com of Nine	Burley
Cliff Darrington	Burley Irrig Dist.	Dedo
Neil Stessman	USBR	Boise
Carlos Randolph	"	Burley

[illegible] Allred

I certify this to be a true and correct copy of the original.

Wendy Murphy

ROSTER OF ATTENDANCE
W.D. No. 1 ANNUAL MEETING - 1979

Com. of Nine Sept. 21, 1979
com. of nine met with Water resources Board to give a report on leased water from the water Bank. Held at Electric building in Idaho Falls.
Dissussion was held on amount ~~old~~ water leased and to whom.
recessed till 1:00

I certify this to be a true and correct copy of the original.
Wendy Murphy

Com. of Nine Sept. 1, 1979

Convened at Idaho Falls Electric Building at 1:00. Minutes were read by Reed Murdock.

Stine Allred discussed the storage program of reservoirs relating to use of late water rights versus refilling of reservoirs. Ron Carlson discussed communications and regulations. Deputising all riders who regulate river gates. Suggested a meeting with all ditchriders (who regulate the river gates) in november to explain the system of regulation.

John Rosholt brought up suits for water rights.

Carlos Randolph brought out the idea that we may be using ~~fft~~ water late this fall that might be more valuable next year.

Carlos mentioned that he is retiring late this year and he has appreciated working with the Com. of nine.

Homer Jones brought up a discussion on old water rights.

Ron Carlson reported on the dimensions out of miner Pool.

Discussion was held on legislation needed and format for annual meeting. It was suggested Ward Chapman be contacted to carry a bill on the minimum charge for [illegible]

I certify this to be a true and correct copy of the original.
Wendy Murphy

discussion was

adjourned at 2:50 P.M.

I certify this to be a true and correct copy of the original.

Wendy Murphy

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EXHIBIT 53

Excerpts, "Palisades Dam And Reservoir Project In Idaho – Letter from the Secretary of the Interior transmitting A Supplemental Report on the Allocation and Repayment of Costs of the Palisades Dam and Reservoir Project in Idaho, Pursuant to Public Law 864, 81st Congress" (Nov. 27, 1950) (U.S. House of Representatives Document No. 720) (81st Congress, 2d Sess.)

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

00000153

HOUSE DOCUMENTS

81st Congress, 2d Session

(January 3, 1950–January 2, 1951)

▽

REPORTS ON VARIOUS RECLAMATION PROJECTS

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON 1950–1951

81st Congress, 2d Session - - - - - - House Document No. 720

PALISADES DAM AND RESERVOIR PROJECT IN IDAHO

LETTER

FROM THE

SECRETARY OF THE INTERIOR

TRANSMITTING

A SUPPLEMENTAL REPORT ON THE ALLOCATION AND REPAYMENT OF COSTS OF THE PALISADES DAM AND RESERVOIR PROJECT IN IDAHO, PURSUANT TO PUBLIC LAW 864, 81ST CONGRESS

NOVEMBER 27, 1950 —Referred to the Committee on Public Lands and ordered to be printed, with illustrations

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PALISADES DAM AND RESERVOIR PROJECT, IDAHO

LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D C., November 9, 1950.

Hon SAM RAYBURN,
Speaker of the House of Representatives

MY DEAR MR SPEAKER: Transmitted herewith is a supplemental report on the allocation and repayment of costs of the Palisades Dam and Reservoir project in Idaho

This project was authorized initially by a report and findings of the Secretary of the Interior, dated December 9, 1941 (H Doc 457, 77th Cong , 1st sess), under the provisions of section 9 (a) of the Reclamation Project Act of 1939

The dam and related works, as contemplated in the attached report, vary in certain respects from those originally authorized The reservoir will have a total active storage capacity of 1,200,000 acre-feet This capacity will be used jointly for irrigation and flood control under a plan of operation worked out by the Bureau of Reclamation and the Corps of Engineers, Department of the Army The reservoir will supply supplemental irrigation water for about 650,000 acres of land in the Upper Snake River Valley A power plant having an installed capacity of approximately 112,500 kilowatts will be installed at the dam. The estimated cost of construction of the project is $76,601,000

Copies of the report were sent to officials of the States of Idaho and Wyoming and to the Secretary of the Army, Secretary of Agriculture, Chairman of the Federal Power Commission, and the Director of the Office of Domestic Commerce, Department of Commerce, for their information and such comments as they wish to make Copies of all the comments received are enclosed, together with our response to the Chairman of the Federal Power Commission.

The report was submitted to the President, and the Director of the Bureau of the Budget, by letter dated July 17, 1950, advised that, while there would be no objection to the submission of the report to the Congress, authorization of the project would be without objection only if certain changes were made. A copy of this letter is enclosed.

Under the terms of Public Law 864, approved by the President on September 30, 1950, the Palisades project has now been reauthorized essentially in accordance with the enclosed report but with certain modifications suggested, in part, by the comments of the Director of the Bureau of the Budget It would be appropriate for the enclosed report and the accompanying comments to be printed as a public document

Sincerely yours,

OSCAR L CHAPMAN,
Secretary of the Interior.

LETTER FROM THE BUREAU OF THE BUDGET TO THE SECRETARY OF THE INTERIOR

EXECUTIVE OFFICE OF THE PRESIDENT.
BUREAU OF THE BUDGET,
Washington 25, D C, July 17, 1950.

The honorable the SECRETARY OF THE INTERIOR

MY DEAR MR. SECRETARY. This will acknowledge receipt of your letter dated March 4, 1950, requesting advice as to the relationship to the President's program of the proposals contained in your Department's accompanying supplemental report entitled "Palisades Dam and Reservoir Project, Idaho, Allocation and Repayment of Costs," prepared by the regional director, region 1, and dated June 1949 Enclosed with your letter were copies of the comments on the report received from the State governments and interested Federal agencies to whom the report was submitted for review It is understood that the report is to provide the basis for amendatory legislation which would authorize an increase in the scope of the project by enlarging and adding to the purposes which it would serve

The Palisades project, as initially authorized by the Secretary of the Interior's report and findings dated December 9, 1941 (H Doc 457, 77th Cong, 1st sess), would be a multiple-purpose development providing for a dam and reservoir on the main stem of the Snake river in eastern Idaho, for conservation of supplemental irrigation water supply, flood control, and for hydroelectric power generation and transmission As revised, the present plan provides for expansion of the power installation from 30,000 kilowatts to 112,500 kilowatts, increase in the capacity of the outlet works of the dam and, in addition, the installation of fish and wildlife facilities at Grays Lake, Idaho, and of recreation facilities at the Palisades Reservoir The estimated cost of the proposed project as authorized in 1941 was $24,092,000, while the total estimated cost of the development, as presently proposed, is $76,601,000 based on January 1, 1949, price levels The increase is attributed to higher costs of construction, the expansion of facilities, and the addition of fish and wildlife and recreational facilities

The report states that the only water which would be stored in the Palisades Reservoir is the above-average stream flow which could be carried over to years of below-average stream flow together with whatever water is saved by the proposed elimination of present wasteful winter diversions Existing reservoirs in the Upper Snake River Valley are considered to have capacities sufficient to hold all the presently storable water in years of average or less than average stream flow. The operation plan proposed for Palisades Reservoir is expected to result in providing supplemental irrigation water for about 650,000 acres of land in the Upper Snake River Valley and thus eliminate all shortages on existing projects except during extremely dry years In this connection, it is noted that an average of 216,000 acre-feet of additional water is proposed to be made available annually by the project which would amount to only approximately 4 inches per acre per year for the 650,000 acres assuming that 100 percent of the water would reach the land Average annual irrigation benefits are estimated to be $1,981,000

In his letter dated June 17, 1949, the Commissioner of Reclamation states that the success of the project is dependent on having continued

ssurances that average annual water savings of 135,000 acre-feet will be realized, which is expected to be accomplished by means of contractual arrangements with the water users of the Snake River Valley above American Falls Reservoir, whereby they will agree to curtail certain wasteful winter water diversions While tentative commitments on this matter have been given by resolutions of the governing bodies of interested water users' organizations, which the Commissioner regards as sufficient to justify initiation and continuation of construction he points out that it may be desirable to have some additional means of bringing about the translation of these commitments into contractual assurances before the project is completed The Commissioner also states that of the reimbursable construction costs allocated to irrigation, a maximum of $10,305,000 can and should be repaid by the water users in a repayment period of 40 years and that a higher amount should be required to be repaid if that period is lengthened He proposes that the balance of the costs allocated to irrigation amounting to $11,419,000, be repaid out of power revenues by application of the interest component on the commercial power investment and of such additional power revenues as may be required

The report states that the production of power at the Palisades Dam will be entirely incidental to the operation of the reservoir for irrigation and flood control and that the production of firm power is possible only because a certain amount of water must be passed through the reservoir during the winter to fill the prior storage right of the American Falls Reservoir During spring and summer months the releases for flood control and for irrigation will be utilized for production of secondary commercial power and irrigation pumping power to the extent of turbine capacities Total annual power benefits are estimated to be $1,621,000

The report states that additional detailed studies, made by the Bureau of Reclamation and the Corps of Engineers since the project was authorized, show that Palisades Reservoir can provide greater control of major floods than was originally contemplated without adversely affecting the value of the reservoir for irrigation purposes. These studies have resulted in agreement by both agencies on an operating plan on a forecast basis, whereby the entire active space in the reservoir (1,200,000 acre-feet) will be used jointly for flood control and irrigation purposes under regulations to be prescribed by the Secretary of the Army for use of storage space allocated to flood control, in accordance with section 7 of the Flood Control Act of 1944 It is estimated that average annual flood control benefits would amount to $899,330

It is proposed that the yield of irrigation water from 55,000 acre-feet of storage space in Palisades Reservoir be substituted for the water supply now drawn from Grays Lake for the Fort Hall Indian Reservation, in order to restore Grays Lake to its natural state and to control its level to create optimum wildlife environment It is also proposed to develop a wildlife management area at Grays Lake at a total estimated cost of $350,000, nonreimbursable, for construction of buildings and other facilities and the acquisition of approximately 9,300 acres of private land An additional 3,500 acres of public land would also be set aside for this purpose The annual cost of operation and maintenance of these and other proposed facilities is estimated to be $15,000 It is explained that studies by the Fish and

Wildlife Service have shown that such a development in connection with the Palisades project would produce fish and wildlife benefits of substantial value which are estimated to be $125,015 annually

The report proposes construction of public recreation facilities at the Palisades Dam and Reservoir at an estimated cost of $148,000 It is noted that the National Park Service considers that the total allocation of costs to recreational purposes would be equivalent to twice the cost of the facilities constructed exclusively for recreation, or $296,000 as a nonreimbursable expense, although the basis for this conclusion is not explained.

In addition to the recreation facilities at Palisades Reservoir, the report states that, by coordinating the operation of Palisades Reservoir with that of Jackson Lake Reservoir in Jackson Hole, Wyo., it will be possible to stabilize the level of Jackson Lake at full level throughout the tourist season except for very dry years and thereby will create substantial recreation benefits at Jackson Lake Reservoir. The report estimates that the benefit would justify a nonreimbursable allocation to recreation purposes in the amount of $6,000,000 because of increased tourist use and because of the beauty of the foreground of the Grand Tetons While no other basis is given for this estimated benefit, information furnished informally to the Bureau of the Budget by representatives of the Bureau of Reclamation indicates that it represents the estimated cost of building the existing dam at Jackson Lake at January 1949 prices. In this connection, the report of the National Park Service stated that they had no means of making a conclusive estimate as to the value of present recreational use of Jackson Lake since no records are kept as to the number of visitors but that such use is known to be small compared to what it would be if conditions were more attractive. The annual benefit to recreation is estimated to be $244,915

As set forth in the regional director's report, $31,834,300 of the total construction cost of the project would be nonreimbursable with allocations of $22,733,300 to flood control, $6,296,000 to recreation, and $2,805,000 to the preservation and propagation of fish and wildlife The balance of the estimated construction cost, amounting to $44,766,700, is considered to be reimbursable with allocation of $21,724,400 to irrigation, $8,986,500 to irrigation pumping power, and $14,055,800 to commercial power Incidentally, it is noted that the allocation to irrigation as given in the Reclamation Commissioner's letter dated June 17, 1949, is $198,400 less than in the report of the regional director, and correspondingly greater to power The report recommends that the portions of the annual costs of operation, maintenance, and replacement properly allocable to the nonreimbursable purposes, including costs related to the hydrologic network, also be on a nonreimbursable basis

As explained in the regional director's report, the proposed winter water-saving program involves elimination of a long-standing practice of supplying domestic and stock water to farmsteads by operating the irrigation canal system throughout the year A substantial portion of the water diverted into the canals during the winter seeps into the underlying ground water reservoir which is not tributary to the Snake River above Milner Dam The report points out that elimination of these winter seepage losses from the canals will increase the amount of water available for storage The report estimates

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that an average of 135,000 acre-feet annually would be saved by eliminating winter diversions in the area above American Falls, under the water-saving program, and would provide sufficient water for storage in dry years to make the construction of Palisades Reservoir feasible from the standpoint of yield of irrigation water It is stated that the plan on which there is tentative agreement provides that the water users in this area will eliminate the winter diversions by drilling wells at their own expense

The regional director also makes reference to the results of the investigation of water uses and requirements in the Upper Snake River Valley set forth in his project planning report No 1-5 17-1 entitled "Water Supply for Palisades Reservoir Project," dated October 1946 In that report, the regional director recommends that agreements be secured with water users to eliminate the winter diversion of water with the objectives of achieving ultimately an annual saving of 435,000 acre-feet and as a condition precedent to a commencement of construction of the Palisades project, an annual saving of 283,000 acre-feet A total of 135,000 acre-feet would be saved by shutting off, during the nonirrigation seasons all canals in the area above the American Falls Reservoir where water tables are not tributary to the Snake River above Milner Dam It is noted in the report that 80 percent of the farmsteads in this area now obtain domestic water from wells which indicates the desirability of well water for domestic use and it would be necessary under the proposed program for the remaining 20 percent of the farmsteads to install wells at their own expense when the winter water saving agreements become effective It is stated that an additional saving of 148,000 acre-feet would result from elimination of winter operation of canals for domestic and stock watering purposes in the Minidoka and North Side Twin Falls projects below American Falls Reservoir All of the farmsteads in the Minidoka project and 60 percent or more of the farmsteads in the North Side-Twin Falls project are now fully equipped with wells Therefore the remaining farmsteads in the latter project would have to be equipped with wells before the canals could be shut off during the winter The remaining recommended saving of 152,000 acre-feet would be realized by eliminating the winter operation of canals to the South Side Twin Falls project when a satisfactory supply of water for domestic and stock use has been provided Inasmuch as the water available from the wells in the South Side Twin Falls project is unsuitable for domestic use, a well program cannot be recommended for that project and a satisfactory supply of water must be supplied by some other means before the Twin Falls canal can be shut off during the winter The 1946 report recommended (as a supplement to the Palisades report of 1941) the construction of a domestic water distribution system and central treating plant to serve this project providing for repayment of construction costs without interest within a period of 40 years The report stated that because the operation of such a domestic water system would result in the saving of a large quantity of water for irrigation use, the Government would be justified in financing the construction cost without interest under the reclamation laws Such works which are required to effect the ultimate water savings, are not a part of the plan of improvement recommended for immediate authorization

The Acting Chief of Engineers, United States Army, concurs in the estimate of flood-control benefit which was arrived at in consultation between representatives of the Bureau of Reclamation and the Corps of Engineers. He states, however, that this concurrence should not be construed as concurrence in the allocation of construction costs proposed in your Department's report. He questions the practice of allocating to flood control and certain other purposes, amounts equal to the capitalized value of the benefits to those purposes as not consistent with the desirable objective of making allocations in which each purpose shares equitably in the economies effected by combining the several functions in a multiple-purpose project. He directs attention to the fact that current studies of the Federal Interagency River Basin Committee are expected to lead to adoption of mutually acceptable principles for benefit cost determination and cost allocation.

In his comments on the report, the Chairman of the Federal Power Commission states that, upon the basis of the regional director's estimates of benefits and costs, the project is well justified. He makes the further comment that the estimated aggregate power revenues and the repayment to be made by the water users would be adequate to cover the total reimbursable costs of power and irrigation and operation, maintenance and replacements, provided the interest on investment allocated to commercial power is not returned as interest to the United States but is applied toward repayment of irrigation costs. As noted in your letter, however, the Commission expresses the view that the use of power revenues and the treatment of the interest in connection therewith for assistance to irrigation, as proposed in your report, is not in the long-range public interest. Noting that the report recommends allocation of not to exceed 85,000 acre-feet of active capacity of the reservoir to municipal and other miscellaneous purposes, in addition to that set aside for the Grays Lake replacement, the Commission points out that encroachment on the dead storage to provide any part of this water supply would impair the values assigned to power in the report. The Chairman of the Federal Power Commission suggests that, prior to the time the project reaches the construction stage, consideration be given to the possible construction of a regulating reservoir downstream from the site of the Palisades project. He states that such a reservoir would permit greater flexibility in operation of the Palisades power plant and larger releases from the Palisades Reservoir during winter months in the interest of power and further, that power might also be produced in connection therewith.

As on numerous other occasions in commenting on proposed reclamation projects, the Secretary of Agriculture questions the so-called national income approach in evaluating both direct and indirect irrigation benefits, which results in a material overstatement in the amount of these benefits because of the inclusion of certain labor and capital costs as benefits. With respect to the winter water savings, he directs attention to the fact that data on estimated cost to private water users for drilling wells at their own expense, are not given in the report or considered as part of the construction cost of the project and, therefore, do not enter into the calculations showing the economic justification of the project, although they are real costs which must be incurred if the proposed project is to be feasible. He states that it is not possible to determine from the information in the report what effect correction of procedural errors in computing benefits and costs

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would have with respect to the conclusion as to the economic justification of the project as a whole or its irrigation component The Secretary of Agriculture also expresses the view that further expenditure of Federal funds on this project should be made conditional upon execution of water-saving contracts satisfactory to the Secretary of the Interior and that the Federal Government should not be put in a position of having to negotiate such contracts after it has committed itself to major project expenditures He further suggests that the proposed water-savings contracts might well go beyond the elimination of water diversions and, at least in some cases, include provisions for increasing farm irrigation efficiencies

With respect to the proposed allocation of $2,805,000 of the project cost to fish and wildlife, the President in his veto message on the Vermejo project dated August 23, 1949, stated his policy on nonreimbursable allocations for the preservation and conservation of fish and wildlife in connection with water resources development projects. In that message he pointed out that, where such nonreimbursable allocations are permitted by law, the practice has been to restrict them in scope to the prevention of loss of and damage to wildlife He further stated that the creation of new wildlife areas is normally a part of the regular program of the Fish and Wildlife Service.

As you know, the President fully endorses the principle that each such Federal improvement should provide, wherever possible, for the coordinated development of all aspects of our natural resources Certainly the preservation and propagation of fish and wildlife is an important aspect of such developments.

It is recognized that the proposed construction of Palisades Reservoir affords an opportunity to permit the stabilization of Grays Lake through provision of substitute storage for irrigation water for the Fort Hall Indian irrigation project thereby promoting the development of the wildlife potentialities of the Grays Lake area While such a facility might be a desirable improvement, the project report shows that the construction of the Palisades Reservoir would not result in any net loss or damage to fish and wildlife at Grays Lake, but would actually constitute the establishment of a new wildlife area The allocation proposed for fish and wildlife in the Palisades project would, therefore, represent a departure from the President's policy as expressed in the Vermejo veto message The need for such a development should be presented, justified, authorized and financed as a separate feature and not treated as a nonreimbursable allocation at the expense of the Palisades project You are advised, therefore that the allocation to fish and wildlife of any part of the cost of the Palisades project beyond that required for the prevention of loss or damage to fish and wildlife on the Snake River due to this project would not be in accord with the program of the President at this time. This statement is not intended to indicate in any way the relationship to the President's program of the provision of a fish and wildlife management area if authorized and financed as part of the activities and programs of the Fish and Wildlife Service It is intended only to point out that until the issue regarding the relationship of such a purpose to water resources development projects is settled nonreimbursable allocations to fish and wildlife should not be used as a method to reduce the financial responsibilities of the beneficiaries of a reclamation project.

In his veto message on the Vermejo project, the President also made the observation that recreation is not currently authorized as a purpose of water resources development against which nonreimbursable allocations of cost may be made This subject was also discussed in Director Pace's letters dated January 27 and February 1, 1950, regarding H R 1770 and the Columbia River Basin report, respectively, in which it was pointed out that many broad and controversial issues are involved in developing a uniform policy respecting recreation and that the matter is to be fully studied by the Water Resources Policy Commission The former letter also outlined an interim policy on recreation On the basis of the information available to the Bureau of the Budget, the proposal to charge off as a nonreimbursable expense $6,000,000 of the cost of the Palisades Reservoir as the recreational benefit to the Jackson Lake Reservoir does not seem to be justified or to conform with the interim policy While it would appear that the recreation value of Jackson Lake Reservoir would be enhanced by the stabilization of its level made possible by construction and operation of the proposed Palisades Reservoir, it seems to me that this result is entirely aside from the need and justification for the construction of the Palisades project as a reclamation project This view is supported by information furnished informally to the Bureau of the Budget by representatives of the Department of Interior indicating that Palisades Dam will be built to the same capacity regardless of its effect upon the recreational value of Jackson Lake Accordingly, the provision of recreational facilities and the allocation of construction costs thereto would be considered without objection only if limited to the scope and repayment provisions set forth in the interim recreation policy contained in Director Pace's letter to you dated January 27, 1950, regarding H R 1770

The repayment plan proposed in the report contemplates the use of the entire amount of the interest component of the commercial power revenues for aiding repayment of irrigation costs The President has neither approved nor disapproved such action from the standpoint of national policy Furthermore, while it is recognized that the Solicitor of the Department of the Interior had issued an opinion that the interest component on the power investment could be so applied, the President has not indicated agreement that the present law should be so interpreted He is reserving judgment on the issue pending the report of the Water Resources Policy Commission We cannot, therefore, at this time state whether such procedure would be in accord with the President's program

It is noted in your reply to the comments of the Federal Power Commission on the Palisades report that you include a memorandum entitled "The Interest Component Feature of the Comprehensive Plan for the Columbia River Basin" which was presented in justification of the Columbia Basin account This statement conveys the impression that the President's approval of the establishment of the Columbia Basin account as an accounting tool to record repayments of the capital investment includes approval of the basin-wide use of the interest component to assist in repaying irrigation construction costs of any project covered by the plan This, of course, would be an erroneous interpretation of the President's position as outlined above Regardless of the question of the use of the interest component, however, any proposal to include the Palisades project in a Columbia

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In his letter of December 9, 1941, submitting to the Congress his authorizing report on the Palisades Dam project, Idaho (H Doc 457, 77th Cong , 1st sess), the Secretary of the Interior referred to the advice received from the Director of the Bureau of the Budget that it would be contrary to the program of the President to submit any estimate of appropriation for construction of the project until local interests have given satisfactory assurances to the Secretary of the Interior that they will eliminate the wasteful use of water in the area to be affected by the project It is evident from the reports before us that elimination of wasteful use of water in the area is still a critical matter upon which depends the effectiveness of the Palisades Reservoir in making available a reliable water supply for the Snake River Valley It would appear, however, that the annual water saving of 135,000 acre-feet can be realized only if the remaining 20 percent of the water users on the farmsteads above American Falls, can be persuaded to install wells at their own expense and if the water users organizations enter into appropriate water savings contracts with the Government There is a serious question whether accomplishment of the revised project, as contemplated in the report should not be made conditional upon execution of contracts satisfactory to the Secretary of the Interior Unless such agreements are obtained prior to beginning of construction of the dam, there is little doubt but that it will prove difficult, if not impossible, to realize the amount of water savings upon which the success of the project depends

I note that combinations of three different methods are used in determining cost allocations For the nonreimbursable functions such as flood control, joint costs are assigned equal to the capitalized value of the estimated annual benefits The balance of the joint costs for other functions—irrigation and power—is allocated on the basis of the average of the "priority of use" and "alternate justifiable expenditure" methods of allocation On the basis of the information available to us, we are unable to determine what the effects of other methods of computation of cost allocations would be on the economic feasibility of the project It is understood that the Federal Interagency River Basin Subcommittee on Benefits and Costs has recently developed a proposed manual for use by all agencies for economic analysis of river basin projects and that this manual is now being circulated for comment. The subcommittee recommendations contemplate distribution of joint costs in a manner which will provide for proportionate sharing of the savings resulting from multiple-purpose development

In the absence of accepted methods of allocating costs, we can only question the justification for the procedure adopted in connection with the proposed Palisades project It would appear, however, that by the very nature of multiple-purpose projects, all purposes should participate in the savings resulting from the combination of several plans It would therefore, seem highly important that an agreement be reached at an early date on mutually acceptable methods for determination of benefits and cost allocations if confusion and misunderstandings are to be avoided

Accordingly, you are advised that, while there would be no objection to the submission of the proposed report to the Congress authorization of the project would be without objection only if, in accordance with above comments

(*a*) The allocation to fish and wildlife is limited to that part of the cost of the Palisades project required for the prevention of loss or damage to fish and wildlife on the Snake River due to the construction of this project;

(*b*) The provision of recreational facilities and the allocation of costs thereto are limited to the scope and repayment requirements set forth in the interim recreation policy contained in Director Pace's letter to you of January 27, 1950,

(*c*) It is understood that the use of the interest component for aiding the return of irrigation costs in the eventual repayment plan for the Palisades project will be dependent on the policy established after the President's Water Resources Policy Commission has reported; and

(*d*) Accomplishment of the expanded project is made conditional upon execution of the necessary water-savings contracts to the satisfaction of the Secretary of the Interior

Sincerely yours,

F J LAWTON, *Director*

LETTER FROM THE SECRETARY OF THE INTERIOR TO THE PRESIDENT OF THE UNITED STATES

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D C , March 4, 1950

The PRESIDENT,
The White House

(Through the Bureau of the Budget)

MY DEAR MR PRESIDENT On July 19, 1949, former Secretary Krug submitted this Department's supplemental report on the Palisades Dam and Reservoir project to you for advice as to the relationship of the proposals contained therein to your program

Copies of the report were sent also to officials of the States of Idaho, Wyoming, and to the Secretary of the Army, Secretary of Agriculture, the Chairman of the Federal Power Commission, and the Director, Office of Domestic Commerce, Department of Commerce for their information and such comments as they wished to make, although it was our view that clearance was not required as a matter of law in the circumstances of this case Copies of most of these comments have heretofore been made available informally to the Bureau of the Budget, but this presentation will complete the formal presentation of all of them The Governor of the State of Idaho did not submit comments on the report However, at the hearings before congressional committees on H. R. 5506 and S 2195, companion bills which among other things would reauthorize the Palisades Dam and Reservoir, a representative of the Governor testified in favor of the project

After consideration of all the comments received, I find no need for revising this Department's report. In his comments, the Chairman of the Federal Power Commission questioned the use of the interest component of the power revenues for the purpose of assisting in the

repayment of irrigation costs There is enclosed, also, a copy of our reply giving the justification for the position taken in the report, this being but a continuation of present practice of this Department on the basis of the present Federal reclamation laws

H R 5506 and S 2195, companion bills which would reauthorize the Palisades project in accordance with our supplemental report have been considered at hearings before subcommittees of the House Public Lands Committee and the Senate Committee on Interior and Insular Affairs and both committees have made favorable reports on the bills. The chairmen of these committees have requested this Department to submit its further views on these bills The draft of our proposed report on those bills is now also before the Bureau of the Budget for determination of its relationship to the program of the President

I would appreciate having your views as to the relationship of the supplemental report on the Palisades project to your program so that I can advise the Congress accordingly

Sincerely yours,

OSCAR L CHAPMAN,
Secretary of the Interior

LETTER FROM THE STATE OF WYOMING

STATE OF WYOMING,
STATE ENGINEER'S OFFICE,
Cheyenne, August 6, 1949

MR WESLEY R NELSON,
Acting Commissioner, United States Department of the Interior, Bureau of Reclamation, Washington 25, D C

DEAR MR. NELSON This will acknowledge receipt of your letter of July 8, 1949, including two copies of your supplemental report on the Palisades Dam and Reservoir project in Idaho One of these copies is being mailed to Mr Clifford Hansen at Jackson, Wyo

Wyoming water rights, and in particular its right to the use of an equitable portion of the water of Snake River unappropriated at this time, would be seriously jeopardized by construction of this project in the absence of a compact or agreement with Idaho on division of the water

Representatives of the two States have recently met and entered into an agreement that must be drafted into the form of a compact and approved by the representatives of the States, the legislatures and governors of the States, and consented to by the Congress of the United States before it becomes effective

With the assistance of Mr R J Newell, Federal representative on the Snake River Compact Commission, and the legal and engineering staff of the Bureau of Reclamation, I feel sure that a satisfactory compact will finally be approved

My only further comment is to the effect that your report appears to be complete and comprehensive, and seems to be ample evidence of the necessity for construction of Palisades Reservoir in the overall development plan for the Columbia River Basin

Yours very truly,

L C BISHOP, *State Engineer*

LETTER FROM THE OFFICE OF THE CHIEF OF ENGINEERS, UNITED STATES ARMY

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, November 23, 1949

The Honorable the SECRETARY OF THE INTERIOR

DEAR MR SECRETARY Reference is made to your letter of recent date from the Acting Commissioner, Bureau of Reclamation, inclosing for my information and comment, copies of your supplemental report, Palisades Dam and Reservoir project, allocation and repayment of costs.

The Palisades project, as initially authorized in 1941, provides for a multiple-purpose reservoir on Snake River in eastern Idaho and western Wyoming for conservation of supplemental irrigation water supply, hydroelectric power generation and distribution, and flood control An earth-fill dam 260 feet high would create a total storage capacity of 1,400,000 acre-feet of which 1,200,000 acre-feet would be used jointly for flood control and irrigation purposes in coordination with other reservoirs on this stream and 200,000 acre-feet would be dead storage. Power would be dependent upon water releases for irrigation and downstream rights Provisions are also included for installation of recreational facilities and improvements for fish and wildlife The cost of the project as now planned is estimated at $76,601,000 of which $54,537,400 is for the dam and reservoir, $21,565,600 is for power generation and transmission, $350,000 is for fish and wildlife, and $148,000 is for recreation The corresponding annual cost is estimated at $3,548,355 and annual benefits at $4,871,215 which results in a ratio of benefits to cost of 1 37

Among the benefits estimated to accrue as a result of the project are $899,330 in the interests of flood control. The amount of $899,330 was arrived at in consultation between representatives of the Bureau of Reclamation and the Corps of Engineers, and I am pleased to advise you that I concur in that estimate as the amount of flood-control benefit to be expected if the project is operated in accordance with the plan outlined in appendix A of your report I am also able to advise that the Palisades project as planned fits in with the comprehensive plan for the Columbia River Basin recently reported on by the Department of the Army

My concurrence in the estimate of flood-control benefits and in the suitability and desirability of the project should not be construed, however, as concurrence in the allocation of costs proposed in your report. The practice of allocating to flood control and certain other purposes amounts equal to the capitalized value of the benefits to those purposes is not consistent with the desirable objective of making allocations in which each purpose shares equitably in the economies effected by combining the several functions in a multiple-purpose project. The Corps of Engineers and your Department are now participating, through the Federal Inter-Agency River Basin Committee, in studies which are expected to lead to adoption of mutually acceptable principle for benefit cost determination and cost allocation.

Opportunity to review this report is appreciated

Sincerely yours,

R C CRAWFORD,
Major General, Acting Chief of Engineers.

LETTER FROM THE DEPARTMENT OF AGRICULTURE

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, November 21, 1949.

The honorable the SECRETARY OF THE INTERIOR.

Dear MR. SECRETARY: This is in reply to your request of July 8, 1949, for the views of this Department on the Bureau of Reclamation's supplemental report on Palisades Dam and Reservoir project, Idaho.

This supplemental report for the most part contains a revision of the estimates of costs and benefits for the Palisades project originally authorized in December 1941. The present proposal calls for enlarging and adding to the purposes which the project will serve. Apparently the benefits to irrigation water users under the revised plan are about the same as under the original proposal. Due largely to increased construction costs the allocation of costs to irrigation is now $21,724,000 as compared with $10,216,000 in the 1941 proposal. However, the plan calls for only $10,305,000 of the present irrigation cost allocation to be repaid by water users. The remainder is to be repaid out of power revenues. This results in proposed repayments by water users that do not appear excessive in relation to their prospective financial ability.

The use of the so-called national income approach in evaluating both direct and indirect irrigation benefits results on a material overstatement in the amount of these benefits because of the inclusion of certain labor and capital costs as benefits. Although the amount of these costs is not given, it is noted that an acre-foot of water was valued at $9.17 in estimating irrigation benefits (p. 18) and at only $2 in determining project financial feasibility (p. 30).

We note that in order to make the Palisades project feasible from the standpoint of yield of irrigation water, it is necessary to eliminate winter diversions in the upper part of the valley. The present practice is for water users to divert water in the winter for domestic and livestock use. If farm operators are to stop this practice they must drill deep wells at considerable expense to obtain needed water. The Bureau of Reclamation plan requires that the water users will eliminate winter diversions at their own expense. No data are given on the cost to private water users except that it will be considerable. Such costs are not considered as a part of the construction cost of the project and therefore do not enter into the calculations showing economic justification of the project. Yet these are real costs which must be incurred if the proposed project is to be feasible.

It is not possible to determine from the information in the report what effect correction of these procedural errors in computing benefits and costs would have with respect to the conclusion as to the economic justification of the project as a whole or its irrigation component.

The water conservation aspect of the Palisades proposal is highly complex. Cyclic storage and integrated operation of Palisades, Jackson Lake, and American Falls are involved. The conservation of water through the elimination of winter diversions for stock water seems to be a step in the right direction. Our experience in soil conservation districts in the upper Snake River Basin indicates that further very significant water savings could be accomplished through

increasing the farm water application efficiencies It seems that the proposed water-saving contracts with irrigation enterprises in the upper basin might well go beyond the elimination of winter diversions, and, at least in some cases, include provision for increasing farm irrigation efficiencies

Further expenditure of Federal funds on this project should be made conditional upon the execution of contracts satisfactory to the Secretary of the Interior to assure the saving of 135,000 acre-feet of water which is essential to the success of the project The Federal Government should not be put into the position of having to negotiate such contracts after it has committed itself to major project expenditures

The reservoir to be created by a dam some 260 feet high will be about 20 miles long, average 1½ miles in width, and submerge about 16,000 acres at full capacity The land in the reservoir site consists of a narrow valley used for agricultural purposes together with fairly steep adjacent slopes which are wooded The slopes on both sides of the bottomlands are largely within national forests The Caribou National Forest lies west of the Snake River, the river being the national forest boundary for nearly the entire length of the reservoir site The reservoir site would include a small strip of hilly national forest land varying in width, but perhaps averaging about three-eighths of a mile along the west side of the reservoir An existing Forest Service road would be submerged for almost the entire length of the reservoir site Hoffman recreation area, a small developement in the reservoir site, will be dismantled when the reservoir is developed

The western boundary of the Targhee National Forest follows roughly the eastern boundary of the reservoir, usually just above the reservoir line but occasionally below it to include a few acres of the reservoir site

The Forest Service has been in touch regularly with the regional office of the Bureau of Reclamation concerning Forest Service interests connected with development of the reservoir Plans of the Bureau include relocation of the Forest Service road on the west side of the reservoir The tentative location and standards of construction are satisfactory to the Forest Service Accessibility to land on the east side of the reservoir in the Targhee National Forest will be adequately provided by the proposed reestablishment of State Highway No 29 presently in the valley to a new location above high water line

The reports by the Fish and Wildlife Service and National Park Service are considered adequate The National Park Service recommends one major recreational development and several possible minor developments along the reservoir site The major development near the west end of the dam would be within the Caribou National Forest The minor areas would be within or adjacent to the national forest The estimated cost of recreational facilities is $148,000 The Forest Service and Bureau of Reclamation have entered into a general memorandum of understanding which provides a policy guide pertaining to the development and administration of recreational facilities at Bureau of Reclamation reservoirs that are wholly or substantially within the boundaries of national forests Recreational developments at Palisades Reservoir will be within this category.

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Sincerely,

LETTER FROM T

Hon WESLEY R NELSO
Acting Commissioner,
Bureau of Reclam

DEAR MR NELSON I
mitting our comments on
Dam and Reservoir Pro
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The relationships between the regional offices of the Forest Service and Bureau of Reclamation have been close and are believed to be mutually satisfactory in the development of plans for the Palisades Reservoir

We have a few comments on the report of the Fish and Wildlife Service, which is appended to the report of the Bureau of Reclamation

Recommendation No 9 of this report states, "Management of the fish and wildlife resources on the Palisades Reservoir area be vested in the States of Idaho and Wyoming" Since some national forest lands will be included in the reservoir "area," with respect to these lands, we believe the policy should be modified to indicate that the Forest Service should still have primary responsibility for production the respective States for protection, and the States and Forest Service joint responsibility for harvesting the resources

Because of the close association of recreational values which will exist between the reservoir and the adjoining national forest lands and the general responsibility of the Forest Service for management of habitat for production of fish and game in the national forests, we also suggest the inclusion in recommendation No 7 of the Forest Service in the list of represented agencies

We appreciate the opportunity afforded us of reviewing this report.

Sincerely,

K. T HUTCHINSON, *Assistant Secretary.*

LETTER FROM THE DEPARTMENT OF COMMERCE

DEPARTMENT OF COMMERCE,
OFFICE OF DOMESTIC COMMERCE,
Washington, D C, December 16, 1949

Hon WESLEY R. NELSON,
Acting Commissioner, United States Department of Interior,
Bureau of Reclamation, Washington, D C

DEAR MR. NELSON: I must apologize for our tardiness in submitting our comments on the supplemental report entitled "Palisades Dam and Reservoir Project, Idaho—Allocation and Repayment of Costs"

Our field offices have received this report and to our knowledge have no objections

The United States Coast and Geodetic Survey have noted the statement on pages 483–487 concerning the need of quadrangle topographic surveys, river, dam site, and reservoir surveys. They comment further

> The maps submitted with the report on the Palisades Dam do not indicate that geographic positions (that is latitude and longitude) or elevations above sea level on which to base contours, were used The coordination of this project with others proposed for the Columbia Basin is not evident because of lack of these fundamental data
>
> The United States Coast and Geodetic Survey is prepared to extend control surveys to unmapped areas within the limits of appropriations available to us Such needs should be made known to us so that the necessary field surveys and processing of field notes can be accomplished When the data resulting from these accurate control surveys are available their use for topographic mapping,

and the mapping of river, dam site, and reservoir sites makes for a coordination which facilitates analysis and study of large scale engineering projects such as those proposed for the Columbia Basin.

Sincerely yours,

H. B. McCOY, *Director*

LETTER FROM THE SECRETARY OF THE INTERIOR TO THE FEDERAL POWER COMMISSION

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D C, March 4, 1950

Hon NELSON LEE SMITH,
Chairman, Federal Power Commission,
Washington, D C

MY DEAR MR SMITH Thank you for your letter of January 17, 1950, to Commissioner Straus, in which you comment on our report on the Palisades Dam and Reservoir project in Idaho

I note that in your letter you express your view that the use of power revenues and the treatment of the interest in connection therewith for assistance to irrigation, as proposed in the report, is not in the long-range public interest

In this connection, I have attached for your consideration a statement recently prepared on the subject of the application of the interest component in assistance to irrigation My thought in doing so is that perhaps, in your consideration of the matter, you may not have taken fully into account some of the aspects of this practice as they pertain specifically to the Department of the Interior, or the fact that the administration on more than one occasion, as shown in the statement, has sanctioned this procedure which, as you know, is provided for in reclamation law

Most recently, in his letter dated February 1, 1950, the Director of the Bureau of the Budget stated that the President approves the establishment of a Columbia Basin account including provisions for the application of the interest component to irrigation subsidy to the same extent that it can be applied under reclamation law. There is no question that the use of the interest component thus applied is appropriate under existing law. Director Pace points out that the underlying policy is one of the matters on which recommendations are expected from the President's Water Resources Policy Commission. Director Pace recommends enactment of authorization of the basin account by the Congress as an amendment to H R 5472 The draft of the proposed amendment approved by the Bureau of the Budget, which provides for authorization of the Columbia Basin account, includes the following language:

* * * In setting rates for the sale of power and energy, the Secretary of the Interior may take into consideration, for all properties covered by the Columbia Basin account, the application of interest on the power investment to the return of costs properly allocable to purposes other than power, but assigned for return from power revenues, to the same extent that application of interest on power investment to the return of such costs may be taken into consideration under the Federal Reclamation Laws

It will be noted that under Office, any future change i applicable, automatically, t

Sincerely yours,

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The principle of applyin to effect irrigation costs th well established under the

It will be noted that under the language approved by the Executive Office, any future change in reclamation law on this point would be applicable, automatically, to the Pacific Northwest projects.

Sincerely yours,

OSCAR L CHAPMAN,
Secretary of the Interior.

THE INTEREST COMPONENT FEATURE OF THE COMPREHENSIVE PLAN FOR THE COLUMBIA RIVER BASIN

The comprehensive plan for the Columbia River Basin provides for the pooling of power revenues and charges in a Columbia Basin account One purpose of this account is to make possible the establishment of uniform power rates on a basin-wide basis Another purpose is to make possible the uniform application of the interest component feature of the Federal reclamation laws on a basin-wide basis The account would be credited with all power revenues from the projects covered by the plan, and charged with all costs of the project covered by the plan that are repayable from power revenues The costs, actual or estimated, charged to the account would be used to determine the rates payable by the power users The power revenues, actual or estimated, credited to the account would, after deducting the cost of the power facilities, be used in determining the extent to which financial aid could be extended to irrigation developments from power sources

Under the comprehensive plan the costs chargeable to the Columbia Basin account would comprise (1) the cost of the power facilities of the projects covered by the plan, and (2) so much of the cost of the irrigation facilities of the projects covered by the plan as exceeds the repayment ability of the water users Interest on the cost of the power facilities would also be computed at prescribed rates, and would be applied to the extent necessary against the excess irrigation costs referred to in item (2) above Since the plan contemplates that these excess costs will be substantially less than the interest component, the latter would be the controlling figure in practice The net result is that the power users would be required to pay the cost of all power facilities, plus interest on that cost

Application of the interest component on a basin-wide basis would mean that interest revenues from any power development covered by the plan could be used to offset reasonable deficiencies in the repayment ability of the water users on any irrigation development covered by the plan This would make it possible to undertake a number of economically justifiable projects which otherwise could not be initiated because the cost of the needed irrigation facilities is beyond the capacity of the water users to repay within a reasonable period of time Since power potentialities on these projects are either limited or entirely absent, the interest component from other projects within the basin must be looked to for the purpose of making good the difference between repayment capacity and irrigation costs

The principle of applying the interest component on power costs to offset irrigation costs that cannot be repaid by the water users is well established under the Federal reclamation laws Its legal basis

is expounded in an opinion of the Solicitor of the Department of the Interior, dated September 29, 1944 (M 33473), and a supplemental opinion dated September 10, 1945 (M 33473, supplemental) These opinions have been consistently adhered to by the Department, and have stood the test of searching scrutiny from the Congress and the public

Following the issuance of the foregoing opinions, the enemies of public power development unleashed a concerted attack upon the principle of using the interest component to aid irrigation development This attack resulted in the introduction of several bills designed to repeal this feature of the Federal reclamation laws, the most notable of which was the Rockwell bill (H R 1886) in the Eightieth Congress Extensive consideration by the Congress led, first, to the watering down, and, second, to the pigeonholing, of the Rockwell bill, and all similar measures In view of the very careful study given this matter on both sides of the Congress, the defeat of the Rockwell bill may very appropriately be considered as evidencing congressional ratification of the interest component principle

The soundness of that principle has also been recognized by the President On February 17, 1947, he expressly approved its use on the Central Valley project, where a situation analogous to that within the Columbia Basin exists, by a letter to the Secretary of the Interior reading as follows

> I have examined your report of December 3, 1946, on the allocation of costs and financial feasibility, Central Valley project, California, in which it is proposed that interest on the investment allocated to power be used for repayment of irrigation charges beyond the ability of water users to repay I have no objection to your submitting the report to Congress for its consideration (H Doc 140, 80th Cong)

In addition, the President recommended to the Congress, in a message of January 12, 1948, that Folsom Dam be made a part of the Central Valley project for the very purpose, among others, of permitting the application of the interest revenues from the power plant at that dam to the excess costs of irrigation facilities within the Central Valley area The President stated.

> The transfer to the Bureau of Reclamation would assure that Folsom Dam and its important related developments would be operated in coordination with other Federal conservation structures in the Central Valley to yield the greatest possible benefits Power produced at the Folsom Dam would be used as a second source of energy for the Delta-Mendota pumping plant and for other irrigation pumping The income from the disposition, under Federal reclamation laws, of the power there produced would assist not only in amortizing the cost of the Folsom Dam and power plant, but also in paying an appropriate share of the cost of irrigation canals and other works needed to distribute water from Folsom Reservoir to irrigation districts, cities, and suburban areas Unless this income from power revenues is provided for in accordance with established practice under reclamation law, many related developments proposed in the Central Valley, particularly in the American River Basin and nearby areas of California, will not be financially feasible (H Doc 496, 80th Cong)

Speaking at Tulsa, Okla, on September 29, 1948, the President discussed the Rockwell bill in the following terms.

> The Republican Eightieth Congress attacked our reclamation and public power policies The Republican House passed a bill which would have cut out six of the largest reclamation projects and would have forced Federal power prices up as much as 48 percent*

The interest component principle is now in wide use by the Department of the Interior It is being applied to the pay-out requirements

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of more than a dozen existing projects and on several recently authorized projects Moreover, in the Missouri Basin and the Central Valley of California it is already being employed on a basin-wide basis

The principle has also won wide public acceptance The struggle over the Rockwell bill served to give it broadspread publicity Most of the influential people who were then in opposition to it now realize their earlier misjudgment, and are in full support of the principle For example, at a meeting of the Northwest Utilities group held in Tacoma, Wash , on January 10, 1950, there was outspoken support for the Columbia Basin account, including its interest component feature.

The broad recognition accorded the practice of using the interest component on power to offset deficiencies in repayment capacity on irrigation must be attributed to the inherent soundness of that practice It relieves the power users from the obligation of bearing a double burden, since otherwise they would be required to pay both the excess irrigation costs and the interest on the power investment, and leaves them in effect only with the equitable obligation of paying the excess costs or the interest, whichever is the greater. At the same time, it provides effective aid to irrigation from power revenues by making the interests on the power investment available to supply deficiencies in the repayment ability of the water users

Continuance of the reclamation program depends upon the bridging of the gap between high construction costs and per annum farm returns If the interest component is not used for this purpose, some alternative must be found, or agricultural development in the West will grind to a halt One possible alternative would be to increase power rates to a level that would cover the payment of interest in addition to, and not as a substitute for, the excess irrigation costs. Not only would this be unfair to the power users, but also it would impede the development of public power and thereby play into the hands of the private utilities The effect would be particularly bad in other areas of the West where, though receding, there is still opposition to public power In some areas public power rates would have to be increased to a point above the competitive level if the interest component principle were to be abandoned. A second alternative would be further to lengthen the repayment periods accorded the water users by the term of years necessary to provide for the liquidation of all irrigation costs. This alternative has been generally opposed by the Bureau of the Budget, and would tend to have the same net fiscal effect as continuing to use the interest component for aid to irrigation.

The United States has consistently recognized, ever since the passage of the Reclamation Act in 1902, that the need of the West for agricultural development justified the Government in providing interest-free money for irrigation, on repayment terms calculated to promote the establishment of economic farm homes The interest component principle merely means that the interest which the United States is willing to forego includes interest on investments in power facilities in those cases where, and only to the extent that, the ultimate goal of founding self-supporting farm communities cannot be achieved unless the power revenues are applied against a portion of the cost of the irrigation facilities covered by the same project or basin program

In this connection it should be borne in mind that the provision of subsidies by the general taxpayers for the prosecution of flood control, navigation, soil conservation, and various other conservation programs

is an established national policy Compared with these 100-percent subsidies, the financial aid given to irrigation under existing reclamation law is modest indeed From such a perspective, the interest component principle is a very small price to pay for continuance of the reclamation program

The propriety of applying this principle to the Columbia Basin is recognized in the Columbia Valley Administration bill (S 1645) advocated by the President Subsection 12 (g) of that bill provides that—

> Interest paid on advances used to pay costs allocated to revenue-producing purposes other than irrigation may be applied to reduce outstanding advances used to pay costs allocated to irrigation and assigned for repayment from other sources of revenue to the same extent that interest on the construction investment allocated to power may be used to repay costs allocated to irrigation and assigned for repayment to power revenues under the Federal reclamation laws (act of June 17, 1902, 32 Stat 388, and acts amendatory thereof or supplementary thereto)

This formula is identical with what would be accomplished under the Columbia Basin account

The interest component principle relates, and is understood by the Department of the Interior as relating, solely to the problems of financial feasibility which arise from the requirement of the Federal reclamation laws that irrigation and power costs shall be reimbursed in full to the United States This principle is not, and is not considered by the Department as being, a substitute for the economic justification of Federal reclamation projects.

The foregoing statements are evidenced by the Columbia Basin comprehensive plan itself, which recognizes in several places that individual projects are to be eligible for covering into the Columbia Basin account only if they meet proven public needs in a reasonable and sensible way. For example, the letter of transmittal from the Secretary of the Interior to the President, dated July 20, 1949, states that "through the medium of such a basin account irrigation projects which would be beyond the ability of the water users to repay in full but which are needed for a fully rounded basin economy could be undertaken without adverse effect upon power rates" Again, recommendation (5) of the plan declares that the Secretary of the Interior, in reporting on projects proposed for inclusion in the basin account, shall make findings, not merely with respect to engineering and fiscal feasibility, but also upon "the benefits to be realized from the construction of the project that are considered to justify its construction" This recommendation further provides that no project shall be covered into the basin account unless its inclusion is authorized by act of Congress Such an arrangement would afford a practical procedure whereby the Bureau of the Budget, the President, and the Congress could check the economic justification for each individual project with respect to which irrigation assistance from power revenues was proposed.

In short, the Department of the Interior would expect any project covered into the Columbia Basin account to conform to reasonable standards of economic feasibility, which would take into account such matters as the ratio of benefits to costs, the optimum use of the water and land resources involved, and the public need for the project.

LETTER FROM THE FI
TO THE BURE

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Mr MICHAEL W STRAUS,
Commissioner, Bureau of I
Department of the Inte

Subject Palisades Dam and I

DEAR MR STRAUS The c
supplemental report entitled,
Idaho—Allocation and Repay
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LETTER FROM THE FEDERAL POWER COMMISSION TO THE BUREAU OF RECLAMATION

FEDERAL POWER COMMISSION,
Washington 25, D. C, January 17, 1950.

Mr MICHAEL W STRAUS,
Commissioner, Bureau of Reclamation,
Department of the Interior, Washington 25, D. C

Subject. Palisades Dam and Reservoir Project, Idaho.

DEAR MR STRAUS. The comments herein with respect to your supplemental report entitled, "Palisades Dam and Reservoir Project, Idaho—Allocation and Repayment of Costs," dated June 17, 1949, and approved by the Secretary of the Interior on July 1, 1949, are transmitted in response to the letter from Mr Wesley R Nelson, Acting Commissioner, dated July 8, 1949, in which the Commission's comments were requested Transmitted with Mr Nelson's letter were copies of your report and copies of the report of the regional director, dated June 1949 The transmittal of these comments by the Commission is in accordance with the established procedures of the Federal Inter-Agency River Basin Committee

The Bureau's report presents a plan of construction primarily for supplemental irrigation water supply and flood control in the Upper Snake River Valley in Idaho and the generation of hydroelectric power incidental thereto, and for benefits to fish and wildlife and to recreation The plan of development as recommended in your report would consist of the construction of the Palisades Dam and Reservoir, a power plant at the dam, and transmission facilities, and provision of fish and wildlife facilities, including installations at Grays Lake, and recreation facilities at the Palisades Reservoir

The Palisades Reservoir would store water available for carry-over from years of above-average stream flow to years of below-average flow, together with whatever water may be saved by proposed elimination of present wasteful winter diversions Your report states that the operation of the Palisades Reservoir would result in providing suppplemental irrigation water for about 650,000 acres of land in the Upper Snake River Valley, in Idaho, and that the reservoir is expected to contribute substantially to the solution of an extremely complicated water-right problem and difficult water-use problems in that area With Palisades Reservoir in operation, it would become possible and desirable to maintain Jackson Lake Reservoir, in the Jackson Hole area, substantially at full level throughout the tourist season except during very dry years Fifty-five thousand acre-feet of storage capacity in the Palisades Reservoir would be made available to the Fort Hall Indian Reservation as replacement storage for that now received from Grays Lake which would then be established as a wildlife management area

The Palisades Dam would be constructed at a site on the Snake River about 8 miles west of the Idaho-Wyoming boundary The dam would be an earth and rock-fill structure with a maximum height above stream bed of 262 feet and crest length of 2,200 feet and would create a reservoir with gross storage capacity of 1,400,000 acre-feet, of which 1,200,000 acre-feet would be active capacity used

jointly for irrigation and flood control on the basis of runoff forecasts, and 200,000 acre-feet would be reserved as dead storage for power head. Tunnels in the left abutment of the dam would provide flood control outlet capacity and serve for penstock purposes for a power plant to be constructed at the site with an ultimate installed generating capacity of 112,500 kilowatts, operating under heads varying between 245 and 122 feet

The production of hydroelectric power at Palisades Dam would be entirely incidental to the operation of the reservoir for irrigation and flood control. However, the production of firm power would be possible because a certain amount of water would have to be passed through the reservoir during the winter to satisfy the prior storage right at American Falls Reservoir downstream The regional director's report indicates that, when operated in conjunction with the proposed power plant at the American Falls Dam, the Palisades power plant would have an average annual output of 521,400,000 kilowatt-hours, of which 411,800,000 kilowatt-hours would be salable, including 164,400,000 kilowatt-hours of firm energy The annual revenue from the sale of firm and secondary energy is estimated in the report to be $1,175,400 The rates assumed in the report as a basis for this estimate are 4 mills per kilowatt-hour for firm energy; 3 mills for irrigation pumping energy; and 2 mills for nonfirm energy The corresponding over-all average revenue would be 2 85 mills per kilowatt-hour

The above estimates of power, and of revenue from its sale, have been based upon the maintenance of 200,000 acre-feet of dead storage to assure the assumed minimum power head The reports make reference to a possible future demand for water for miscellaneous purposes, including municipal, and in this connection consider a maximum utilization of 85,000 acre-feet of storage space The reports do not attempt to give the answer at this time to that possible future problem The Commission staff points out that encroachment on the dead storage to provide any part of this water supply would impair the values assigned to power in the report

The Commission staff has not undertaken to comment on the methods used for the allocation of costs to the several purposes of the project It has, however, necessarily considered costs in relation to power which is the principal revenue-producing project function The estimated total cost of construction of the project given in your report and in the report of the regional director is $76,601,000 The allocations to flood control, recreation, and fish and wildlife are the same in the two reports The allocation in your report to irrigation is $198,400 less than in the report of the regional director, and correspondingly greater to power This amount is relatively inconsequential and since his report is in greater detail, the figures of the regional director are used in the discussion which follows.

The costs as shown in the regional director's report may be segregated as follows

Considered as nonreimbursable
Flood control
Recreation
Fish and wildlife
Subtotal

Reimbursable
Irrigation
From water users
From power
Power
Irrigation pumping pow
Commercial power
Subtotal

Total

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Irrigation
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Function	Direct costs	Cost allocated to function
Considered as nonreimbursable		
Flood control		$22, 733, 300
Recreation	$148, 000	6, 296, 000
Fish and wildlife	350, 000	2, 805, 000
Subtotal	498, 000	31, 834, 300
Reimbursable		
Irrigation		
From water users		10, 305, 000
From power		11, 419, 400
Power		
Irrigation pumping power		8 986, 500
Commercial power	21, 565, 600	14, 055, 800
Subtotal	21, 565, 600	44, 766, 700
Total	22. 063 600	76, 001, 000

The importance of power to the project is evidenced by the fact that it carries the largest allocation of the three principal functions and would be responsible for 77 percent of the reimbursable costs

Upon the basis of the regional director's estimates of benefits and costs, summarized as follows in table 9, page 28, of his report, the Palisades project is well justified

Function	Annual costs	Annual benefits	Ratio of benefits to costs
Irrigation	$344, 425	$1, 961, 000	2 35–1 00
Power	1, 434, 650	1, 621, 000	1 13–1 00
Flood control	899, 330	899, 300	1 00–1 00
Fish and wildlife	125, 015	125, 015	1 00–1 00
Recreation	244, 915	241, 915	1 00–1 00
Total	3, 548, 335	4, 871, 215	1 37–1 00

The annual costs in this table are computed upon the basis of amortization of the construction cost in 50 years at 3 percent interest, and include operation, maintenance, and replacements The Commission staff advises that, for purposes of benefit-cost analysis of the power function, it has utilized as a basis the power value, for the Pacific Northwest, arrived at cooperatively in the field by representatives of the Bonneville Power Administration, the Corps of Engineers, and the Commission On this basis the staff computes the value of the power benefits at Palisades, with 112,500 kilowatts installed as proposed, to be $1,564,500 or $129,850 in excess of the annual costs shown The actual revenues, however, which are shown as $1,175,400 in the reports, are substantially less than these estimates of benefits

The report shows that the estimated power revenues are sufficient to meet the costs to be paid out of power revenues, on the basis of payout proposed The Commission staff understands that this basis includes as costs, operation, maintenance, and replacements of power facilities, the payment of $8,986,500 allocated to irrigation pumping power in equal installments over a 56-year period, without interest, and interest on and amortization of the $14,055,800 allocated to commercial power over a 56-year period, with the interest element being utilized in the repayment of the $11,419,400 irrigation costs allocated to be paid from power revenues

The tabulations and discussion on pages 31 and 32 of the report indicate that the estimated aggregate power revenues over the assumed 56-year repayment period and the repayment to be made by the water users would be adequate to cover the total reimbursable costs of power and irrigation, amounting to $44,766,700, and operation, maintenance, and replacements, provided that the interest on investment allocated to power is not returned as interest to the United States

The Commission, in letter dated May 29, 1947, to the Bureau of the Budget in response to request for its views relative to H R 1886 and H R 1977, Eightieth Congress, bills to amend the Reclamation Act of 1939, said

> The Commission is of the opinion that the public interest will best be served if the rates are fixed so as to produce revenues sufficient to cover the costs contemplated by H R 1977, except that the interest element in the power rate should not be used to amortize irrigation features until after the allocated cost and interest applicable to power have been recovered

The Commission understands that there is a demand in the area for the beneficial services that the Palisades project would provide The Commission doubts, however, that the use of power revenues and the treatment of interest in connection therewith, as proposed in your report, is in the long-range public interest

With regard to the power features of the project the Commission staff reports that it is in substantial agreement with the regional director's estimate of the amount of energy available at the Palisades power plant on the basis of the proposed schedule of reservoir operation for the primary purposes of irrigation and flood control The staff also advises that its studies show the initial installation should be of the order of 112,500 kilowatts proposed The staff believes that there would be several advantages in an installation consisting of three 37,500-kilowatt units as compared with five 22,500-kilowatt units. It suggests that consideration be given to the larger capacity units and to the desirability of making provisions for the subsequent addition of a fourth power unit

The staff also suggests that, prior to the time that the project reaches the construction stage, consideration be given to the possible construction of a reregulating reservoir downstream from the site of the Palisades project Such a development downstream would permit greater flexibility in the operation of the Palisades power plant and larger releases from the Palisades reservoir during winter months in the interest of power Power might also be produced in connection with the reregulating reservoir The Commission would be glad to have its staff confer with representatives of the Bureau of Reclamation in order to consider these suggestions in greater detail

The opportunity to review the report of your Department on the Palisades Dam and Reservoir project is appreciated

Sincerely yours,

NELSON LEE SMITH,
Chairman

LETTER

LETTER FROM THE
TO THE PRESIDE

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The PRESIDENT,
The White House
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MY DEAR MR PRESIDENT
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Reservoir project, which I a
July 1, 1949

The report deals with the
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operation of the reservoir for
regulations prescribed by the

Unless you have objection,
Dam and Reservoir will be t
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Sincerely yours,

LETTER FROM THE
TO THE SECRET

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The SECRETARY OF THE INTE

SIR This is my supplementa
under the Federal reclamation
and Reservoir project, Idaho
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The project was authorized
report and findings dated Dece

LETTER FROM THE SECRETARY OF THE INTERIOR TO THE PRESIDENT OF THE UNITED STATES

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D C, July 19, 1949

The PRESIDENT,
The White House
(Through the Bureau of the Budget).

MY DEAR MR PRESIDENT Enclosed is a supplemental report prepared by the Bureau of Reclamation on the Palisades Dam and Reservoir project, which I approved and adopted as my report on July 1, 1949

The report deals with the allocation and repayment of costs of the authorized multiple-purpose Palisades Reservoir which is to be built on the Snake River in southeastern Idaho The estimated cost of the project at price levels prevalent in January of this year is $76,601,000 Having regard for the benefits accruing to the various purposes, I find that, of the total cost of the project, $22,733,300 should be allocated to flood control, $6,296,000 should be allocated to recreation, and $2,805,000 should be allocated to the preservation and propagation of fish and wildlife, all of which should be nonreimbursable The balance of the construction costs can be repaid by the water and power users and should properly be allocated as follows: to irrigation $21,526,000, to irrigation pumping power, $9,063,900, and to commercial power, $14,176,800 I find that the irrigation water users can and should repay a maximum of $10,350,000, over a 40-year repayment period, and that the balance of the reimbursable costs can be repaid, under the reclamation laws, out of power revenues

The allocation to flood control has been made following consultation with the Chief of Engineers, Department of the Army, and the operation of the reservoir for flood control will be in accordance with regulations prescribed by the Secretary of the Army

Unless you have objection, the enclosed report on the Palisades Dam and Reservoir will be transmitted to the Congress for appropriate action

Sincerely yours,

J. A KRUG,
Secretary of the Interior

LETTER FROM THE BUREAU OF RECLAMATION TO THE SECRETARY OF THE INTERIOR

DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
Washington 25, D C, June 17, 1949

The SECRETARY OF THE INTERIOR.

SIR This is my supplemental report, findings, and recommendations under the Federal reclamation laws with respect to the Palisades Dam and Reservoir project, Idaho. My report is based on the accompanying report of the regional director, dated June 1949

The project was authorized initially in 1941 by the Secretary's report and findings dated December 9, 1941 (H Doc 457, 77th Cong ,

1st sess), under the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat 1187).

The dam and related works as now proposed are essentially the same as those initially authorized The reservoir will have a total active capacity of 1,200,000 acre-feet The active capacity will be used jointly for irrigation and flood control under a plan of operation worked out by the Bureau with the Corps of Engineers Its use for irrigation purposes will result in providing supplemental irrigation water for about 650,000 acres of land in the upper Snake River Valley Having regard for the present plan with respect to flood-control operations, it is proposed to increase the capacity of the outlet works of the dam to permit greater flexibility in operations It is proposed, also, to increase the minimum power head and, also, the maximum power installation, the latter to be approximately 112,500 kilowatts In addition, it is proposed, by using Palisades capacity, to replace Grays Lake irrigation storage to permit the restoration of Grays Lake to its natural state, thereby increasing its usefulness as a wildlife management area Through coordination of the irrigation operation of Palisades Reservoir with that of the existing Jackson Lake Reservoir in Jackson Hole, Wyo , it will be possible to stabilize the level of Jackson Lake and thereby greatly to enhance the recreational value of that famous scenic area in the foreground of the Grand Tetons The total cost of construction of the project estimated as of January 1949 is $76,601,000

Of these estimated costs, it is proposed that, having regard for the benefits to accrue to these various purposes, there be allocated on a nonreimbursable basis the following amounts

To flood control	$22, 733, 300
To recreation	6, 296, 000
To fish and wildlife	2, 805, 000

The balance of the estimated construction costs will be reimbursable and is proposed to be allocated as follows:

To irrigation	$21, 526, 000
To irrigation pumping power	9, 063, 900
To commercial power	14, 176, 800

There is expected to be some demand for water for miscellaneous purposes but no present space allocation is proposed for such purposes, though it is proposed there be recognition that a maximum of 85,000 acre-feet of space may be used There is recognition, also, of the fact that an increased allocation to flood control may be found later to be justified, and of the need for adjusting the allocations to reimbursable costs when the actual reimbursable costs are determined

It is now estimated that of the reimbursable construction costs allocated to irrigation a maximum of $10,305,000 can and should be repaid by the water users if the repayment period remains at 40 years A higher amount should be required to be repaid if that period is lengthened . The balance of the costs allocated to irrigation is expected to be repaid out of power revenues Power revenues will be sufficient to return all costs properly allocated to commercial power with interest and to meet the irrigation costs assigned for repayment through power revenues, the latter to be met by the application of the interest component and of such additional power revenues as may be required.

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I concur in and adopt the recor
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I recommend that you appro
supplemental report for present
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report of December 9, 1941, by v
ized and since the irrigation as
be changed by this supplemen
procedure of section 1 of the 19
is inapplicable

Respectfully,

Approved and adopted July

The success of the project is dependent on having continued assurances that an average annual water savings of 135,000 acre-feet will be realized This is expected to be accomplished by means of contractual arrangements with the water users of the upper Snake River Valley whereby they will agree to curtail certain wasteful winter water diversions Tentative commitments on this matter have been given by resolutions of the governing bodies of the interested water users' organizations These are regarded as sufficient to justify initiation and continuation of construction, but it may be desirable to have some additional means of bringing about the translation of these commitments into contractual assurances before the project is completed

I concur in and adopt the recommendations of the regional director, and in particular, the recommendations set out in part V of his report

I recommend that you approve and adopt this as your proposed supplemental report for presentation to the President and the Congress for appropriate action Since the report is supplemental to the report of December 9, 1941, by which the project was initially authorized and since the irrigation aspects of the major structure will not be changed by this supplemental report, it is concluded that the procedure of section 1 of the 1944 Flood Control Act (58 Stat 887) is inapplicable

Respectfully,

MICHAEL W STRAUS,
Commissioner

Approved and adopted July 1, 1949

J A. KRUG,
Secretary of the Interior.

UNITED STATES DEPARTMENT OF THE INTERIOR
JULIUS A KRUG, *Secretary*

SUPPLEMENTAL REPORT
PALISADES DAM AND RESERVOIR PROJECT
IDAHO

BUREAU OF RECLAMATION
MICHAEL W STRAUS, *Commissioner*

REGION I
R J NEWELL, *Regional Director*

Boise, Idaho, June 1949

XXXI

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	Present plan and estimated cost	3
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Grays Lake wildlife management area, Idaho	Facing	6

APPENDIX

Flood control

Letter from Commissioner Straus to Lt Gen R A Wheeler, of December 31, 1947, transmitting for approval the operating plan and the estimates of flood-control benefits to Palisades Reservoir under the plan — 28

Letter from Lt Gen R A Wheeler to Commissioner Straus, approving the operating plan and the resulting flood-control benefits — 29

The approved operating plan for Palisades Reservoir — 30

Fish and wildlife. A report on fish and wildlife resources in relation to the proposed Palisades Reservoir project, Snake River, Idaho and Wyo., by the Fish and Wildlife Service, January 2, 1948 — 32

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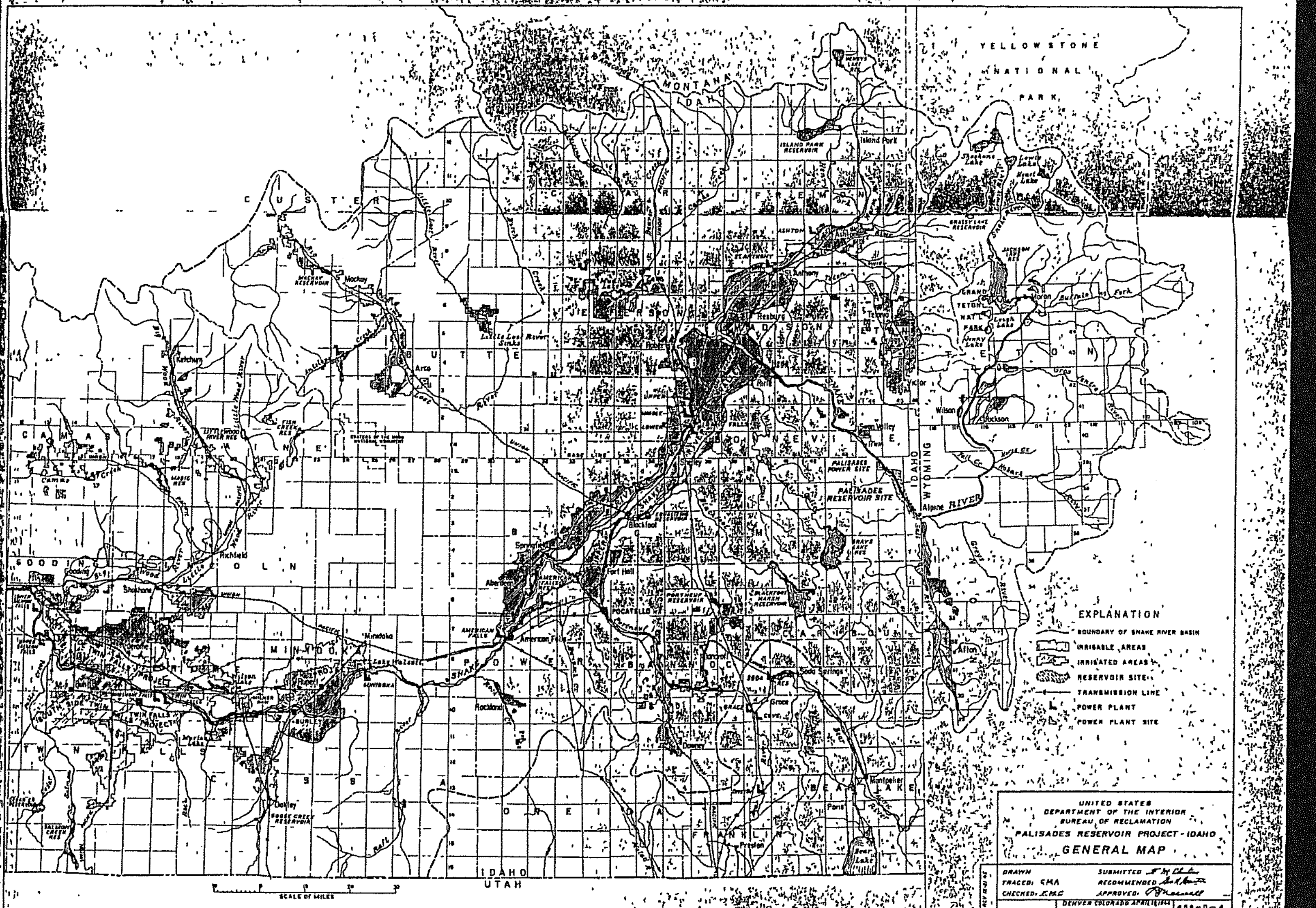

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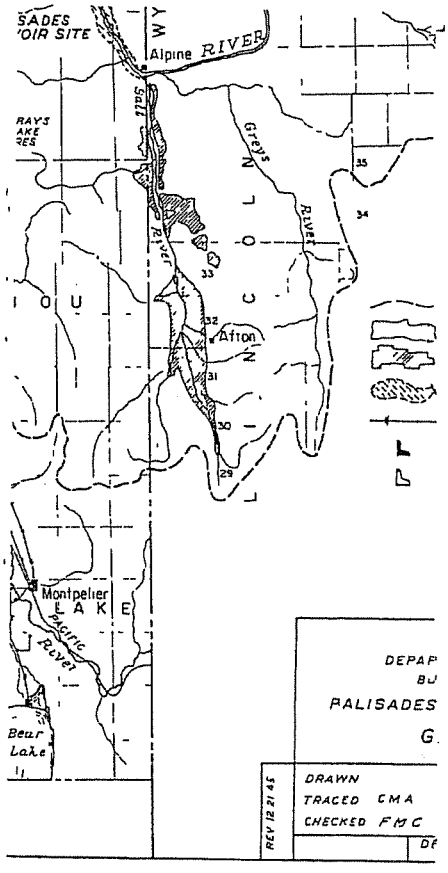
Recreation
Palisades Reservoir project, Snake River Valley, Idaho, preliminary report on recreational potentialities, prepared by the National Park Service, April 1947 — Page
Introduction
Summary
Palisades Reservoir
General description
Climate
Geology
Historical and archeological aspects
Present recreational development and use
Estimate of recreational use
Recreational development
Land-acquisition
Further study and planning
Jackson Lake Reservoir
General description
Present use and development
Estimate of recreational benefit
Palisades Reservoir project, Snake River Valley, Idaho, supplement to preliminary report on recreational potentialities, prepared byt he National Park Service, October 1947



PALISADES DAM AND RESERVOIR PROJECTS, IDAHO

I Description

The Palisades Dam and Reservoir project is a multiple-purpose development, involving irrigation, power, flood control, recreation, and fish and wildlife. Palisades Dam will be located on the main stem of the Snake River at Calamity Point in eastern Idaho, about 8 miles west of the Idaho-Wyoming boundary, and about 50 miles east of Idaho Falls, Idaho. The General Map, following this page, shows the location of the Palisades Dam and Reservoir.

The project will provide supplementary irrigation water for about 650,000 acres in the upper Snake River Valley, defined herein as the watershed of the Snake River above Milner Dam, together with the irrigated area served by canals diverting at that dam. Flood protection for several thousand acres of irrigated land on the Snake River Plain above Idaho Falls also will be provided by the project, as will hydroelectric power badly needed in the upper valley to serve irrigation pumping loads, municipalities, rural cooperatives, and others.

Construction and operation of Palisades Reservoir will greatly enhance the recreational value of Jackson Lake Reservoir and surrounding area, in Wyoming, because the proposed operating plan for Palisades Reservoir will greatly decrease the fluctuations now necessary in the level of Jackson Lake.

The Palisades project will also produce fish and wildlife benefits of substantial value. Water from the reservoir can be used on irrigated lands of the Fort Hall Indian Reservation in lieu of water from the Grays Lake area. Retention of water in that area, one of the leading waterfowl refuges of the Nation, will greatly enhance the area's value for that purpose.

The Palisades project will include the dam, reservoir, powerhouse, transmission facilities, improvement of the Grays Lake area for wildlife purposes, and the construction of necessary recreation facilities on the banks of the reservoir. Related to the project is the construction of downstream flood-control facilities which will supplement the primary flood control afforded by storage in the Palisades Reservoir.

The Palisades Reservoir will store only water available for carry-over from years of above-average stream flow to years of below-average stream flow together with whatever water is saved by proposed elimination of present wasteful winter diversions. Existing reservoirs in the upper Snake River Valley have capacity sufficient to hold all of the presently storable water in years of average or less than average stream flow.

LEGISLATIVE HISTORY

The project was initially authorized in 1941 as the Palisades Dam project by the presentation to the President and the Congress of a report and findings by the Secretary of the Interior on December 9, 1941 (H. Doc No. 457, 77th Cong., 1st sess.), under the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187). That finding incorporated the report of the Commissioner of Reclamation to the Secretary of the Interior, dated November 1, 1941. The supporting engineering and economic report of the Bureau of Reclamation was the product of investigations begun by the Bureau in 1932 to study means of providing urgently needed supplemental storage in the upper Snake River Valley.

A system of levees for flood-control purposes, which will serve in conjunction with Palisades Reservoir, was authorized by the act of December 22, 1944 (58 Stat. 902), on the basis of recommendations of the Chief of Engineers set forth in House Document No. 452, Seventy-seventh Congress, first session.

The report of the Commissioner of Reclamation to the Secretary of the Interior, noted above, stated that the success of the Palisades Reservoir would depend on the conservation of 135,000 acre-feet of water annually then and now being wastefully used, and also on the willingness of the water users to pay for stored water that would be available from the project. The Bureau of the Budget, speaking for the President, approved the project with the reservation that submission of estimates of appropriations needed for construction be withheld until—

> local interests have given satisfactory assurance to the Secretary of the Interior that they will eliminate the wasteful use of water in the area to be affected by the project.

Although appropriations for the project were made for the fiscal years 1945 through 1948, and a contracting authority was granted for the fiscal year 1949, no construction contracts were awarded until late in fiscal year 1949 because of the conditions specified in the original authorization.

Final assurances as to adoption of water-saving methods will be covered by contracts yet to be made with the interested organizations of water users. Until this report has been approved and until legislation covering the sale of reserved space in American Falls Reservoir and related matters has been enacted, however, such contracts cannot be prepared. Nevertheless, resolutions giving assurance that the water users will agree to water-saving provisions which will satisfy that condition of the authorizing document have been obtained from the governing bodies of the interested water users groups. On the basis of these resolutions, some preliminary construction contracts were executed late in fiscal year 1949. Continuation of construction activities, however, will depend on the present water-saving assurances given by resolution being implemented within a reasonable time by contracts satisfactory to the Secretary. Such contractual assurances are essential to success of the project, as indicated in the report on the project by the Commissioner of Reclamation, noted earlier.

ORIGINAL PLAN

At the time of the origi
1941, the report recogniz
and power. The plan in
dam 260 feet high and 2,2
with a capacity of 51,00
estimated total storage c
installation of 30,000 kil
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Powerhouse and machinery	
Transmission lines, etc	
Water-conservation program	
Channel improvements	
Total	

[1] While the cost of this program was
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saving program.
[2] The Corps of Engineers has under

It was proposed tha
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Flood control	
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ORIGINAL PLAN OF PROJECT AND ESTIMATED COST

At the time of the original authorization of the project in December 1941, the report recognized benefits only to irrigation, flood control, and power The plan included as its principal features an earth-fill dam 260 feet high and 2,200 feet long at the crest, a concrete spillway with a capacity of 51,000 cubic feet per second, a reservoir with an estimated total storage capacity of 1,420,000 acre-feet, and a power installation of 30,000 kilowatts with a minimum power head of 104 feet Of the active storage space (1,300,000 acre-feet), 500,000 acre-feet were to have been used primarily for flood control, and 800,000 acre-feet for irrigation When needed, a total of 900,000 acre-feet of space, however, would have been available, through joint operation, for flood control

The estimated cost of construction at the time of authorization (1941) was $24,092,000 This cost included the following items

Palisades Dam and Reservoir	$18,125,000
Powerhouse and machinery	2,200,000
Transmission lines, etc	611,000
Water-conservation program	[1] 2,422,000
Channel improvements	[2] 734,000
Total	24,092,000

[1] While the cost of this program was included in the estimate of the cost of the project, the plan was that the individual water users were to finance their own wells necessary to the accomplishment of the water-saving program

[2] The Corps of Engineers has undertaken this work.

It was proposed that these costs be allocated in the following manner

Irrigation	$10,216,000
Flood control	8,165,000
Power	5,711,000

The total annual benefits were estimated at $1,327,000 They included $510,000 for irrigation, $410,000 for power, and $407,000 for flood control

The total annual costs were estimated at $969,000 They included the annual component of the construction costs ($850,000) and operation, maintenance, and replacement costs of $119,000 annually

The ratio of benefits ($1,327,000) to costs ($969,000) was given as 1 37 to 1 00

PRESENT PLAN AND ESTIMATED COST

During the 7 years since the project was authorized, intensive investigations and studies conducted by the Bureau of Reclamation and several other Federal agencies have resulted in enlarging and adding to the purposes which the project will serve

Recent estimates of present and prospective power requirements in eastern Idaho show that there will be an increasingly critical shortage of commercial and irrigation pumping power in that area Operation studies of Palisades Reservoir and design studies of the power plant show that the efficiency of the power plant can be increased appreciably by raising the dead storage pool and that the originally planned capacity of the power plant (30,000 kilowatts) should be increased to avoid waste of potential energy in irrigation-

season water releases Such increased capacity is needed for generation of irrigation pumping power and for other purposes Provisions for this expanded capacity involve (1) increase of the dead storage pool from 120,000 to 200,000 acre-feet (providing a minimum power head of 122 feet), and (2) enlargement of the power installation from 30,000 to approximately 112,500 kilowatts In order to deliver the power to load centers, it is planned to construct initially two transmission lines from the Palisades Dam to substations near the cities of Idaho Falls and Pocatello and a single line from Pocatello to terminal facilities in the vicinity of the proposed power plant at the American Falls Dam These transmission facilities, planned tentatively to be of 115-kilovolt capacity, together with transmission facilities associated with that plant and the proposed north side pumping division of the Minidoka project, would complete the high-voltage facilities necessary for service to the irrigation pumps on that division and other irrigation pumping loads

Studies by the Fish and Wildlife Service and by the National Park Service have shown that substantial fish and wildlife and recreational benefits will result from the project when operated under an integrated plan with existing reservoirs In order to realize the maximum wildlife and recreational benefits from the reservoir, it will be necessary to construct certain facilities for those purposes in connection with the project The justification for such facilities is explained in the appended reports by those agencies

The basic plan for Palisades Dam has not been changed, except that the outlet capacity would be increased from 20,000 to about 30,000 cubic feet per second in order to provide more flexibility in the operation of the reservoir for flood control A more detailed topographic survey of the reservoir area in 1942 showed that the total storage capacity below the originally fixed flow-line elevation of 5,620 feet above sea level is 1,400,000 acre-feet instead of 1,420,000 acre-feet as computed from the earlier survey With 200,000 acre-feet of the capacity reserved in a dead-storage pool to maintain a minimum powerhead, there would remain 1,200,000 acre-feet of active storage space in the reservoir

The current estimated cost based on January 1, 1949, price levels is $76,601,000 The increase over the estimated cost of the project initially proposed is attributable to increases in the costs of construction, which have more than doubled, the expansion of the power facilities, the increase in outlet capacity, and the addition of fish and wildlife and recreational facilities

Detailed cost estimates for the Palisades Dam and Reservoir project are presented in table 1 on the following page.

OIR PROJECT

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expansion of the power
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Dam and Reservoir project
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TABLE 1.—*Construction cost estimate, Palisades Dam and Reservoir project, Idaho*

Joint facilities		
Storage system		
Rights-of-way	$1, 108, 000	
Clearing reservoir	1, 502, 000	
Dam, spillway, and outlet works	43, 945, 000	
Relocated highways and utilities	5, 783, 000	
Permanent improvements	1, 310, 000	
Examinations and surveys	111, 900	
Temporary construction property	767, 000	
Operation and maintenance during construction	10, 500	
Subtotal		$54, 537, 400
Power facilities		
Hydraulic production plant	$14, 382, 000	
Communications	143, 000	
Examinations and surveys	40, 600	
	14, 565, 600	
Transmission facilities		
Power plant switchyard	1, 078, 000	
Lines and substations	5, 922, 000	
	7, 000, 000	
Subtotal		21, 565, 600
Fish and wildlife facilities		
Rights-of-way	$300, 000	
Improvements	50, 000	
Subtotal		350, 000
Recreation facilities Buildings, roads, and sanitation		148, 000
Grand total		[1] 76, 601, 000

[1] Flood control measures, downstream from Palisades Dam under construction as supplemental facilities of the project will have a cost estimated at $1,300,000, in addition to the total shown above

LAND AREAS REQUIRED FOR VARIOUS PROJECT FEATURES

On the two maps following are shown the locations and extent of areas which, under present plans, are expected to be acquired for the principal project features, excluding the transmission lines

The first map, entitled "Area Required for Construction and Administration of Dam and Reservoir and Related Features," shows the dam site (Palisades Dam), the area intended to be acquired for use in construction and the administration of the dam and power plant (shown on the map as enclosed by the hatched "acquisition line" and the flow line in the vicinity of the dam), the reservoir area, and, in part, the tentative locations of the relocated State Highway No 29 and the Forest Service road.

The reservoir area is that considered to be needed for reservoir construction and operation and maintenance, according to good engineering, administration, and management practices, including the incidental use for public recreational purposes. The intended land acquisitions for the reservoir area are as follows

1 In Idaho, to acquire all north of the center line of the river and east of the "acquisition line" to the southerly line of the relocated highway, excepting areas where the reservoir flow line extends north of the relocated highway

AM AND RESERVOIR PROJECT

n the "acquisition line" near the dam and relocated Forest Service road will cross n the State line and the point at which h Coy Creek, to acquire all south of the n the northerly line of the relocated Forest

ons, including that covered by the excep- in the center of the river to a line not less l horizontally, above the flow line scribed above, if the area to be acquired ng standards would result in the taking of one common ownership and it would be to take the whole tract to avoid excessive ents, the whole tract will be acquired the reservoir is predicated on the build- n spillway elevation of 5,620 feet above ld need to be revised if that elevation is

ite highway and Forest Service road to h the areas and rights required for con- tenance of these roads, the location in- tative only

ission lines and appurtenant facilities ns and rights required for the construc- nce of these facilities

rays Lake Wildlife Management Area" acquired for the establishment and ad- wildlife management area, the estab- de possible through the providing of Palisades Reservoir

PLAN AND BENEFITS

the maximum multipurpose use of and n and Reservoir project has been para- of the project by all agencies concerned is considered for the operation of the carefully to see if each purpose might to the others The operating plans l in this section of the report, are, on timum that can be obtained from the

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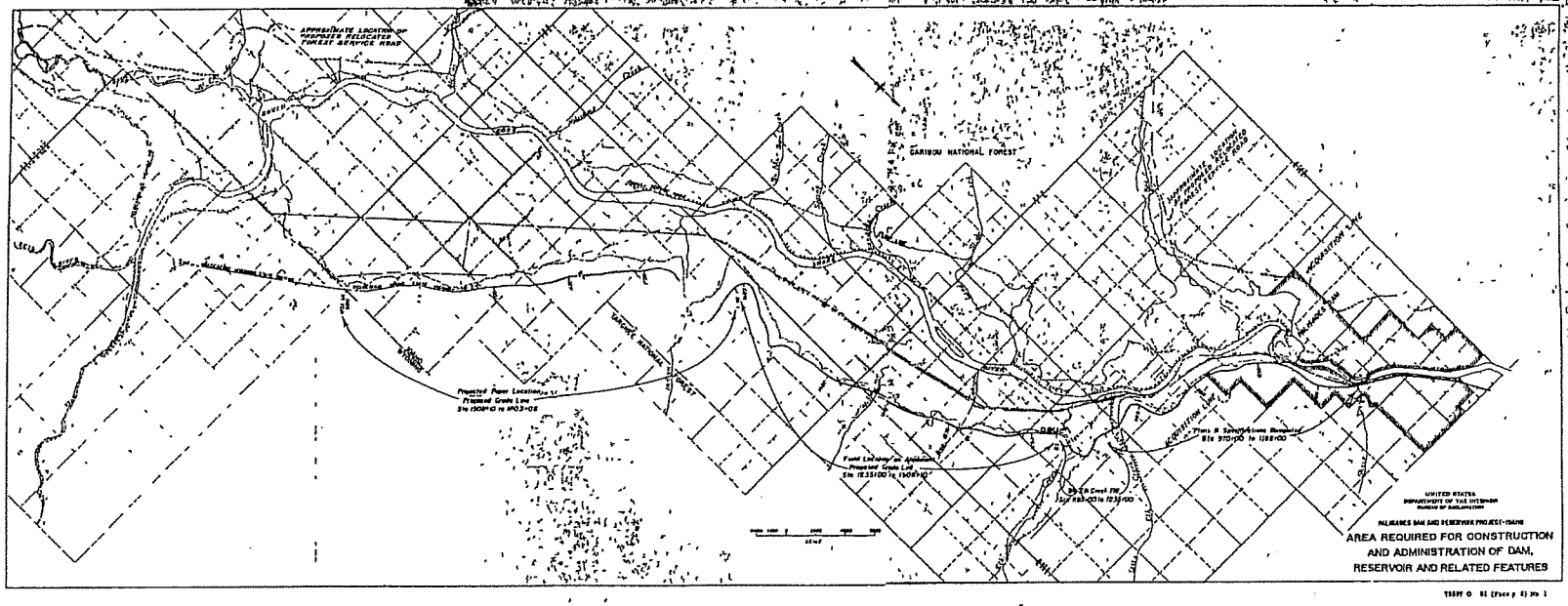
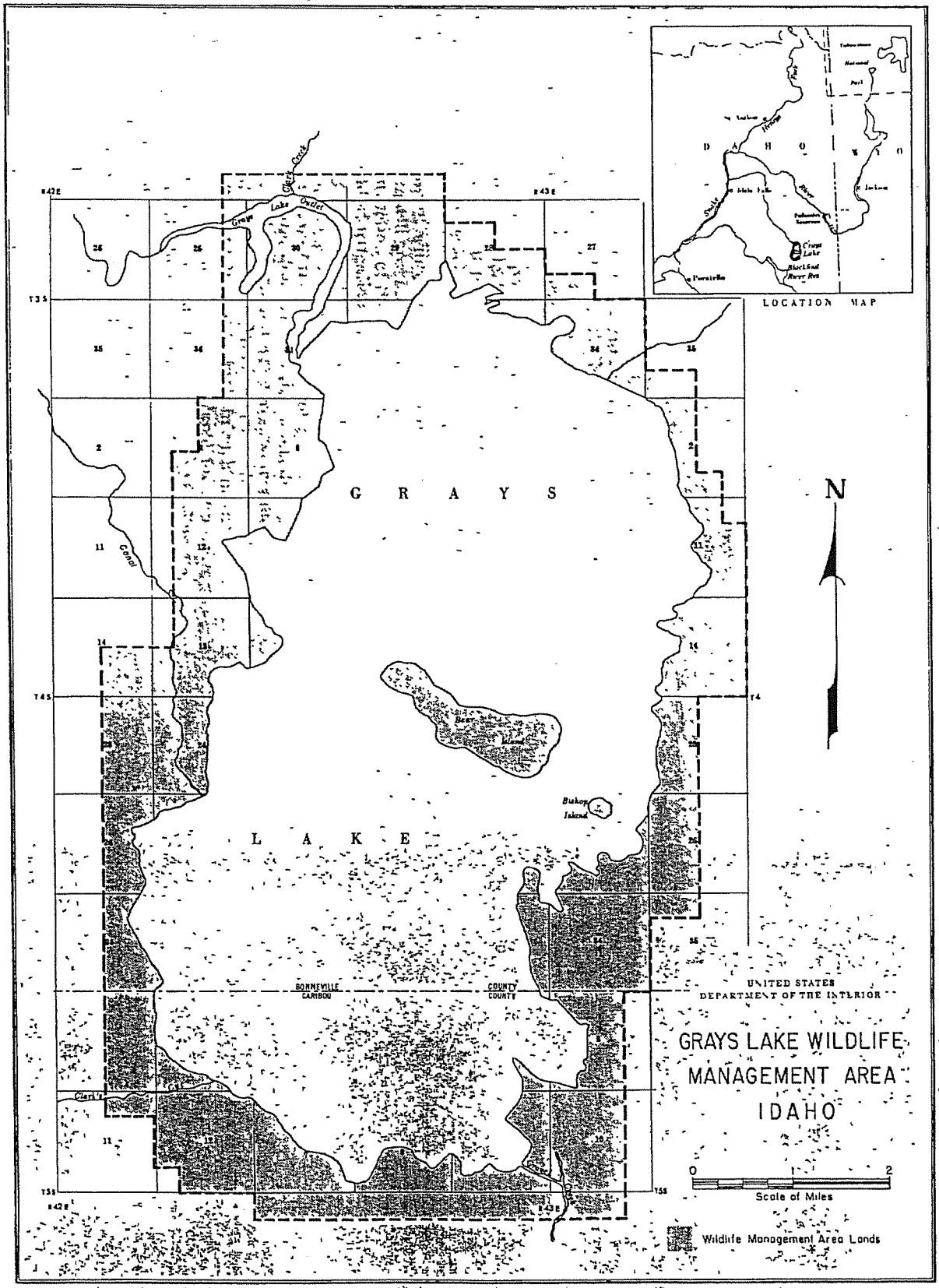
resent water uses and requirements in s been made by the Bureau of Recla- e authorized The primary purpose provide factual information to serve agreements with water users of the l water wastage caused principally by associated objective was to gather determine a proper disposition of the in American Falls Reservoir When





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2 In Idaho, between the "acquisition line" near the dam and the point at which the relocated Forest Service road will cross Bear Creek and between the State line and the point at which that road will cross McCoy Creek, to acquire all south of the center line of the river to the northerly line of the relocated Forest Service road

3 In all other situations, including that covered by the exception in 1, to acquire from the center of the river to a line not less than 300 feet, measured horizontally, above the flow line

4 In all situations described above, if the area to be acquired according to the foregoing standards would result in the taking of but part of a tract in one common ownership and it would be financially advantageous to take the whole tract to avoid excessive severance damage payments, the whole tract will be acquired

The area to be acquired for the reservoir is predicated on the building of a dam with a maximum spillway elevation of 5,620 feet above sea level, and, of course, would need to be revised if that elevation is changed

The acquisitions for the State highway and Forest Service road to be relocated will be governed by the areas and rights required for construction, operation, and maintenance of these roads, the location indicated on the map being tentative only.

The acquisitions for transmission lines and appurtenant facilities will also be governed by the areas and rights required for the construction, operation, and maintenance of these facilities

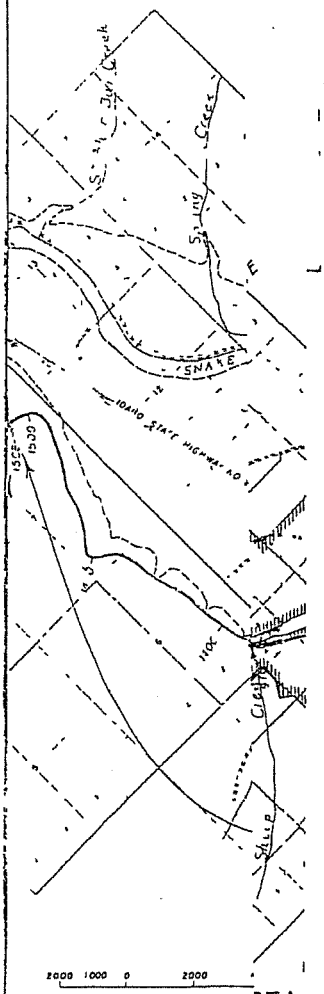
The second map entitled "Grays Lake Wildlife Management Area" shows the lands expected to be acquired for the establishment and administration of the Grays Lake wildlife management area, the establishment of which will be made possible through the providing of substitute irrigation storage in Palisades Reservoir

II Operation Plan and Benefits

The objective of obtaining the maximum multipurpose use of and benefits from the Palisades Dam and Reservoir project has been paramount throughout the restudy of the project by all agencies concerned with its development All plans considered for the operation of the reservoir have been scrutinized carefully to see if each purpose might be increased without detriment to the others The operating plans and resulting benefits, presented in this section of the report, are, on the basis of the restudies, the optimum that can be obtained from the project in the foreseeable future.

IRRIGATION

A thorough investigation of present water uses and requirements in the upper Snake River Valley has been made by the Bureau of Reclamation since the project was first authorized The primary purpose of that investigation has been to provide factual information to serve as a basis for the negotiation of agreements with water users of the valley covering the elimination of water wastage caused principally by winter operation of canals An associated objective was to gather factual material from which to determine a proper disposition of the 433,593 acre-feet of reserved space in American Falls Reservoir When



the American Falls Reservoir, 120 miles downstream from Palisades, on the main stem of the Snake, was completed in 1927, the use of that space then in contemplation was for new land developments For a number of years shortly following completion of American Falls Dam, that reservoir failed to fill because of an unprecedented drought The reserved space was, therefore, leased to present water users, an arrangement which in various forms has been in effect ever since

A report covering the results of that investigation, entitled "Water Supply for Palisades Reservoir Project, Idaho" (project planning report No 1-5 17-1), was issued by the Bureau of Reclamation in October 1946 The report presented the results of extensive water supply studies of the upper Snake River Valley together with a proposed winter water-saving program and a plan for development of new land Since the issuance of the report, the Bureau of Reclamation has carried on lengthy negotiations with the water users in an effort to obtain the maximum possible saving of water during the winter from a conservation program and also to obtain agreement as to an equitable disposition of the reserved space in American Falls Reservoir Various proposals were made by the United States, out of which a compromise evolved The compromise, to which there has been tentative, general agreement, involves these principal points (1) the elimination by the water users in the upper half of the valley, at their own expense, of the present winter diversions in order to conserve water for storage in Palisades Reservoir; and (2) the disposition of American Falls Reservoir space as follows 315,000 acre-feet to present lessees, 47,593 acre-feet to be set aside for the North Side pumping division of the Minidoka project, and 71,000 acre-feet to be set aside for the Michaud area It is estimated that an average of 135,000 acre-feet annually will be saved by the proposed elimination of winter diversions in that area This winter water-saving program will provide sufficient water for storage in dry years to make the construction of the Palisades Reservoir feasible from the standpoint of yield of irrigation water

The winter water-saving program involves the elimination of the long-standing practice of supplying domestic and stock water to farmsteads by operating the irrigation canal system throughout the year A substantial portion of the water diverted into the canals during the winter percolates to the underlying ground-water reservoir which is not tributary to the Snake River above Milner Dam Hence, the elimination of winter seepage losses from the canals in such nontributary areas will increase the amount of water available for storage Reliance on the canals for domestic and stock water has continued through the years because of the high cost of drilling deep wells and pumping water from them and because it is more convenient to water livestock from canals than from wells Furthermore, there has been no real incentive to save water until another reservoir is constructed on the Snake River. Since the water users involved in the winter water-saving program will incur considerable expense in equipping their farmsteads with wells and will have to forego the convenience of watering livestock from canals, it has been understood among all prospective participants in Palisades Reservoir that those water users who make possible the saving of 135,000 acre-feet of water annually would be given a special right to store that amount of water annually in Palisades Reservoir This is in effect a bottom storage right in

the reservoir which would be filled every year regardless of stream flow conditions

By coordinating the operation of Palisades Reservoir with the existing American Falls and Jackson Lake Reservoirs, the maximum volume of storage water can be carried over in all three reservoirs from wet cycles to dry cycles The amount of that carry-over would be substantially greater than would be the case if Palisades were operated independently from the existing system Through this coordination, Jackson Lake could be operated primarily as a hold-over reservoir, and no irrigation water would be drawn from it until Palisades Reservoir had been emptied The additional, usable return flow made available from application of this hold-over storage will augment further the supply of irrigation water during drought periods An operation study of the three-reservoir system, taking account of these factors, shows that storage in Palisades Reservoir and the elimination of winter diversions in the upper half of the valley would have made enough additional water available to eliminate all shortages on existing projects during the past 60 years, except those in the extremely dry years of 1934 and 1935 Even in those years, however, an appreciable reduction would have been made in the shortages Table 2 shows a summary of the shortages with and without Palisades Reservoir during the 24-year period from 1919 to 1942, this taking into account the disposition of the reserved space in American Falls Reservoir on the basis indicated in the preceding paragraph. Of the average of 216,000 acre-feet of additional water made available annually by the project, 147,000 acre-feet would be delivered directly from Palisades Reservoir It should be recognized, however, that the average delivery of 147,000 acre-feet annually is fixed by the demand for supplemental water and is not a measure of the full capability of the reservoir If there were a demand for 1,200,000 acre-feet of supplemental water every year instead of only in extremely dry years, the reservoir storage right would yield an average of approximately one-half million acre-feet annually Such a demand does not exist, however, because the existing reservoirs meet all storage water needs in years of above-average stream flow

The near elimination of shortages by the Palisades Reservoir will result in substantial irrigation benefits in the upper Snake River Valley Such irrigation benefits, however, are difficult to evaluate in monetary terms because the additional water made available by the project will fulfill widely varying irrigation needs in the large area served Although most of the water will be used to supplement supplies presently available for irrigated lands, the degree of supplementation will vary widely Lands served by some canals will need the additional water only in extremely dry years such as 1931 and 1934, while others will need it every year the run-off drops below average Also, the value of the return from application of a given amount of supplemental water will vary from one area to another because of differing diversion requirements and quality of land Some of the additional water, moreover, will be used to supplement the yield of the reserved American Falls space in the development of new land in the valley

To determine the benefits of increased water supplies under varying conditions and repayment ability subsequently discussed, farm budgets showing costs and returns for typical farms under present and

prospective water supply condi
the upper Snake River Valley
and cropping systems prevailin
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part of the adjustments made
could properly be ascribed to
largely a matter of judgment
conditions, adjustments made in
of the depression of the 1930's,
the long-run adjustments to ch
ditions in the area

TABLE 2.—*Irrigation shortages in the Palisades Dam and*

Water year	
1919	
1920	
1921	
1922	
1923	
1924	
1925	
1926	
1927	
1928	
1929	
1930	
1931	
1932	
1933	
1934	
1935	
1936	
1937	
1938	
1939	
1940	
1941	
1942	
24-year average	

[1] Includes additional water accumulated in and
[2] Based on requirement of 7,000,000 acre-feet

Under current Bureau procedu
to be synonymous with increase
or dependent upon the project
fits are divided into direct and in
are the potential increases in n
directly associated with farms in
(1) increases in net farm income
labor, and (3) increases in interes
benefits are the appropriate sha
resulting from the production
project Indirect benefits arise f
handling of farm products and n
uals directly or indirectly depend

prospective water supply conditions were prepared for five areas in the upper Snake River Valley Inasmuch as information on yields and cropping systems prevailing during years of water shortage is extremely scarce, the availability of such data became the major criterion in the selection of five sample areas After finding areas where the required basic data were available, determination of that part of the adjustments made in farm organization and yields that could properly be ascribed to insufficient water supplies remained largely a matter of judgment Besides showing the effect of water conditions, adjustments made in those years also reflected the effect of the depression of the 1930's, generally unseasonal weather, and the long-run adjustments to changing physical and economic conditions in the area

TABLE 2.—*Irrigation shortages in the Snake River Valley, with and without Palisades Dam and Reservoir project, 1919–42*

Water year	Shortages in Snake River Valley with existing storage facilities	Additional water made available by Palisades Reservoir	Remaining shortage	
			Amount	Percent
	1,000 acre-feet	*1,000 acre-feet*	*1,000 acre-feet*	
1919	595	595	0	0
1920	0	0	0	0
1921	0	0	0	0
1922	0	0	0	0
1923	0	0	0	0
1924	297	297	0	0
1925	0	0	0	0
1926	234	234	0	0
1927	0	0	0	0
1928	0	0	0	0
1929	0	0	0	0
1930	51	51	0	0
1931	1,503	[1] 1,503	0	0
1932	82	82	0	0
1933	400	400	0	0
1934	[2] 3,215	629	2,586	37
1935	981	171	810	12
1936	28	28	0	0
1937	471	471	0	0
1938	0	0	0	0
1939	128	128	0	0
1940	487	487	0	0
1941	216	216	0	0
1942	0	0	0	0
24-year average	358	216	142	

[1] Includes additional water accumulated in and delivered from Jackson Lake Reservoir
[2] Based on requirement of 7,000,000 acre-feet

Under current Bureau procedure, irrigation benefits are considered to be synonymous with increases in national income associated with or dependent upon the project For purpose of derivation such benefits are divided into direct and indirect The direct irrigation benefits are the potential increases in national income accruing to persons directly associated with farms in the area Direct benefits consist of (1) increases in net farm income, (2) increases in wages paid to farm labor, and (3) increases in interest paid for farm capital The indirect benefits are the appropriate share of the increased national income resulting from the production of additional farm products on the project Indirect benefits arise from the processing, distribution, and handling of farm products and increased purchases made by individuals directly or indirectly dependent upon the project for their income.

After determining the average benefits per acre-foot of additional water for the five sample areas, similar values were assigned to all other areas in the Upper Snake River Valley for which requests for storage space in Palisades Reservoir have been made These benefits were weighted by the acre-feet of space applied for by the various areas in order to secure a weighted average benefit per acre-foot of water; the weighted average benefit amounted to $9 17 based on farm prices of the period 1939–44 The average benefit per acre-foot multiplied by the average annual additional supply from the project (216,000 acre-feet) results in total average annual irrigation benefit of $1,981,000 This is the monetary evaluation of the total annual irrigation benefit from the project It includes the benefit from the yield of Palisades Reservoir as well as that from the additional water made available through the integrated operation of existing reservoirs in the valley, winter water-saving measures, and increased return flows

The studies relating to irrigation benefits presented above and repayment ability presented in part IV were directed toward the determination of benefits and repayment ability associated with storage space All related expenses, including estimated reservoir operation, maintenance, and costs associated with the delivery of water to the farms, were considered as costs in the farm budget analysis Therefore, further account need not be taken of such costs in the present allocation report, except to show that such costs will exist.

POWER

The production of power at Palisades Dam will be entirely incidental to the operation of the reservoir for irrigation and flood control The production of firm power is possible only because a certain amount of water must be passed through the reservoir during the winter to fill the prior storage right of American Falls Reservoir During the spring and summer months, the releases for flood control and for irrigation will be utilized for production of secondary commercial power and irrigation pumping power to the extent of the turbine capacities Operation studies of the reservoir show that a continuous firm output of 15,300 kilowatts could have been maintained through the most critical drought in the 60-year period of stream-flow records, except for a 4-month period in 1935 when firm output would have averaged 8 percent less than the above figure During the peak of the irrigation season and at times when storage is being evacuated for flood control, the plant normally could be operated at its full capacity (112,500 kilowatts)

The average annual production of power during a representative 20-year period (1928–47) would amount to 521,395,000 kilowatt-hours The distribution in terms of average kilowatts is shown in table 3

TABLE 3.—*Palisades power plant*

Month	Critical stream flow (average of 3 lowest years)	20 a
	Thousands of kilowatts	*Tho of k*
October	17 05	
November	16 33	
December	15 69	
January	15 69	
February	15 33	
March	15 65	

Power demands in easter
particularly during the post
point where Diesel-driven
distributors to relieve powe
municipal system) has indic
power available from Palisa
have also requested powe
of prospective power doman
the Atomic Energy Commi
west of Idaho Falls still furth
not only for the reactor plan
where population and busine
that plant Thus, it is evide
firm power exceeds the firm

In addition to the above
will require a large amount
North Side pumping divisi
approximately 34,000 kilowa
and the contemplated Mic
about 7,000 additional kilow
the area may require an addi
This large pumping load exc
from Palisades alone How
tion indicate that the comb
American Falls power plant
furnish a reliable power su
irrigation pumping loads

As is characteristic of hyd
of firm power production ca
periods of high runoff B
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replace energy generated at
in hydroelectric power rese
the high energy-consuming
creates an ideal opportunit
the above manner The rep
losses.

:SERVOIR PROJECT

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ılar values were assigned to all
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mounted to $9 17 based on farm
·erage benefit per acre-foot mul-
›ional supply from the project
verage annual irrigation benefit
evaluation of the total annual
It includes the benefit from the
that from the additional water
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measures, and increased return

enefits presented above and re-
were directed toward the deter-
ability associated with storage
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farm budget analysis There-
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such costs will exist

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cases for flood control and for
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power during a representative
ount to 521,395,000 kilowatt-
average kilowatts is shown in

TABLE 3.—*Palisades power plant production, Palisades Dam and Reservoir project*

Month	Critical stream flow (average of 3 lowest years)	20-year average	Month	Critical stream flow (average of 3 lowest years)	20-year average
	Thousands of kilowatts	*Thousands of kilowatts*		*Thousands of kilowatts*	*Thousands of kilowatts*
October	17 05	23 08	April	24 10	35 37
November	16 33	33 96	May	45 09	82 07
December	15 69	28 01	June	79 24	105 16
January	15 69	27 93	July	66 25	105 56
February	15 33	55 83	August	40 64	95 71
March	15 65	47 40	September	38 00	74 15

Power demands in eastern Idaho have shown a steady increase, particularly during the postwar period, and have now reached the point where Diesel-driven generators are being installed by some distributors to relieve power shortages The city of Idaho Falls (a municipal system) has indicated its desire to purchase all the firm power available from Palisades, and REA cooperatives in this area have also requested power from this project As further indication of prospective power demands, the recently announced proposal of the Atomic Energy Commission to build an atomic reactor plant west of Idaho Falls still further adds to the general demand for power, not only for the reactor plant, but also for neighboring communities where population and business will be increased by establishment of that plant Thus, it is evident that the present demand for Palisades firm power exceeds the firm capability of the plant

In addition to the above demands, prospective irrigation pumping will require a large amount of seasonal energy. The recommended North Side pumping division of the Minidoka project will require approximately 34,000 kilowatts of reliable seasonal pumping power, and the contemplated Michaud Flats development would require about 7,000 additional kilowatts. Other potential pumping loads in the area may require an additional 15,000 kilowatts of summer power. This large pumping load exceeds the supply that would be available from Palisades alone However, studies of potential power production indicate that the combination of the proposed 30,000-kilowatt American Falls power plant and the Palisades power plant would furnish a reliable power supply well suited in seasonal pattern for irrigation pumping loads

As is characteristic of hydroelectric power plants, energy in excess of firm power production can be generated in off-peak periods and in periods of high runoff By appropriate transmission interconnections and interchange agreements, this energy can be utilized to replace energy generated at fuel plants and to reduce storage drafts in hydroelectric power reservoirs The proximity of Palisades to the high energy-consuming phosphate developments near Pocatello creates an ideal opportunity to utilize Palisades surplus energy in the above manner The replacement would also reduce transmission losses.

Summarizing the above, it is estimated that Palisades energy will fall into the following classes after full development of the project

Class of energy	Million kilo watt-hours per year	Annual revenue
Firm	164 4	$657, 600
Pumping	23 0	69 000
Nonfirm	221 4	448, 800
Losses and unaccounted	109 8	0
Total	521 4	1, 175, 400

The above $1,175,400 is taken as a measure of the direct power benefits to be derived from the Palisades project

The total power benefits attributable to Palisades include, in addition to the above direct benefit, those indirect benefits that would result from the portion of Palisades energy sold to municipalities, cooperatives, and others for resale to ultimate consumers These indirect benefits (totaling $445,600) would result from three sources. First, through savings made in the purchase of Palisades power, public, municipal, and other utilities, in reselling power, would be able to pass on to the ultimate consumers savings estimated at $182,000 annually Second, indirect benefits represented by income derived by distribution agencies from the retail distribution of Palisades power purchased at wholesale amount to $251,600 annually Third, the estimated indirect benefits arising from the use of Palisades power resold by retailing agencies for the production of goods and services would amount to $12,000 Total annual power benefits thus equal $1,621,000

FLOOD CONTROL

The additional detailed studies made by the Bureau of Reclamation and the Corps of Engineers since the project was authorized show that Palisades Reservoir can provide fuller control of major floods than was originally contemplated without adversely affecting the value of the reservoir for irrigation purposes These studies have resulted in agreement by both agencies on an operating plan whereby the entire active space in the reservoir (1,200,000 acre-feet) will be used jointly for flood control and irrigation purposes This operating plan, which, with the confirming correspondence, is appended hereto, will provide a basis for regulations to be prescribed by the Secretary of the Army for the use of storage space allocated to flood control, in accordance with section 7 of the Flood Control Act of 1944 (58 Stat 887)

Studies by the Corps of Engineers have shown that the damages caused by flows up to 20,000 cubic feet per second can be eliminated more economically by levees, revetments, and other channel improvements than by storage in Palisades Reservoir This fact was recognized in the original project plan, and construction of the works necessary to provide a permanent safe channel with a capacity of 20,000 cubic feet per second through the Heise-Roberts area was authorized in conjunction with the Palisades Dam project The Corps of Engineers has proceeded with the construction of those

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- -	23 0	69, 000
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The operating plan adopted is predicated on periodic forecasts, during the period from February 1 to July 31 of each year, of the volume of run-off expected from the drainage basin of the Snake River above Heise, Idaho Experience in this and other watersheds where floods result from melting snow shows that the volume of such flood run-off can be forecast with an average error of less than 10 percent by correlating data on precipitation, temperatures, and snow surveys with run-off data All of such hydrologic data have been obtained in the Snake River watershed during the past 20 years, and steps are now being taken to expand the coverage of the watershed with snow survey courses and precipitation gages

The storage space in Palisades Reservoir to be allocated to flood control each year, under the plan, is defined as that space required to control the forecasted flood volume with releases not exceeding 20,000 cubic feet per second from the time that the reservoir inflow first exceeds 20,000 cubic feet per second until July 31, insofar as that control can be effected by a reservoir capacity not exceeding 1,200,000 acre-feet Releases between 20,000 and 30,000 cubic feet per second would be permitted when the storage capacity required to limit the flow to 20,000 cubic feet per second exceeds the active capacity of the reservoir. Seasonal evacuation and filling of the required flood-control space will be controlled by a parametric chart which has been prepared empirically from hydrographs of recorded floods Provision is made in the plan for adjusting the position of the parameters on this chart whenever further study or operating experience shows the need for such adjustment

Studies by the Bureau of Reclamation and by the Corps of Engineers indicate that Palisades Reservoir, operated on a forecast basis, as described in the appended plan, could have limited all of the known floods in the Snake River to flows of 30,000 cubic feet per second or less at Heise, Idaho Assuming that the floods which occurred prior to the establishment of snow surveys could have been forecast as accurately as were the floods which have occurred since such surveys were established, all except two or three of the floods occurring since 1890 could have been reduced to 20,000 cubic feet per second at Heise

The Corps of Engineers, in a reevaluation of flood damages on the flood plain of the Snake River below Heise, Idaho, under conditions of development in 1946, found that, on the basis of 1943 price levels, the flood-control benefits creditable to Palisades Reservoir for the reductions in flood flows indicated in the preceding paragraphs would average $899,330 annually The 1943 price levels were used because they correspond closely with the price levels for the period 1939–44 which, as noted, were used in determining irrigation benefits Either is considered indicative of long-range, future price levels Because the channel improvement works in the Heise-Roberts area are now being constructed by the Corps of Engineers as a separate project, data concerning those features are not presented in this report

FISH AND WILDLIFE

The benefits of Palisades Reservoir to fish and wildlife in the Upper Snake River Valley will depend largely upon how the Reservoir is operated and also upon how its operation affects the operation of other storage reservoirs in the area The Fish and Wildlife Service of the United States Department of the Interior has conducted a field investigation to determine, first, the net effect of the impoundment upon fish and wildlife values, and, second, whether or not the Reservoir could be used to improve fish and wildlife environments in the surrounding area The findings of that investigation, covered in the appended report on the project by the Fish and Wildlife Service, are outlined briefly in the following paragraphs

Flooding of 20 miles of the main stream and 18 4 miles of tributaries, which will occur with construction of Palisades Reservoir, will eliminate stream fishing now practiced in those reaches There will be substituted, however, the fishing opportunities in the reservoir Moreover, there will be an increase in the fishery value of the river below the dam brought about through reduction of flood flows It is estimated that the net effect of these changed conditions on the fishery resource will be a gain of $11,200 annually

The wildlife resource in the reservoir basin will be adversely affected to some extent by construction of the reservoir Some habitat for big game, upland game, and fur animals would be eliminated Waterfowl would lose good nesting areas, but the value of the reservoir pool for resting purposes would more than compensate for this nesting loss The net effect of reservoir construction on wildlife would be an estimated loss of $3,260 annually

There is, however, an opportunity to increase substantially the wildlife values in the surrounding areas through operation of Palisades Reservoir This opportunity involves the use of irrigation storage water developed in Palisades Reservoir to replace the water now drawn for irrigation from Grays Lake, and so to permit the exclusive use of that lake as a wildlife refuge Grays Lake, 25 miles southwest of Palisades Reservoir, in the headwaters of Willow Creek is an area of excellent wildlife potentialities In its natural state, the lake was one of the best marsh habitats in the western United States for waterfowl and muskrat The wildlife value of the lake has been drastically reduced, however, since 1924, when the Indian Service, United States Department of the Interior, constructed control works at the outlet of the lake so that it could be utilized as a reservoir to supply water for irrigation of land in the Fort Hall Indian Reservation

In order to restore Grays Lake to its natural state and to control its level to create optimum wildlife environment, it is proposed that water from Palisades Reservoir be substituted for that now supplied to the Fort Hall Indian Reservation from Grays Lake The Bureau of Reclamation and the Bureau of Indian Affairs have agreed that the yield of irrigation water from 55,000 acre-feet of space in Palisades Reservoir would replace adequately the irrigation water supply now drawn from Grays Lake Realization of the benefit by reason of the Grays Lake restoration is dependent on providing such replacement storage, and therefore, to assure the benefit and justify the nonreimbursable allocation based on that benefit, the indicated amount of space will be allotted to the Fort Hall Indian Reservation, and the

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The Fish and Wildlife Service
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water will be delivered to the reservation lands through existing canals The Fish and Wildlife Service estimates that the habitat improvement made possible by this exchange of water would increase the annual wildlife value of Grays Lake from a present appraisal of $35,600 to $152,400 This represents a gross annual gain of $116,800 In order to develop a wildlife management area on Grays Lake, required in order to realize benefits of this magnitude, however, it would be necessary for the United States to acquire approximately 9,300 acres of private land and to set aside 3,500 acres of public land, and to construct buildings, outlet structures, fencing, and roads at a total estimated cost of $350,000 The annual cost of operation and maintenance of these and other necessary facilities is estimated to be $15,000.

In recapitulation, estimated annual fish and wildlife benefits of Palisades Reservoir derive from the increased value of the fishing resource ($11,200) and the increased wildlife value of Grays Lake ($116,800), minus the decreased wildlife value of the Palisades Reservoir ($3,260) The total benefit, thus, is $124,740.

RECREATION

It was recognized at the time of authorization that the construction of Palisades Reservoir would provide some recreational benefits, but no attempt was then made to assign them monetary values Since that time, the National Park Service has made a field investigation to evaluate those benefits Another objective of the investigation was to obtain data on which to base a preliminary estimate of the extent and cost of facilities which should be constructed along the shore of the reservoir to permit the fullest possible enjoyment by the public of the recreational opportunities The findings of that investigation, presented in full in the appended report by the National Park Service, are summarized below

The investigation disclosed that the recreational value of the reservoir area will be enhanced by the construction of Palisades Dam. By coordinating its operation with that of other existing reservoirs in the Snake River watershed, especially Jackson Lake Reservoir, other, more substantial benefits will be realized

The reservoir basin receives little recreational use at present because there are superior attractions in the general vicinity, and the rough topography of the Palisades Reservoir basin and the fluctuation in water levels during the summer caused by withdrawals for irrigation will not promote greatly increased recreational use. A structure like Palisades Dam, together with the large body of water in the reservoir, however, will attract people to the area The National Park Service estimates that the reservoir will have an annual attendance of about 6,250 people In order that the recreational potentialities of the new body of water to be created by construction of Palisades Dam may be enjoyed fully by the public, it will be necessary to develop areas for parking, camping, and picknicking at three locations along the shore and to construct access roads to those areas In addition, it will be necessary to provide potable water and to construct such facilities as shelters, toilets, boat piers, and buildings at each area The capital cost of recreational facilities was estimated by the National Park Service at $98,789 in 1946 Under present construction costs, however, it is estimated that these facilities would cost $148,000

The National Park Service considers that the total allocation of costs to recreational purposes would be equivalent to twice the cost of the facilities constructed exclusively for recreation, or $296,000

As stated above, operation of Palisades will create much more substantial recreational benefits at Jackson Lake Reservoir, adjacent to Grand Teton National Park During the past 33 years, Jackson Lake Reservoir has supplied the entire irrigation storage water requirements of the irrigated land in the Upper Snake River Valley served from the South Fork of Snake River above American Falls This has necessitated heavy drafts on Jackson Lake and wide fluctuation in its level during the height of the tourist travel season from June 15 to September 1 Lowering of the lake level exposes wide stretches of unsightly reservoir bottom and, of course, detracts greatly from the scenic beauty and use of the area

The unsightly shore line resulting from the wide fluctuation in lake level, which has caused many complaints by thousands of tourists visiting this famous area every summer, will be largely eliminated by construction of Palisades Reservoir The storage requirements of the lands above American Falls would be met first from Palisades Reservoir Jackson Lake would be operated as a hold-over reservoir The latter, therefore, could be held full, with little if any fluctuation during the summer, except during extremely dry years such as 1931 1934, and 1935 In such years, Palisades storage would have been exhausted, and it would have been necessary then to draw irrigation storage from Jackson Lake Such a condition would have occurred in only 3 years during the past 60 years of stream-flow records This plan of operation would greatly increase the recreational value of Jackson Lake The National Park Service believe that an allocation to recreation purposes in the amount of $6,000,000 would be justified because of increased tourist use and because of enhancement to the beauty of the foreground of the Grand Tetons This figure has been adopted as the maximum amount of capital cost allocable on a non-reimbursable basis by reason of these benefits The $296,000 recreation benefit for Palisades Reservoir combined with the $6,000,000 recreation benefit from Jackson Lake Reservoir results in a total benefit of $6,296,000 When reduced to a yearly equivalent, this amount results in an annual benefit of $244,915

SUMMARY OF BENEFITS

The total annual benefits for the various functions served by the project are summarized as follows

Functions	*Annual benefits*
Irrigation	$1,981,000
Power	1,621,000
Flood control	899,330
Fish and wildlife	125,000
Recreation	241,915
Total	4,871,215

III Allocation of Costs

Several approaches to the allocation of costs were attempted before selection of the procedure adopted herein, which combines several methods The allocations of joint costs to recreation, to flood con

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fees will be adequate to meet
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in table 4

TABLE 4.—*Estimated total annual*
Palisades Dam

Function	
Irrigation	
Power	
Flood control	
Fish and wildlife	
Recreation	

[1] Will be paid by irrigators in addition to
[2] Includes $1,000 replacements
[3] Income from rentals will provide for op

trol, and to fish and wildlife are based on benefits, and, as nonreimbursable allocations, are deducted from the total joint costs, to establish the reimbursable obligation Allocation of that residual, reimbursable amount to irrigation and power is based upon an average of the priority of use and the alternative justifiable expenditure methods

NONREIMBURSABLE ALLOCATION

The total annual benefits for the various functions served by the project, as described in part II, above, amount to $4,871,245 These benefits were reduced to a net basis by subtracting the associated annual costs including operation, maintenance, replacements, runoff forecasting, and the annual equivalent of the direct construction costs The annual operation, maintenance, and replacement cost, and runoff forecasting associated with the storage system is estimated at $38,700 Of this amount, $14,000 has been assigned to operation and maintenance, $20,700 to replacements, and $4,000 to runoff forecasting The assignments to operation and maintenance and to replacements were based upon the operating history of the American Falls Reservoir The annual cost of runoff forecasting was based upon the expected program and historical costs for carrying on such work Subsequent assignment of appropriate parts of the annual cost of operation and maintenance and replacement to irrigation, power, and flood control was based upon the relative use of facilities for the various purposes Subdivision of the annual cost of runoff forecasting among irrigation, power, and flood control was based upon the estimated relative use of the data collected for each of the three functions involved

In addition to the operation and maintenance costs for the joint facilities, there are also direct annual operation and maintenance and replacement costs associated with specific functions These are estimated at $528,000 for the power facilities, $15,000 for the Grays Lake wildlife area, plus $1,000 for replacements of improvements, and $7,600 for the recreational facilities on Palisades Reservoir It is estimated that the income in the form of rentals and concessionaires' fees will be adequate to meet the annual costs on recreational facilities, which are not otherwise provided for in the project costs The total annual operation and maintenance and replacement costs are presented in table 4

TABLE 4.—*Estimated total annual operation and maintenance and replacement costs, Palisades Dam and Reservoir project, Idaho*

Function	Joint facilities			Direct operation and maintenance and replacements	Total
	Operation and maintenance	Replacements	Runoff forecasting		
Irrigation	$4,000	$6,400	$1,500	0	[1] $11,900
Power	7,000	3,000	1,000	$528,000	539,000
Flood control	3,000	11,300	1,500	0	15,800
Fish and wildlife	0	0	0	[2] 16,000	16,000
Recreation	0	0	0	[3] 7,600	7,600

[1] Will be paid by irrigators in addition to cost of storage space
[2] Includes $1,000 replacements
[3] Income from rentals will provide for operation and maintenance and replacements

The direct construction costs associated with each function were reduced to their annual equivalents by the application of a capital-recovery factor based upon a 50-year period and 3 percent interest. The total direct annual costs, including operation and maintenance, replacements, and direct construction, were then subtracted from the total benefits to secure the net benefits associated with joint costs, as presented in table 5.

TABLE 5.—*Estimated net annual benefits, Palisades Dam and Reservoir project, Idaho*

Function	Gross benefits	Operation and maintenance and replacements	Direct annual construction costs	Net annual benefits
Irrigation	$1,981,000	0	0	$1,981,000
Power	1,621,000	$539,000	$338,150	243,850
Flood control	899,330	15,800	0	883,530
Fish and wildlife	125,000	16,000	13,604	95,396
Recreation	244,915	0	5,757	239,158

The annual net benefits for the various functions normally considered as nonreimbursable were then converted to their present worth by the application of the annuity factor for 50 years at 3 percent interest to determine the allocation of joint costs to each function that would be justified on the basis of such benefits. The amounts thus secured (adjusted) amounted to $22,733,300 for flood control; $6,148,000 for recreation; and $2,455,000 for fish and wildlife. The full capitalized values of the net benefits to flood control, fish and wildlife, and recreation were allocated to those functions as their share of the joint costs. Combined, the allocation of joint costs to flood control, recreation, and fish and wildlife amounted to $31,336,300.

REIMBURSABLE ALLOCATION

The balance of the joint costs of $23,201,100 for other functions—irrigation and power—was allocated on the basis of the average of the priority of use and alternative justifiable expenditure methods of allocation. Under the priority-of-use approach, all of the remaining joint costs are assigned to irrigation, since it has prior use of the active space over power. Under the alternative justifiable-expenditure approach, single-purpose developments were considered which would result in the same benefits to irrigation and to power derived from the proposed project. It was found that the cost of the alternative, hydro-power project would be greater than the capitalized value of the net power benefit. Therefore, the capitalized value of the net benefit has been taken as the alternative justifiable expenditure. In the case of irrigation, however, the cost of a single-purpose irrigation reservoir was used because it was less than the capitalized value of the irrigation benefits. These figures are as follows.

Irrigation	$43,000,000
Power	6,274,000
Total	49,274,000

Irrigation accounted for 87
remainder, or 12 73 percent
joint cost of $23,201,100 resu
irrigation and $2,953,500 to
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TABLE 6.—*Allocation of estimated*
Palisades Dam

Function	
Irrigation	
Power	
Total	

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TABLE 7.—*Allocation of total co*

Function	
Irrigation	
Power	
Flood control	
Fish and wildlife	
Recreation	
Totals	

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Irrigation accounted for 87 27 percent of the total and power for the remainder, or 12 73 percent These percents applied to the remaining joint cost of $23,201,100 resulted in the assignment of $20,247,600 to irrigation and $2,953,500 to power By averaging the results of the two approaches, the allocation of $21,724,400 was made to irrigation and $1,476,700 to power (table 6)

TABLE 6.—*Allocation of estimated remaining joint costs to irrigation and power, Palisades Dam and Reservoir project, Idaho*

Function	Priority of use	Alternative justifiable expenditure	Average	
			Amount	Percent
Irrigation	$23, 201, 100	$20, 247, 600	$21, 724, 400	93 64
Power	0	2, 953, 500	1, 476, 700	6 36
Total			23, 201, 100	100 0

The allocation of joint costs to the various functions was then added to the direct construction costs to secure the total allocation to each function (table 7) These allocations are in terms of estimated costs

TABLE 7.—*Allocation of total costs, Palisades Dam and Reservoir project, Idaho*

Function	Joint costs	Direct costs	Total allocation
Irrigation	$21, 724, 400	0	$21, 724, 400
Power	1, 476, 700	$21, 565, 600	24, 042, 300
Flood control	22 733, 300	0	22, 733, 300
Fish and wildlife	2, 455, 000	350 000	2, 805, 000
Recreation	6, 148, 000	148, 000	6, 296, 000
Totals	54, 537, 400	22, 063, 600	76, 601, 000

With respect to the allocation to power, a further suballocation to irrigation pumping power is justified in keeping with Reclamation policy and is requisite to the pay-out analysis presented in part IV of this report Only the portion of the power investment allocated to commercial power is treated as interest bearing in the pay-out analysis

As described in part II, the power facilities of the Palisades project are designed to supply a large block of seasonal irrigation pumping power through operation in coordination with the proposed American Falls power plant and other Federal plants in the area Studies of this operation indicate that, under critical water conditions, and at full load development, the Palisades power plant will supply 21,000 kilowatts of power for pumping projects, and at the same time produce 33,000 kilowatts for commercial loads Under these critical water supply conditions, the Palisades Reservoir would have been drawn down to the dead-storage level by drafts for irrigation purposes, and with the power-plant capability thus limited by reason of operation at minimum head, there would be no generating capacity for production of surplus power Hence, the above loads are taken as a measure of the dependable capacity of the power plant, and provide a basis

for the suballocation of power facilities, 39 percent to irrigation pumping and 61 percent to commercial power The suballocation thus obtained is as follows

Commercial power	$14, 055, 800
Irrigation pumping power	8, 986, 500
Total	23, 042, 300

The irrigation pumping power produced by the Palisades power plant will be delivered, in the main, to Federal irrigation projects, such as the North Side pumping division of the Minidoka project, which are not a part of the Palisades project Since those projects will pay for the power at the prevailing rate, that revenue is credited to the Palisades project in the pay-out analysis Only that revenue, however, has been used as a measure of the irrigation pumping power benefits creditable to the Palisades project The total irrigation benefits arising from use of the irrigation pumping power should rightfully be credited to the projects using the energy

IV Economic Justification and Feasibility

The Palisades Dam and Reservoir project, in terms of both economic justification and financial feasibility, appears to be a desirable development Economic justification is shown by the favorable benefit-cost ratio of 1 37 to 1 00 Financial feasibility is indicated by the prospect of full recovery of all reimbursable costs from water users and power users

ECONOMIC JUSTIFICATION

Upon completing the allocation, benefit-cost ratios were prepared for each function and for the over-all project to determine the project justification To accomplish this, the total annual construction costs and the annual operation and maintenance and replacement costs were added for each function to secure the total annual costs (table 8)

TABLE 8.—*Annual costs for benefit-cost comparison, Palisades Dam and Reservoir project, Idaho*

Function	Construction [1]	Operation and maintenance and replacement	Total
Irrigation	$844 425	0	$844 425
Power	895 650	$539, 000	1, 434, 650
Flood control	583 530	15 800	899, 330
Fish and wildlife	103 015	16, 000	125, 015
Recreation	248 915	0	248, 915
Total	2 977 535	570 800	3, 548, 335

[1] Direct and joint cost amortized in 50 3 cars at 3 percent interest

For the purpose of allocating actual costs, when determined, the principles above discussed would be applied as follows Net benefits to fish and wildlife and recreation purposes in the amounts shown in table 5 will continue to be the measure of the allocation of joint facility costs to these purposes Net flood-control benefits in the amount shown in table 5, based on the 1946 evaluation, will continue to be the

measure of the allocati
such time as, under aut
by reason of a reevalu
1946 study or by reas
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control reservoirs for
Columbia River Allo
costs between irrigatio
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Total annual costs
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TABLE 9.—*Benefit-cost*

Function
Irrigation
Power
Flood control
Fish and wildlife
Recreation
Total

These ratios indicate
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The "308" Review R
prepared by the divisi
Oreg, recommends the
provide flood control fo
that the Palisades proje
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and Columbia Rivers, a
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for flood control This
The additional allocat
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of Palisades Reservoi
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measure of the allocation of joint facility cost to flood control, until such time as, under authority of law, there may be a revision upward by reason of a revaluation of the benefits taken into account in the 1946 study or by reason of the benefits attributable to the project in connection with the authorization of a general system of flood-control reservoirs for the control of floods in the main stem of the Columbia River Allocation of the remainder of the joint facility costs between irrigation and power will be determined by the use of the percentages shown in table 6 Direct, actual irrigation and power costs will, of course, have to be added to the apportioned remaining joint costs to arrive at the actual costs allocable to each The sub-allocation of the power allocation between commercial power and power for irrigation pumping will be made on the basis of the relative demand for power for these purposes, as established from time to time by the Secretary

Total annual costs were compared with the annual benefits (as developed in pt II) to show the project justification for each component part and for the over-all project (table 9)

TABLE 9.—*Benefit-cost ratios, Palisades Dam and Reservoir project, Idaho*

Function	Annual costs	Annual benefits	Ratio of benefits to costs
Irrigation	$844,425	$1,981,000	2.35–1.00
Power	1,434,650	1,621,000	1.13–1.00
Flood control	899,340	899,100	1.00–1.00
Fish and wildlife	125,015	125,000	1.00–1.00
Recreation	244,915	244,915	1.00–1.00
Total	3,548,135	4,871,215	1.37–1.00

These ratios indicate that the project is justified from the national point of view even under the present high construction costs

The "308" Review Report on the Columbia River and Tributaries prepared by the division engineer, Corps of Engineers, Portland, Oreg., recommends the authorization of a system of reservoirs to provide flood control for the Columbia River The report indicates that the Palisades project, in conjunction with that system of reservoirs, would contribute to the control of floods on the lower Snake and Columbia Rivers, and that the benefits resulting therefrom would warrant a substantial additional allocation to the Palisades project for flood control This has been tentatively estimated at $7,500,000 The additional allocation based upon the additional lower river flood-control benefits finally determined to result from the operation of Palisades Reservoir will not be available until the recommended system of reservoirs is authorized Consequently, such additional benefits were not taken into account in the allocation presented above Final determination of the flood-control benefits resulting from Palisades may also involve an increase in those used for establishing the allocation presented in table 7, inasmuch as the benefits used for that purpose are predicated on 1946 conditions In the event that additional allocations to flood control in Palisades Reservoir are found justifiable by reason of the authorization by the Congress of a system of reservoirs for flood control on the Columbia

River, or for other reasons, it is proposed that additional allocations in such amounts as may be finally agreed upon between the Secretary of the Army and the Secretary of the Interior be made to flood control when authorized on the basis of the procedure followed above

FINANCIAL FEASIBILITY

It is proposed that the allocations noted in part III to flood control, recreation, and fish and wildlife be made nonreimbursable Allocations to flood control are nonreimbursable as provided in the Reclamation Project Act of 1939, and allocations to fish and wildlife are proposed to be made nonreimbursable consistent with the policy established for projects authorized after August 14, 1946, by Public Law No 732 (79th Cong , 2d sess) Allocations to recreational purposes on a nonreimbursable basis are proposed in recognition of recreational values and the desire to maximize such values obtainable through public developments in the public interest

The allocations to irrigation and power will be reimbursable Under terms specified in the Federal reclamation laws, the allocation to irrigation and the suballocation of power facilities to be utilized for irrigation pumping on Federal reclamation projects will be repayable without interest The allocation to commercial power will be returned to the United States Treasury out of power revenues derived under rates computed in accordance with provisions of subsection 9 (c) of the Reclamation Project Act of 1939

The farm budget studies used in part II of this report for benefit determination were also used as the basis of determining farmers' repayment ability for Palisades storage space As the starting premise, it was assumed that farmers would pay no more for water than it was worth to them in use This amount is normally called the economic value of water, and it is measured by the increase in the family labor earnings less the value of the increased amount of unpaid family labor It does not purport to measure the total repayment ability but only that resulting from the increased supplies of irrigation water

The economic value of supplemental water delivered at the canal headgate varies according to the productivity of the irrigated land and the amount of water required for proper irrigation In the portion of the valley north of Idaho Falls where the soils are predominately gravelly and large canal diversions are required (8 to 12 acre-feet per acre), the estimated value ranges from $1 85 to $2 25 per acre-foot and averages about $2 per acre-foot In the remainder of the valley where the soils are relatively productive and diversions range from 5 to 8 acre-feet per acre, the estimated value ranges from $2 25 to $5 75 per acre-foot and averages $4 per acre-foot Since it is impractical to vary the charges for storage space, however, it will not be possible to realize these values in the form of repayment of the project costs In addition to this practical consideration, a portion of the value assigned to the Palisades water is attributable to an insurance factor—a value dependent on the frequency of recurrence of an extremely dry cycle It was assumed that such a cycle might occur once during the repayment period, though the available stream flow and precipitation records in that general locality tend

to show that a less-frequent rec
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For the purposes of this repo
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to show that a less-frequent recurrence may be expected If the latter proves to be the case, a lesser need and consequently a lesser value would be realized Taking account of both this uncertainty, which has a bearing on the value, and the fact that approximately 20 percent of the project water will be used on the area (about 115,000 acres) north of Idaho Falls where it would have a value at the low end of the range, it is concluded that a reasonable charge for storage space would be the equivalent of about $2 per acre-foot of water delivered to the canal headgates Any higher charge would result in an excessive burden on this large area which is badly in need of supplemental water, and would not take sufficient account of the uncertainty of the value predicated on its use as an insurance supply

The average annual delivery of water from Palisades Reservoir as shown in part II is expected to be 147,000 acre-feet Records of river operation indicate that approximately 12½ percent of this amount will be lost in transit to the canals Therefore, the actual diversion to canals is expected to be about 129,000 acre-feet annually At $2 per acre-foot, an annual return of $258,000 would be secured, or a total of $10,320 000 in 40 years On this basis, the storage space (1,145,000 acre-feet) would be valued at $9 01 per acre-foot It is proposed that this value be rounded and the rate set at $9 per acre-foot on the basis of the presently controlling 40-year repayment period A rate of this amount will result in a return of $10,305,000 by irrigation, and will leave $11,419,400 of the total irrigation allocation of $21,724,400 to be repaid by other means It is proposed to repay this amount by application of the interest component of the commercial power revenues supplemented as necessary by additional power revenues

Costs which are properly assignable for repayment out of power revenues include (1) the cost of purchase and installation of power generation, transforming and transmission equipment, including necessary buildings and incidental structures, (2) power operation and maintenance expenses, (3) power facility replacement costs, and (4) that part of the construction costs properly allocable to irrigation which is in excess of the water users' ability to repay within the period provided by law

For the purposes of this report, though not required by law, it has been assumed that repayment of these costs will be effected within 50 years from the time that the last unit of the power plant is placed in service Furthermore it has been assumed that there will be a development period of 6 years intervening between placing the first and last Palisades power units in service In order that revenues may continue to be derived over the entire 56-year repayment period, all necessary replacements of power and transmission equipment must be made The annual provision for replacements is estimated at $250,750 with all units installed, and the total for the repayment period, including the development period, would amount to $13,794,100 Likewise, annual operation and maintenance expenses for the power plant and transmission facilities, together with the share of the reservoir operation and maintenance costs allocated to power, are estimated to be $288,250 annually, or $15,833,300 during the repayment period The total construction costs and annual expenses to be returned from power revenues during the 56-year repayment period are summarized as follows

Construction costs	
Commercial power facilities	$14, 055, 800
Irrigation power facilities	8, 986, 500
Irrigation facilities	11, 419, 400
Annual expenses	
Power facility replacements	13, 794, 100
Operation and maintenance	15, 833, 300
Total	64, 089, 100

For the purpose of determining the financial feasibility of the project, the gross annual power revenue was obtained by applying to the estimated salable energy the following average power rates which meet the rate standards of subsection 9 (c) of the Reclamation Project Act of 1939

Class of energy	Mills per kilowatt-hour
Firm	4 0
Irrigation pumping	3 0
Nonfirm	2 0

The revenues thus estimated are expected to amount to $1,175,400 annually after the project is fully developed The total power revenues during the repayment period would be $64,526,000, leaving a surplus of $436,900

Since the operation of the Palisades power plant will be coordinated with that of the American Falls power plant, the two plants were treated as a system in the financial analysis The repayment period for the two-plant system was taken as 57 years because the American Falls power plant will be scheduled for operation 1 year earlier than the Palisades plant The results of the combined pay-out study show that the estimated system revenues would be sufficient to cover all Palisades and American Falls costs assignable for payment out of power revenues during the assumed repayment period The interest on the Palisades commercial power investment, as computed in the combined pay-out study, would amount to approximately $6,372,000 This amount, together with $5,047,400 of additional payments out of power revenues, would be sufficient to cover the $11,419,400 irrigation allocation which is in excess of the prospective repayment by water users

The repayment of reimbursable construction costs is summarized as follows

Irrigation allocation	
Payment by water users	$10, 305, 000
Interest earned on power investment	6, 372, 000
Additional payment out of power revenues	5, 047, 400
Power allocation paid from net power revenues	23, 042, 300
Total	44, 766, 700

If the Palisades power plant were operated independently, the return would be the same as shown above and the financial feasibility of the project would not be affected The interest component would be somewhat greater, however, and the amount of additional power revenues required for retirement of the irrigation costs would be correspondingly less

In order to demonstrate the feasibility of the entire project, the cost allocations and the repayment of the reimbursable costs, based on the combined pay-out study, are summarized in table 10

TABLE 10.—*Summary of cost allocation Palisades Dam and Res*

Allocation of costs	
Reimbursable	
Irrigation	
Power	
Commercial power	
Irrigation pumping power	
Total reimbursable	
Nonreimbursable	
Flood control	
Fish and wildlife	
Recreation	
Total nonreimbursable	
Total	
Repayment of reimbursable costs	
Irrigation	
Payments by water users	
Application of interest componer power investment	
Additional payment out of powe	
Power Payments from net power re	
Total reimbursable	

In addition to the purposes consi analysis, there is a possibility th including particularly municipal a by the project The extent of s justified is a matter to be worked and no attempt has been made to It is proposed, however, to set up might be made available for thes water for such purposes are found within this maximum will be mad in accordance with Federal reclama In no event would the price, excl quired to be paid, be less than storage space

The allocations and the term costs shown above, it has been costs The procedure to be foll flood-control benefits may be fou that purpose may prove warrant Should actual costs incurred diffe allocation of final cost would be presented in part III

There remain to be considered, to the repayment of the reimburs those costs differ for any reason Should those reimbursable joint-f necessary that the increase be pa

TABLE 10.—*Summary of cost allocation and repayment of reimbursable costs, Palisades Dam and Reservoir project, Idaho*

Allocation of costs		
Reimbursable		
Irrigation		$21,724,400
Power		
Commercial power	$14,055,800	
Irrigation pumping power	8,986,500	
		23,042,300
Total reimbursable		44,766,700
Nonreimbursable		
Flood control		22,733,300
Fish and wildlife		2,805,000
Recreation		6,296,000
Total nonreimbursable		31,834,300
Total		76,601,000
Repayment of reimbursable costs		
Irrigation		
Payments by water users	$10,305,000	
Application of interest component earned on power investment	6,372,000	
Additional payment out of power revenues	5,047,400	
		21,724,400
Power Payments from net power revenues		23,042,300
Total reimbursable		44,766,700

In addition to the purposes considered in the allocation and pay-out analysis, there is a possibility that other miscellaneous purposes, including particularly municipal and industrial water, will be served by the project The extent of such use that can reasonably be justified is a matter to be worked out with the irrigation interests and no attempt has been made to allocate costs to these purposes It is proposed, however, to set up a maximum amount of space that might be made available for these purposes Then if requests for water for such purposes are found to be justified, allocations of space within this maximum will be made and rates therefor would be set in accordance with Federal reclamation laws and departmental policy In no event would the price, exclusive of interest which may be required to be paid, be less than the amount charged for irrigation storage space

The allocations and the terms for repayment of reimbursable costs shown above, it has been indicated, are based on estimated costs The procedure to be followed in the event that increased flood-control benefits may be found and an increased allocation to that purpose may prove warranted has been presented in part III Should actual costs incurred differ from those estimated herein, the allocation of final cost would be in accordance with the principles presented in part III

There remain to be considered, however, procedures with respect to the repayment of the reimbursable joint-facility costs in the event those costs differ for any reason from the estimate appearing herein Should those reimbursable joint-facility costs be greater, it would be necessary that the increase be paid out of power revenues, inasmuch

as the charge of $9 per acre-foot of space in Palisades Reservoir used herein is substantially the maximum amount that water users could reasonably be expected to repay within a 40-year repayment period Should the reimbursable joint-facility costs be less than those presented above, it is proposed that half of the amount of the reduction in the irrigation allocation be subtracted from the amount payable by water users, provided, however, that the cost of storage space in no event be reduced below $7 75 per acre-foot

V Recommendations

It is recommended that—

1 The following principal works and facilities incidental thereto, constituting the Palisades Dam and Reservoir project, Idaho

Palisades Dam and Reservoir and facilities incidental thereto,

Palisades Power Plant, transmission lines and facilities incidental thereto,

Fish and wildlife facilities, including the installations at Grays Lake, and

Recreational facilities at Palisades Reservoir,

be authorized and reauthorized for construction, operation, and maintenance under the Federal reclamation laws (Act of June 17, 1902, 32 Stat 388, and acts amendatory thereof or supplementary thereto) substantially in accordance with the plans set forth in this report, with such modifications, omissions, or additions to the works as the Secretary of the Interior may find proper for the carrying out of the project to the end of providing active storage capacity in Palisades reservoir of approximately 1,200,000 acre-feet, of producing hydroelectric energy with a plant of approximately 112 500-kilowatt capacity, and providing transmission facilities in the Upper Snake River Valley for connection of this plant with other Federal power plants and pumping projects and for service to preference customers under the Federal reclamation laws, and of accomplishing the other purposes of the project

2 The use of the active capacity in Palisades reservoir be jointly for irrigation storage and flood control, the allocation of space to flood control to be determined from time to time as provided in the operating plan set out in appendix A of this report, as that plan may be modified as therein indicated

3 Of the total cost of construction of the Project, there be allocated on a nonreimbursable basis the following amounts

(*a*) On account of flood-control benefits, $22,733,300, subject to revision upward if, under authority of law, there is a reevaluation of the flood-control benefits attributable to Palisades Reservoir by reason of the authorization of any system for the control of floods in the main stem of the Columbia River or for any other reason

(*b*) On account of benefits to fish and wildlife, $2,805,000, on the condition that the Bureau of Reclamation make 55,000 acre-feet of Palisades capacity available as replacement storage for that now provided by Grays Lake substantially in accordance with the recommendations of the report of the Fish and Wildlife Service set out in appendix B, and that the other recommendations of that report be carried out by the Bureau of Reclamation to the extent practicable having regard for the primary purposes of the project

(c) On account of recreational benefits, $6,296,000, appropriations required to construct facilities required for realization of items (b) and (c) of this recommendation shall be made available to the Bureau of Reclamation for direct expenditure or for transfer to another Federal agency to construct the facilities

4 In connection with the nonreimbursable allocation of construction costs on account of fish and wildlife, flood-control and recreational benefits, portions of the annual costs of operation, maintenance, and replacement properly allocable to those benefits, including those related to the hydrologic network, be made on a nonreimbursable basis, the necessary appropriations for those purposes to be made to the Bureau of Reclamation for direct expenditure or for expenditure through the operating agencies

5. There be adopted the formula stated in part III of this report for allocating the reimbursable construction costs of the joint use facilities between irrigation and power and for allocating the power costs between commercial power and power for irrigation pumping; and the plan for assigning for repayment by irrigation-water users, construction costs of not to exceed $9 per acre-foot of capacity (this totaling $10,305,000 for 1,145,000 acre-feet of active capacity, exclusive of the 55,000 acre-feet allocated as replacement for Grays Lake storage) subject to reduction in accordance with a formula to be determined by the Secretary if reimbursable joint-use facility costs as finally determined are less than the estimate used in this report, the amount to be repaid by these water users, in no event, however, to be less than $7 75 per acre-foot of capacity

"6 The Secretary allocate not to exceed 85,000 acre-feet of active capacity of the reservoir, in addition to that set aside for the Grays Lake replacement, to municipal and other miscellaneous purposes, the water users contracting for the use of such capacity to be required to repay as minimum, exclusive of an appropriate share of operation and maintenance costs and of whatever interest is required to be paid, an amount per acre-foot equivalent to that required to be repaid by irrigation water users, but with authority in the Secretary to establish such higher charge as he finds to be proper

R J NEWELL, *Regional Director.*

APPENDIXES

FLOOD CONTROL

DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
Washington 25, D. C., December 31, 1947

Lt Gen RAYMOND A WHEELER,
Chief of Engineers, Department of the Army,
Washington 25, D C

MY DEAR GENERAL WHEELER On September 4–5, 1947, representatives of the Portland, Oreg., district and North Pacific division offices, Department of the Army and members of your staff met with representatives of our region 1 office and my staff in Washington to discuss an operating plan for Palisades Reservoir satisfying the requirements of regulations to be prescribed for the use of storage allocated to flood control as provided by section 7 of the Flood Control Act of December 22, 1944 A working group designated from our two agencies at that meeting developed an operating plan which was later modified in minor degree and submitted by the regional director in draft, dated November 3, 1947, to the district engineer The district engineer advised the regional director that with a one-word addition the operating plan would be satisfactory That change has been made

I am enclosing a copy of the final draft of the plan found satisfactory by the district engineer, for your consideration This plan provides for periodic forecasts, during the period February 1 to July 31 of each year, on the basis of precipitation, temperatures, snow surveys and runoff data, of the volume of runoff expected in the drainage basin of the Snake River above Heise, Idaho The storage space in Palisades Reservoir allocated to flood control is defined as that space in the reservoir, using the governing forecast of flood runoff for the year according to prescribed operating parameters, required to control the forecasted flood volume from the time in that year reservoir inflow first exceeds 20,000 second-feet through the succeeding July 31, by releases not exceeding 20,000 second-feet at the Heise gage insofar as that control can be effected by a reservoir capacity not exceeding 1,200,000 acre-feet Tentative allocations would be made on the basis of forecasts made before the governing forecast (as of the time inflow exceeds 20,000 second-feet), to control evacuation of space prior to that time Releases between 20,000 and 30,000 second-feet would be permitted in case the indicated capacity to control the flood exceeds the total active capacity, but would not exceed 30,000 second-feet except under the extraordinary circumstances of a full reservoir when release would equal inflow

Studies by our Regional office indicate that Palisades Reservoir, operated on a forecast basis as described in the plan, could adequately

control all of the known flo
second-feet or less at Heise,
floods which occurred prior t
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taken

Sincerely yours,

OFF

Mr MICHAEL W. STRAUS
Commissioner, Bureau
Department of the

DEAR MR STRAUS Ref
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Based on the plan of
December 31, 1947, I con
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control all of the known floods of Snake River to releases of 30,000 second-feet or less at Heise, Idaho Under the assumption that the floods which occurred prior to the establishment of snow surveys could have been forecasted within the same limits as developed for the later floods, all except two or three of the floods occurring since 1890 could have been reduced to 20,000 second-feet or less

It will be appreciated if you will indicate by letter to me your approval of this plan developed by our representatives and agreed upon at field level, and your intention to recommend to the Secretary of the Army that he prescribe regulations for operation of the reservoir, in accordance with this plan

It is my understanding that on the basis of this plan, the district engineer made a reevaluation of flood control benefits According to flood-damage data included in his letter of November 7, 1947, to Mr Newell annual flood-control benefits at 1943 price levels creditable to Palisades Reservoir are as follows

Annual damages with uncontrolled natural flows		$1, 208, 810
Incidental control by Jackson Lake	$136, 470	
Controlled by levee system	91, 820	
Remaining damages with levees and reservoirs	78, 190	
		309, 480
Annual benefits creditable to Palisades Reservoir		899, 330

The 1943 price level was used as corresponding more closely with the price levels for the period 1939–44 used in determining irrigation benefits than the 1947 price level also used by the district engineer It will be appreciated if you will in your reply, indicate whether or not you concur with the damages and benefits presented by the district engineer

I am making these two requests at this time in order that Mr Newell may complete those negotiations with prospective water users which must be concluded before construction of the dam is actually undertaken

Sincerely yours,

MICHAEL W STRAUS, *Commissioner.*

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington 25, D C, January 28, 1948

Mr MICHAEL W STRAUS,
Commissioner, Bureau of Reclamation,
Department of the Interior, Washington 25, D C

DEAR MR STRAUS Reference is made to your letter dated December 31, 1947, with which you enclosed a copy of the final draft of the plan of operation for the Palisades Reservoir prepared by a working group designated from our two agencies and requesting my approval of the plan and intention to recommend to the Secretary of the Army regulations for operation of the reservoir in accordance with the approved plan, and evaluation of benefits

Based on the plan of operations submitted with your letter of December 31, 1947, I concur in the estimate of flood-control benefits expected to accrue from the operation of the reservoir in accordance

with that plan As you know, our responsibility under section 7 of the 1944 Flood Control Act is for the prescription of regulations for the use of storage allocated for flood control or navigation The Department of the Army does not propose to issue regulations under section 7 of that act until the structure is placed in operation. I can assure you, however, that my recommendations to the Secretary of the Army for regulations under section 7 will be in accordance with the allocations for flood control as contained in the adopted plan of operation

Sincerely yours,

R. A WHEELER,
Lieutenant General, Chief of Engineers

OPERATING PLAN FOR PALISADES RESERVOIR, PALISADES PROJECT

The Bureau of Reclamation plans to construct and operate Palisades Reservoir for the optimum multiple-purpose use of the entire storage of 1,400,000 acre-feet To attain this objective, the storage below elevation, 5,497 feet mean sea level, approximating 200,000 acre-feet, will be reserved for dead storage and allocated exclusively to the production of hydroelectric power and the maintenance of a permanent pool for the preservation and propagation of fish and wildlife The remainder of the storage capacity in the amount of 1,200,000 acre-feet will be operated in the joint interests of irrigation and flood control governed by the best available runoff forecasts

The Bureau of Reclamation will forecast from time to time during the period from February 1 to July 31 of each year, on the basis of precipitation, temperature, snow survey, and runoff data, the volume of runoff that may be expected in the drainage area tributary to the Snake River above Heise, Idaho To the extent that such services can be arranged for by cooperative agreements, the Bureau of Reclamation will make the forecasts hereunder after consultation with the reclamation engineer of the State of Idaho or his authorized representative, and the Chief of Engineers or his authorized representative To facilitate the forecasting of runoff the Bureau of Reclamation will expand the existing hydrologic network and will establish and operate continuously a system for the efficient assembling and analyzing of the basic data Until such time as a better method of forecasting be devised, the forecasts will be based upon estimates of area-elevation weighted snow water content as determined from periodic snow surveys on or about February 1, March 1, April 1, and May 1, and upon precipitation for September of the preceding year A sample curve of the correlation between weighted snow water content on April 1 of a given year plus precipitation of the preceding September and the resultant runoff from April 1 to July 31, inclusive, of the year in question, is shown on plate II

To the end of accomplishing the optimum multiple use of the reservoir, the Bureau of Reclamation, beginning with the first year the reservoir is put into operation, will operate the reservoir on the basis of the forecasted runoff as nearly as practicable in accordance with the following plan

1 For the purpose of rules and regulations to be prescribed by the Secretary of the Army under section 7 of the Flood Control Act of

1944 (58 Stat 887, 890) is defined as follows

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R A WHEELER,
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ÓIR, PALISADES PROJECT

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1944 (58 Stat 887, 890) the storage space allocated to flood control is defined as follows

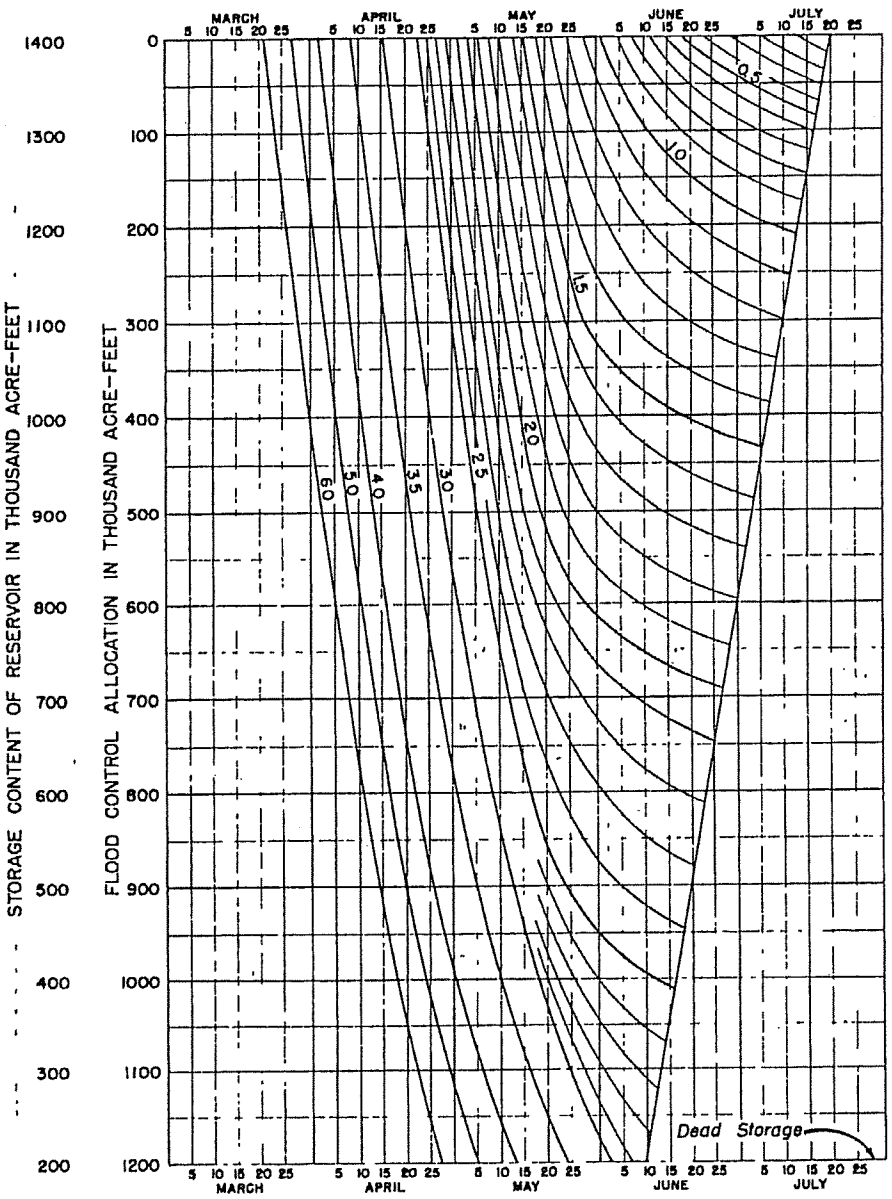
It is the reservoir space which, using the governing forecast of flood runoff for the year, according to the curves shown on plate I is required to the end of controlling the forecasted flood volume from the time in that year that reservoir inflow first exceeds 20,000 second-feet through the succeeding July 31 by releases from the reservoir during that period such that the flow at the Heise gage will not exceed 20,000 second-feet, insofar as this control can be accomplished with a reservoir capacity not exceeding 1,200,000 acre-feet The governing forecast of flood volume for each year is the forecast made as of the day when reservoir inflow in that year first exceeds 20,000 second-feet

The parameters shown on plate I, empirically derived from floods of record, are enveloping curves of the storage requirements for various volumes of total forecast runoff from any given date to July 31 The reservoir capacity required to control the flood to a discharge of 20,000 second-feet (or less) below the dam is indicated by the ordinate of the parameter corresponding to the forecasted runoff on the date when the inflow to the reservoir exceeds 20,000 second-feet

2 During the period of each year from the date of the first forecast about February 1 to the date of making the governing forecast for that year (approximately the middle of May) herein designated as the evacuation period, the reservoir will be operated in such a manner that the required reservoir level as determined by the parameters on plate I at the time inflow to the reservoir exceeds 20,000 second-feet can be attained with minimum practicable rates and fluctuations of discharge The rate of discharge during the evacuation period would be determined as follows The reservoir level required on or about May 15 (the date on which inflows normally may be expected to exceed 20,000 second-feet) would be estimated by use of the parameters on plate I and a May 15 forecast would be derived by deducting probable minimum inflows for the intervening period from the date of periodic forecasts beginning on February 1 The reservoir levels thus estimated would comprise tentative allocations of flood control space at which to aim the evacuation procedure The rate of discharge then would be selected as that required to release the probable maximum inflow for the period between date of forecast and May 15 plus the evacuation necessary to attain the required reservoir level indicated by the latest tentative allocation

3 From the date of the governing forecast each year through July 31 of that year herein designated the filling period, the reservoir shall be operated in such a manner that the reservoir content shown on the chart (pl 1) will be maintained but not be exceeded except when storage above those levels is required to limit the flows to 20,000 second-feet at Heise When the forecasted runoff indicates a required storage capacity in excess of the total active storage capacity of the reservoir, releases in excess of 20,000 second-feet will be made as required but at rates not to exceed 30,000 second-feet, except as indicated in paragraph 4 below

4 Whenever the pool shall have risen above elevation 5,620, the full reservoir level, due to an extraordinary excess of inflow over the maximum releases permitted under paragraph 1 or is expected to rise above that level within the next 48 hours, releases may be increased temporarily above those previously specified, so as to minimize the peak rate of release and to draw the reservoir down to the full reservoir level as rapidly as possible However, the maximum rate of such



NOTES:

1 *Parameters are anticipated flood run-off of Snake River at Heise in millions of acre-feet for the remainder of the season from any given date to July 31. The anticipated run-off is the forecasted flow at Heise less the storage capacity available in Jackson Lake. A minimum of two hundred thousand acre-feet of storage space in Jackson Lake will be held vacant until May 1 of every year unless the forecast indicates that storage should begin earlier to insure filling that space.*

2 *Storage reservation based upon a release which would give a maximum regulated flow at Heise of twenty thousand second-feet*

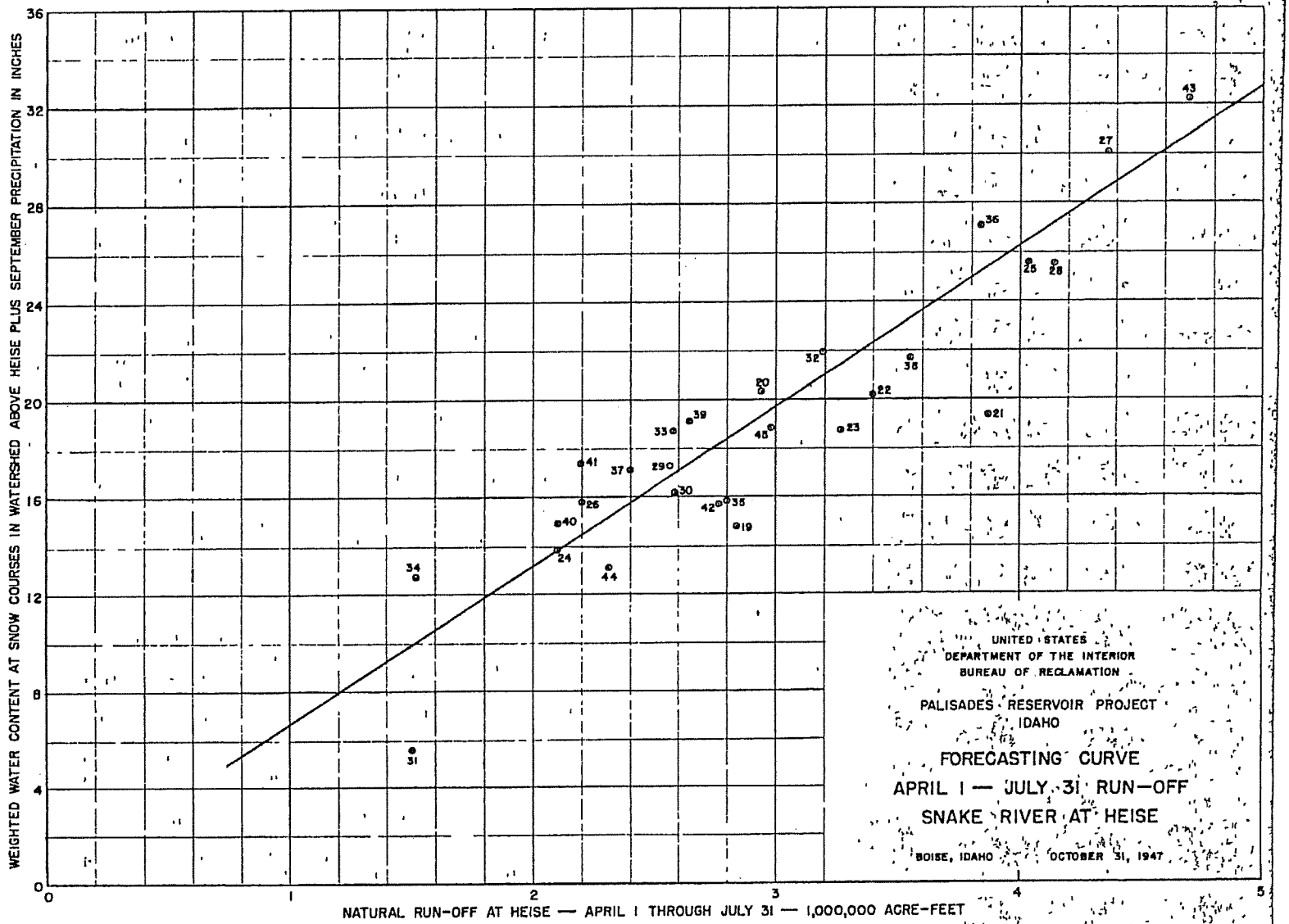
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

PALISADES RESERVOIR PROJECT
IDAHO

ALLOCATION OF FLOOD CONTROL SPACE

BOISE, IDAHO OCTOBER 31, 1947

75597 O - 51 (Face p. 32) No. 1



75597 O - 51 (Face p. 32) No. 2

extraordinary release shall not exceed the estimated maximum mean daily rate of inflow to the reservoir during the period when the reservoir level is above elevation 5,620

5 All reservoir releases made as herein provided are subject to the condition that no releases shall be made at rates or in a manner that would be inconsistent with whatever operating rules and regulations are laid down by the chief engineer of the Bureau of Reclamation for the purpose of protecting the dam and reservoir from damage

If operating experience indicates the desirability therefor, the Secretary of the Interior may, after consultation with the Secretary of the Army, modify from time to time the operating plan herein described with respect to the amount of space allocated to flood control each year on the basis of advance forecasts as to runoff, but no modification which would result in a substantial change in the control of floods herein stated to be the objective of the original operating plan shall be made without the concurrence of the Secretary of the Army Revisions of the rules and regulations prescribed under the Flood Control Act of 1944 will be made by the Secretary of the Army if, in his judgment, these are requisite because of such modifications in flood control space allocations Modifications in the operating plan not requiring the concurrence of the Secretary of the Army shall not be the occasion for a revision of the conclusions originally reached as to the flood-control benefits to be realized from the original operating plan or of the formula adopted for the allocation of construction costs to flood-control purposes

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A Report on Fish and Wildlife Resources in Relation to the Proposed Palisades Reservoir Project, Snake River, Idaho and Wyoming [1]

Basin and location: Pacific Northwest Basin, Snake River subbasin, Bonneville County, Idaho, and Lincoln County, Wyo
Sponsor Bureau of Reclamation, region 1, Boise, Idaho
Sponsor's status of project This project has been authorized under Reclamation Project Act of 1939 (53 Stat 1187) and construction has started
Source of engineering data Bureau of Reclamation, Region 1, Boise, Idaho
Field investigation August and September 1946 and May 1947
Report prepared December 1947

SUMMARY

The project proposes the construction of Palisades Dam at Calamity Point, Idaho, as a means of supplementing the water supply for 650,000 acres of irrigated lands, which now receive their water supply from the Snake River and its tributaries above Milner, Idaho The reservoir would furnish flood protection for 100,000 acres of highly developed agricultural land in the vicinity of the towns of Heise and Roberts, Idaho Plans for the project also include power development at the dam

The dam would be 262 feet high and would create a reservoir approximately 20 miles long and about 1 5 miles wide The normal high pool at elevation 5,620 feet would have a capacity of 1,400,000 acre-feet, with 16,150 surface acres

[1] Field work and report by river basin studies staff, Fish and Wildlife Service, region 1, Portland, Oreg.

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 54

"Status Report – Workings Of Palisades Water Saving Agreement"
United States Bureau of Reclamation (Aug. 5, 1968)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

130

STATUS REPORT

WORKINGS OF PALISADES WATER SAVINGS AGREEMENT

p. 8 Summ

U. S. Bureau of Reclamation

Boise, Idaho
August 5, 1968

Reclamation's
Exhibit No. 7014

STATUS REPORT
WORKINGS OF PALISADES WATER SAVINGS AGREEMENTS

This is a status report on important gains in the efficiency of total water use in the entire Upper Snake River Basin through the workings of Palisades water savings and exchange agreements that were entered into by some 57 water user entities as a part of the Palisades Dam Project authorization package.

The report also brings out (1) the complex nature of surface-ground water relationships existing in the entire Upper Basin, and (2) the necessity for evaluating individual project hydrologic operations as part of an integrated whole. The characteristics of the Upper Snake River hydrologic regimen are unique in Idaho, as well as the Northwest, and without consideration of the above-listed factors, certain indicated diversions for the purpose of manipulating ground water levels may appear to be excessive when related to irrigation diversion in the traditional manner.

The Palisades Project was initially authorized in 1941 as the Palisades Dam Project by the presentation to the President and the Congress of a report and findings of feasibility by the Secretary of the Interior on December 9, 1941 (H. Doc. No. 457, 77th Congress, 1st Session), under the provisions of section 9 of the Reclamation Project Act of 1939 (53, Stat. 1187). That finding incorporated the report of the Commissioner of Reclamation to the Secretary of the Interior, dated November 1, 1941. The supporting engineering and economic report of the Bureau of Reclamation was the product of investigations begun by the Bureau in 1932 to study means of providing urgently needed supplemental storage in the Upper Snake River Valley.

The report of the Commissioner of Reclamation to the Secretary of the Interior, noted above, stated that the success of the Palisades Reservoir would depend on the conservation of 135,000 acre-feet of water annually then being lost to the reservoir system because of winter diversions for stock and domestic purposes. The Bureau of the Budget, speaking for the President, approved the project with the reservation that submission of estimates of appropriations needed for construction be withheld until local interests had given satisfactory assurance to the Secretary of the Interior that winter diversions in certain areas above American Falls Dam would be eliminated.

A thorough investigation of water uses and requirements in the Upper Snake River Valley was made by the Bureau of Reclamation during the 1940's subsequent to the time the project was first authorized. The primary purpose of this investigation was to provide factual information to serve as a basis for the negotiation of agreements with water users of the Valley covering the elimination of water loss caused principally by winter operation of canals. An associated objective was to gather factual material from which to determine a proper distribution of the 433,593 acre-feet of reserved space in American Falls Reservoir. When the American Falls Reservoir, 120 miles downstream from Palisades, on the main stem of the Snake, was completed in 1927, the contemplated use of that space was for new land developments. For a number of years shortly following completion of American Falls Dam, the reservoir failed to fill because of an unprecedented drought. The reserved space was, therefore, leased to existing water users.

A report covering the results of the above investigation, entitled "Water Supply for Palisades Reservoir Project, Idaho" (Project Planning Report No. 1-5.17-1), was issued by the Bureau of Reclamation in October 1946. The report presented the results of extensive water supply studies of the Upper Snake River Valley, together with a proposed winter water-saving program and a plan for development of new land. After the issuance of this report, the Bureau of Reclamation carried on lengthy negotiations with the water users in an effort to obtain the maximum possible conservation of water and also to obtain agreement as to an equitable distribution of the reserved space in American Falls Reservoir.

The practice of diverting water into the canals in winter for stock and domestic purposes, established many years ago, was deep rooted and difficult to alter. Various proposals were made by the United States, out of which a compromise evolved. The compromise involved these principal points: (1) the elimination by the water users at their own expense of winter diversions in order to conserve water for storage in Palisades and American Falls Reservoirs; (2) the curtailment of the use of water for power generation at Minidoka Dam for the financial account of the Minidoka Project to conserve additional water for storage in American Falls, Island Park, and Palisades Reservoirs; (3) the coordinated operation of the reservoir system for maximum storage water yields; (4) the establishment of uniform storage holdover privileges in all reservoirs; (5) a permanent exchange of contract storage rights between American Falls and Jackson Lake Reservoirs to reduce storage delivery losses; (6) the distribution of American Falls Reservoir space as follows: 315,000 acre-feet to existing lessees, 47,593 acre-feet to the North Side Pumping Division of the

Minidoka Project, and 71,000 acre-feet to the Michaud area; (7) the recognition of existing rights to the diversions made during periods of flood flow; (8) the commitment of Palisades users to allow that reservoir to be pooled with the next 300,000 acre-feet of storage added to the system; and (9) the clarification of storage and diversion rights in connection with American Falls Reservoir.

The winter water-saving program involves the elimination of the long-standing practice of supplying domestic and stock water to farmsteads by operating irrigation canal systems throughout the year. A substantial portion of the water diverted into the canals during the winter percolates to the underlying groundwater reservoir which is not tributary to the Snake River above Milner Dam. Hence, the elimination of winter seepage losses from the canals in such nontributary areas increases the amount of water available for storage. State of Idaho water rights to divert water in winter for stock and domestic purposes were clearly established by actual use over many years. Reliance on the canals for domestic and stock water was continued for many years because of the high cost of drilling deep wells and pumping water from them and because it is more convenient to water livestock from canals than from wells. Furthermore, there was no real incentive to save water until Palisades Reservoir was constructed on the Snake River because the water would otherwise spill past Milner Dam. Since the water users involved in the winter water-saving program incurred considerable expense in equipping their farmsteads with wells and lost the convenience of watering livestock from canals, it was understood among all prospective participants that those water users who make possible the saving would be entitled to a special right to store the saved water to the extent required to fill their share of the storage capacity in American Falls and Palisades Reservoirs.

By coordinating the operation of all reservoirs in the system, the maximum volume of storage water can be carried over in the reservoir system from wet cycles to dry cycles. The amount of that carryover is substantially greater than would be the case if Palisades were operated independently from the existing system. Through this coordination, Jackson Lake can be operated primarily as a holdover reservoir, and only limited irrigation water is drawn from it until Palisades Reservoir has been emptied. The additional, usable return flow made available from application of this holdover storage will augment further the supply of irrigation water during drought periods. Operation studies of the reservoir system, taking account of these factors, show that storage in Palisades Reservoir and the elimination of winter diversions and curtailment of power at Minidoka Dam would have made enough additional water available to eliminate all shortages on existing projects during the past 79 years, except those in the extremely

dry years of 1934 and 1935. Even in those years, however, an appreciable reduction would have been made in the shortages.

Resolutions giving assurance that the water users would agree to water saving provisions which would satisfy the conditions of the authorizing document for Palisades Dam were obtained in 1949 from the governing bodies of the interested water user groups. On the basis of these resolutions some preliminary construction contracts were executed late in fiscal year 1949. In the early 1950's, these resolutions were confirmed by formal contracts with the water users. Over 50 contracts, generally referred to as the "Palisades Contracts," were negotiated over a period of several years. In addition to the annual water saving of 135,000 acre-feet, established as a prerequisite to the beginning of construction of Palisades Dam, these contracts provide a basis for possible maximum annual savings of 276,000 acre-feet by curtailment of winter diversions by canals diverting at Milner Dam.

Under the contracts each of 41 irrigation districts and companies agreed to eliminate winter diversions for a period of 150 consecutive days during the November 1 through April 30 period each year. The estimated average annual saving from such curtailment is 143,000 acre-feet, of which 135,000 acre-feet is attributable to curtailment by canals above American Falls Dam and 8,000 acre-feet by those diverting below that point. Under the contracts, such curtailment was to begin with the 1958-1959 storage season. Partial curtailment of winter diversions actually began 4 or 5 years prior to this time and increased gradually throughout this period. The full annual saving of 143,000 acre-feet has been accomplished each storage season, beginning with the 1958-1959 storage season.

In addition to the mandatory annual savings of 143,000 acre-feet above, the contracts provide a basis for an additional savings by curtailment of winter diversions by the North and South Side Twin Falls canals diverting at Milner Dam. The possible maximum annual savings is estimated to be 276,000 acre-feet. Although this water saving is exercised only at the option of the two companies, winter diversions have been substantially reduced each winter, beginning with the winter of 1960-61. It appears that the companies' decision to exercise this option during the 1960-61 storage season was prompted by the low storage levels in the reservoir system at the end of the 1960 irrigation season. This decision was indeed timely in view of the fact that streamflow in 1961 was much below normal, the reservoir system failed of filling by a substantial amount, and a number of areas experienced irrigation water shortages. Without Palisades Reservoir and winter water saving actually accomplished, the shortages would have

been much more severe. Had the curtailment of winter diversions at Milner Dam been started in 1959 the water shortages in 1961 would probably have been eliminated.

Winter diversions at Milner Dam have been substantially reduced each winter since 1961. The amount of the reduction varies from year to year, ranging from a maximum of 260,000 acre-feet in the winter of 1961-62 to a minimum of 198,000 acre-feet in the winter of 1965-66. In addition to the obvious benefits from saving water for storage in the reservoirs the maintenance of the canal system is more effective and less costly when the canals are shut off in winter. For this reason, it is expected that such savings will be increased in future years and eventually the maximum annual savings of 276,000 acre-feet will probably be realized with the canals shut off from November 1 to April 1 in all years.

Under the Palisades contracts the water saved by curtailment of winter diversions is first credited to the company or district making the saving until the reservoir space owned by the particular district or company is filled. When this occurs the saved water accrues to the remaining unfilled space in the reservoir system. Thus, the water saving program provides benefits to the entire irrigated area which has interests in the reservoir system.

The Palisades contracts have a third water saving feature. These contracts provide for limiting the use of water for power generation at American Falls and Minidoka Dams below the amounts that would accrue to rights for power production at these two dams. Such curtailment in the exercise of power rights at Minidoka Dam will result in a loss of generation of units 1 to 6 of that powerplant but will result in saving of water for storage for irrigation use. The water so saved is credited to American Falls, Island Park, and Palisades Reservoirs. In compensation for such losses in power generation, replacement power is provided to the Minidoka Power system, and, based on a moving average of the net annual amount of replacement power and energy required, the costs thereof are charged to the beneficiaries of the resultant water saving and the financial benefit is credited to the water users of the Minidoka Project. This provision for sharing the cost by water users actually benefited provided an equitable solution to a long-standing controversy.

The extent of water savings from curtailment of power rights varies from year to year. The saving is fully effective only during prolonged cycles of low streamflow when the available streamflow is insufficient to fill the reservoirs and the water can be stored and used. In a number of years there is enough streamflow to fill the reservoirs without any water saving.

During a prolonged cycle of low runoff such as occurred 1930-35, it is estimated that the effective saving from curtailment of power rights would be 2,700,000 acre-feet or an average of 450,000 acre-feet annually.

The water saving from curtailment of power rights actually overlaps the water savings from curtailment of winter diversions at Milner Dam to the extent that power releases can be used to satisfy diversion requirements at Milner Dam. Out of the estimated average annual saving of 450,000 acre-feet from curtailment of power rights during low runoff cycles up to a maximum of 276,000 acre-feet may be creditable to curtailment of winter diversions at Milner Dam. Thus, the net annual increase in storable water from curtailment of power rights is 174,000 acre-feet.

The Palisades contracts provide for maximum annual water savings during prolonged cycles of low streamflow as follows:

	Acre-feet
Elimination of winter diversions above American Falls Dam and at Minidoka Dam	143,000
Curtailment of winter diversions at Milner Dam	276,000
Curtailment of power rights at Minidoka Dam	174,000
Total annual savings	593,000

Thus, the potential savings for a six-year drought period such as occurred 1930-35 would be in excess of 3.5 million acre-feet.

It was recognized in the negotiations that led to the water savings and exchange arrangements necessary for the construction of Palisades Reservoir that these arrangements would require adjustments in the court decrees that govern the distribution of water in the Upper Snake River Valley, Water District 36. All the water users agreed to the arrangements on the basis that this would be accomplished and that all the compromises agreed to in the negotiations would be included in the resulting court decree.

Records of irrigation diversions in the Henrys Fork Valley indicate annual diversion rates in excess of 10 acre-feet per acre in many areas. To those not understanding Upper Snake River surface water-ground water relationships, these high diversion rates may appear unreasonable and imply poor management and inefficient application of water. It should be recognized that present practices evolved from past failures in attempting

to irrigate the area by conventional means and that so far subirrigation is the only method fully demonstrated to be practical in this area. If reuse of return flow and the use of groundwater in the nearby Mud Lake area is considered the overall diversion rate compares favorably with those elsewhere on the Snake River.

The present heavy use of water in the Henrys Fork Valley results from subirrigation of about 70,000 acres of land in that area. An additional 40,000 acres is irrigated by conventional surface irrigation. The practice of subirrigation was established during the early stages of development, after irrigation by customary surface methods proved a failure. A wide variety of crops is grown by maintaining the water table within reach of the plant roots during the summer instead of by spreading water on the surface of the ground in the usual manner. The hydraulic properties of the underground reservoir permit the raising and lowering of the water table by varying the flow of water in the canals. The canals must be operated at partial capacity during winter to hold the water table at a level from which it can be raised to the plant roots in the spring after the ice and snow in the canals have melted. Present schedules of annual diversion to the subirrigated lands have been evolved through the experience of over 60 years in manipulating the water table to give maximum crop production during the relatively short growing season in that area.

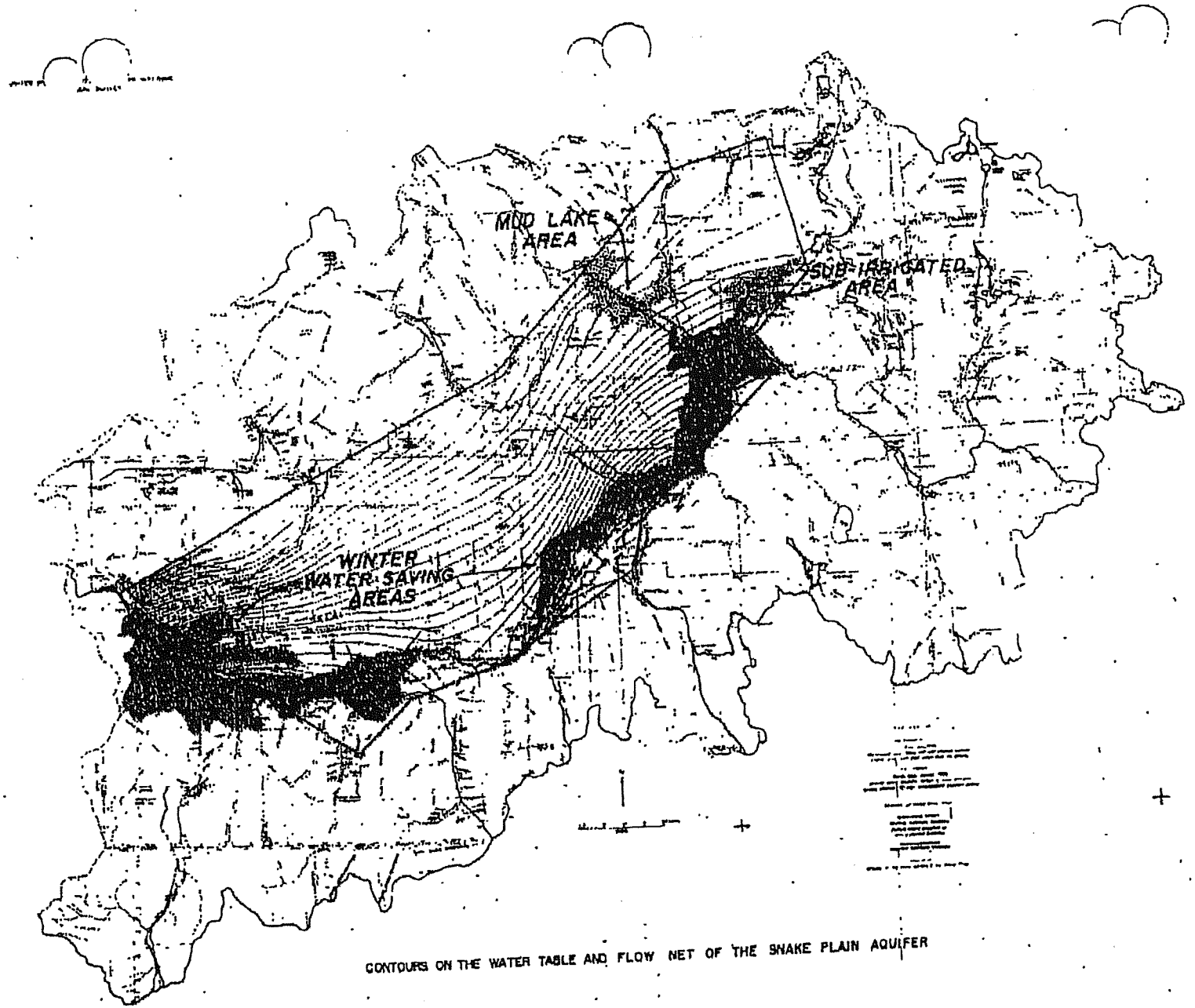
Hydrographic studies have shown that relatively large quantities of groundwater move westward toward Mud Lake as a result of maintaining high water tables in the Henrys Fork Valley. This is well illustrated by the attached chart, "Contours on the Water Table and Flow Net of the Snake Plain Aquifer." This groundwater movement has caused a phenomenal increase in the inflow to Mud Lake since 1900 and is the major source of supply for approximately 75,000 acres now irrigated in that area. If in addition to the approximately 110,000 acres actually irrigated in the Henrys Fork Valley credit is also given for the 75,000 acres irrigated in the Mud Lake area and for reuse of return flow in the Henrys Fork Valley, the overall diversion efficiency is comparable to that elsewhere on Snake River. For example, the total diversion from Fall River, Henrys Fork River, and Lower Teton River during 1967 was 1,017,000 acre-feet. The irrigation season return flow was 186,000 acre-feet. On this basis, the net diversion for 185,000 acres in the general area, including Mud Lake, was 4.35 acre-feet per acre. In view of these facts, any alteration in the present use of water in the Henrys Fork Valley would affect not only the established irrigation economy in that valley, but also that in the Mud Lake area.

Summary

From the very inception of Water District 36 (1916) and the Committee of Nine (1919) the area can be credited with many innovations of progressive water management which can best be summarized as a water banking operation. These include operation of storage reservoirs as a system rather than a collection of individual reservoirs. Although there is a strict paper accounting of water accruals to individual reservoirs by priority dates, advantage has been taken of the physical diversity of the system by holding carryover storage as far upstream as possible to the advantage of all. Much litigation was avoided and a smooth-running operation resulted from agreement on such factors as evaporation and conveyance losses and bank storage. The area pioneered water exchanges in Idaho, culminating in a future ground water-surface water exchange imbedded in the Lower Teton Project authorization. A continuation of this principle will be the salvation of the Salmon Falls, Oakley Fan, and other water-deficient areas in Upper Snake River Basin.

The elimination of winter water runs for stock and domestic use, the establishing of uniform storage water holdover privileges, the coordinated system-wide operation of reservoirs, the subordination of winter power production to conserve storage, and the exchange of storage space to effectuate its use closer to points of diversion, all have resulted in better distribution and utilization of the waters of Snake River. These water conservation practices will provide a water savings in excess of 600,000 acre-feet annually to augment dry-year supplies. This is a significant step in the direction of obtaining full use of the available water supplies in Snake River. In the future more needs to be done in water saving through added cooperation among all water users. These include additional reservoirs, canal lining programs, further water exchanges, including ground water, improved management of water distribution, and increased efficiency of on-farm application and use of water.

This is the situation as it exists today. However, as our technology of water use continues to expand and our available water supplies become more fully utilized, better and more efficient methods of irrigating the lands in the Snake River Valley can be developed. Certainly we should endeavor to make the most efficient use of all our natural resources and as new and better techniques are developed we should put them to their maximum use. The accomplishments so far have resulted from the cooperative effort of the entire area. Future developments for the conservation and use of Idaho's land and water resources will require similar mutual understandings and cooperation by all concerned parties.



CONTOURS ON THE WATER TABLE AND FLOW NET OF THE SNAKE PLAIN AQUIFER

60 Stat. 102

SEC. 2. Section 402 of such Act, as amended (50 U.S.C., sec. 352), is hereby amended by striking out the following: "*Provided*, That in order to be entitled to free air-mail postage under this Act, a State balloting unit, composed of ballot, voting instructions, and envelope or envelopes, must not exceed in weight the total of one ounce".

Approved September 29, 1950.

[CHAPTER 1114]

AN ACT

September 30, 1950
[S. 2195]
[Public Law 884]

To authorize the Palisades Dam and Reservoir project, to authorize the north side pumping division and related works, to provide for the disposition of reserved space in American Falls Reservoir, and for other purposes.

Palisades Dam and Reservoir project, Idaho.
Reauthorization

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Palisades Dam and Reservoir project, Idaho, heretofore authorized under the provisions of the Federal reclamation laws by the presentation to the President and the Congress of the report of December 9, 1941 (House Document Numbered 457, Seventy-seventh Congress, first session), by the Secretary of the Interior (herein called the Secretary), is hereby reauthorized under the Federal reclamation laws for construction and operation and maintenance substantially in accordance with that report as supplemented and modified by the Commissioner's supplemental report and the recommendations incorporated by reference therein, as approved and adopted by the Secretary on July 1, 1949, and as including, upon approval by the President of a suitable plan therefor, facilities for the improvement of fish and wildlife along the headwaters of the Snake River, such facilities to be administered by the Fish and Wildlife Service: *Provided*, That, notwithstanding recommendations to the contrary contained in said report (a) the Secretary shall reserve not to exceed fifty-five thousand acre-feet of active capacity in Palisades Reservoir for a period ending December 31, 1952, for replacement of Grays Lake storage, but no facilities in connection with the proposed wildlife management area at Grays Lake shall be built and no allocation of construction costs of the Palisades Dam and Reservoir by reason of providing replacement storage to that area shall be made until the development and operation and maintenance of the wildlife management area has been authorized by Act of Congress, and (b) the nonreimbursable allocation on account of recreation shall be limited to the costs of specific recreation facilities in an amount not to exceed $148,000.

Construction and operation
North side pumping division, Minidoka project

SEC. 2. There are hereby authorized for construction and operation and maintenance under the Federal reclamation laws: (a) the north side pumping division of the Minidoka project, this to be substantially in accordance with the Commissioner's report and the recommendations incorporated by reference therein, as approved and adopted by the Secretary on July 1, 1949: *Provided*, That, notwithstanding recommendations to the contrary contained in said report, (1) lease or sale of that portion of the power service system extending from the substations to the pumping plants may be made to any entity on terms and conditions that will permit the United States to continue to provide power and energy to the pumping facilities of the division, and, in the event of lease or sale to a body not entitled to preference in the purchase of power under the Federal reclamation laws, will preserve a reasonable opportunity for subsequent lease or sale to a body that is entitled to such privilege, (2) no allocation of construction costs of the division shall be made on a nonreimbursable basis by reason of wildlife benefits, and (3) there shall be, in lieu of a forty-year period, a basic repayment period of fifty years for repayment,

American Falls Dam power facilities.

in the manner provided in the recommendations, of the irrigation costs assigned for repayment by the water users; and (b) for the furnishing of electric power for irrigation pumping to that division and for other purposes, power generating and related facilities at American Falls Dam. These generating and related facilities, to the extent the Secretary finds to be proper for pay-out and rate-making purposes, may be accounted for together with other power facilities operated by the Secretary that are interconnected with the American Falls Dam power facilities, excluding any power facilities the net profits of which are governed by subsection I of section 4 of the Act of December 5, 1924 (43 Stat. 703). The authorizations set forth in the preceding sections 1 and 2 shall not extend to the construction of transmission lines, substations, or distribution lines unless such facilities are for the purposes of interconnecting the power plants herein authorized, or for the delivery of power and energy for use in connection with the construction, operation, and maintenance of the projects herein authorized.

43 U. S. C. § 501

Contract authorizations.

SEC. 3. The Secretary is hereby authorized to contract, under the Federal reclamation laws, with water users and water users' organizations as to the use for their benefit of the heretofore reserved storage capacity in American Falls Reservoir. Not to exceed three hundred and fifteen thousand acre-feet of that capacity shall be made available to those who have heretofore had the use of reserved capacity under lease arrangements between the United States and the American Falls Reservoir district of Idaho, the distribution of this capacity among contractors to be determined by the Secretary after consultation with the interested water users' organizations or their representatives. Of the balance of the reserved capacity, forty-seven thousand five hundred and ninety-three acre-feet are hereby set aside for use under contract for the benefit of the lands comprising unit A of the north side pumping division of the Minidoka project, and seventy-one thousand acre-feet are hereby set aside for use under contract for the benefit of those lands in the Michaud area which may hereafter be found to be feasible of development under irrigation. Contracts for the repayment of construction charges in connection with reserved capacity shall be made without regard to the second proviso of the tenth paragraph (Minidoka project, Idaho) under the heading "Bureau of Reclamation" of the Act of June 5, 1924 (43 Stat. 390, 417). Such contracts shall require the repayment of all costs determined by the Secretary to be allocable to the reserved capacity, less, in the case of the three hundred and fifteen thousand acre-feet of capacity above described, three hundred and eighty-six four-hundred-and-thirty-fourths of the revenues realized, after deduction of what the Secretary determines to be an appropriate share for operation, maintenance, and replacements, from the leasing of that capacity for irrigation purposes up to the time water first becomes available in Palisades Reservoir and, in the case of the capacity set aside for the north side pumping division, all other revenues realized from or connected with the reserved capacity and which the Secretary determines to be available as a credit against the cost allocable to that division.

Repayment of construction charges

43 U. S. C. § 600.

Continuation of construction

SEC. 4. (a) The continuation of construction of Palisades Dam beyond December 31, 1951, or such later controlling date fixed by the Secretary as herein provided, is hereby made contingent on there being a finding by the Secretary by the controlling date that contracts have been entered with various water users' organizations of the Upper Snake River Valley in Idaho that, in his opinion, will provide for an average annual savings of one hundred and thirty-five thousand acre-feet of winter water. If in the Secretary's judgment the failure

of the requisite organizations so to contract by the controlling date at any time is for reasons beyond the control of those organizations, he may set a new controlling date but not beyond December 31, 1952.

Repayment contracts

(b) Repayment contracts made in connection with the use of capacity in either American Falls or Palisades Reservoir may include, among other things, such provisions as the Secretary determines to be proper to give effect to recommendations referred to in section 1 of this Act, and particularly those concerning the continued effectiveness of the arrangements as to the minimum average annual water savings.

Appropriation authorized.

SEC. 5. There is hereby authorized to be appropriated, out of any funds in the Treasury not otherwise appropriated, the sums of not to exceed $76,601,000 for the Palisades Dam and Reservoir project, Idaho, $11,395,000 for the Minidoka project north side pumping division, Idaho, and $6,600,000 for the American Falls power plant.

Approved September 30, 1950.

[CHAPTER 1115]

AN ACT

September 30, 1950
[S. 2609]
[Public Law 865]

To provide a system for the treatment and rehabilitation of youth offenders, to improve the administration of criminal justice, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 4201 of title 18 of the United States Code is amended to read as follows:

Title 18, U. S. Code, amendments.
62 Stat. 854.
18 U. S. C., Sup. III, § 4201

"SEC. 4201. Board of Parole; members; salaries.

"There is hereby created in the Department of Justice a Board of Parole to consist of eight members to be appointed by the President, by and with the advice and consent of the Senate. The salary of each member of the Board shall be fixed in accordance with the Classification Act of 1923, as amended, and any Acts supplementary thereto or in substitution therefor. The members of the Board first appointed under this section shall be appointed for terms as follows: Two for two years, two for three years, two for four years, and two for six years, respectively, from the effective date of this section. The term of office of a successor to any member shall expire six years from the date of the expiration of the term for which his predecessor was appointed, except that any person appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term. Upon the expiration of his term of office, a member of the Board shall continue to act until his successor shall have been appointed and qualified. The Attorney General shall from time to time designate one of its members to serve as Chairman of said Board and delegate to him the necessary administrative duties and responsibilities."

63 Stat. 972, 954
5 U. S. C., Sup. III, §§ 1071–1153
Ante, pp. 232, 262, *post*, p. 1100.

Federal Youth Corrections Act
62 Stat. 856
18 U. S. C., Sup. III, § 5001 *et seq.*

SEC. 2. Part IV of title 18 of the United States Code is hereby amended by inserting therein a new chapter immediately after chapter 401 thereof, as follows:

"CHAPTER 402—FEDERAL YOUTH CORRECTIONS ACT

"Sec.
"5005. Youth Correction Division.
"5006. Definitions.
"5007. Duties of members; meetings.
"5008. Officers and employees.
"5009. Rules of Division.
"5010. Sentence.
"5011. Treatment.
"5012. Certificate as to availability of facilities.

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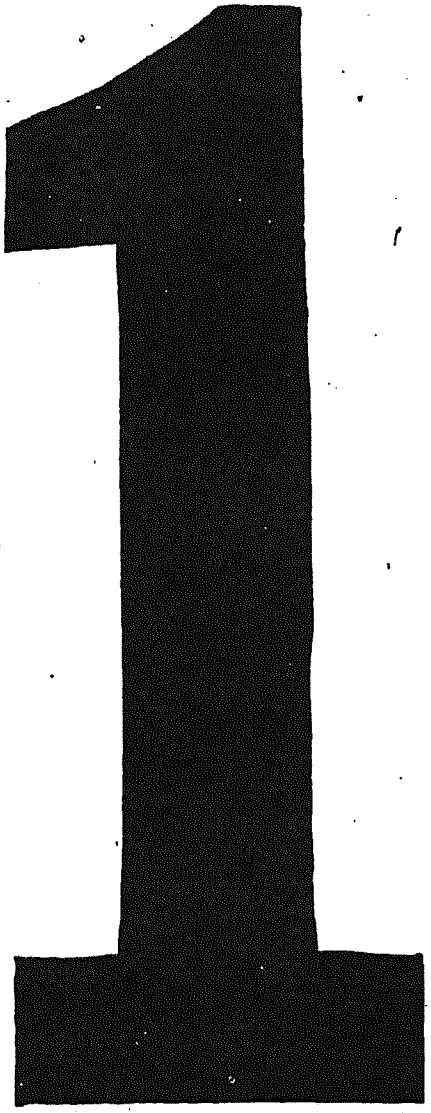
EXHIBIT 55

Excerpts, "The Palisades Dam And Reservoir Project – Hearings Before A Subcommittee on Irrigation And Reclamation of the Committee on Public Lands, House of Representatives and a Special Subcommittee of the Committee on Interior and Insular Affairs, United States Senate," (Aug. 8, 9, 10, 11, 12, 18 and 19, 1949) (81st Congress, 1st Sess.)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043,



THE PALISADES DAM AND RESERVOIR PROJECT

HEARINGS

BEFORE A

SUBCOMMITTEE ON IRRIGATION AND RECLAMATION OF THE

COMMITTEE ON PUBLIC LANDS

HOUSE OF REPRESENTATIVES

AND A

SPECIAL SUBCOMMITTEE OF THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

UNITED STATES SENATE

EIGHTY-FIRST CONGRESS

FIRST SESSION

ON

H. R. 5506

A BILL TO AUTHORIZE THE PALISADES DAM AND RESERVOIR PROJECT, TO AUTHORIZE THE NORTH SIDE PUMPING DIVISION AND RELATED WORKS, TO PROVIDE FOR THE DISPOSITION OF RESERVED SPACE IN AMERICAN FALLS RESERVOIR, AND FOR OTHER PURPOSES

AUGUST 8, 9, 10, 11, 12, 18, AND 19, 1949

Serial 20

Printed for the use of the House Committee on Public Lands and the Senate Committee on Interior and Insular Affairs

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facilities the net profits of which are governed by subsection 1 of section 4 of the Act of December 5, 1924 (43 Stat. 703).

SEC. 3. The Secretary is hereby authorized to contract, under the Federal reclamation laws, with water users and water users' organizations as to the use for their benefit of the heretofore reserved storage capacity in American Falls Reservoir. Not to exceed three hundred and fifteen thousand acre-feet of that capacity shall be made available to those who have heretofore had the use of reserved capacity under lease arrangements between the United States and the American Falls Reservoir District of Idaho, the distribution of this capacity among contractors to be determined by the Secretary after consultation with the interested water users' organizations or their representatives. Of the balance of the reserved capacity, forty-seven thousand five hundred and ninety-three acre-feet are hereby set aside for use under contract for the benefit of the lands comprising unit A of the north side pumping division of the Minidoka project, and seventy-one thousand acre-feet are hereby set aside for use under contract for the benefit of those lands in the Michaud area which may hereafter be found to be feasible of development under irrigation. Contracts for the repayment of construction charges in connection with reserved capacity shall be made without regard to the second proviso of the tenth paragraph (Minidoka project, Idaho) under the heading "Bureau of Reclamation" of the Act of June 5, 1924 (43 Stat. 360, 417). Such contracts shall require the repayment of all costs determined by the Secretary to be allocable to the reserved capacity, less, in the case of the three hundred and fifteen thousand acre feet of capacity above described, three hundred and sixty-eight four-hundred-and thirty-fourths of revenues realized, after deduction of what the Secretary determines to be an appropriate share for operation, maintenance, and replacements, from the leasing of that capacity for irrigation purposes up to the time water first becomes available in Palisades Reservoir and, in the case of the capacity set aside for the north-side pumping division, all other revenues realized from or connected with the reserved capacity and which the Secretary determines to be available as a credit against the cost allocable to that division.

SEC. 4. (a) The continuation of construction of Palisades Dam beyond December 31, 1950, or such later controlling date fixed by the Secretary as herein provided, is hereby made contingent on there being a finding by the Secretary by the controlling date that contracts have been entered with various water users' organizations of the Upper Snake River Valley in Idaho that, in his opinion, will provide for an average annual savings of one hundred thirty-five thousand acre-feet of winter water. If in the Secretary's judgment the failure of the requisite organizations so to contract by the controlling date at any time, is for reasons beyond the control of those organizations, he may set a new controlling date but not beyond December 31, 1951.

(b) Repayment contracts made in connection with the use of capacity in either American Falls or Palisades Reservoir may include, among other things, such provisions as the Secretary determines to be proper to give effect to recommendations referred to in section 1 of this Act, and particularly those concerning the continued effectiveness of the arrangements as to the minimum average annual water savings.

SEC. 5. This Act is declared to be a part of the Federal reclamation laws as these are defined in the Reclamation Project Act of 1939 (53 Stat. 1187).

Mr. MURDOCK. There is a companion Senate bill, introduced by Senator Miller, and we are happy to conserve the time of the House and Senate by having this joint session or joint hearing.

I think it would be quite well and quite proper to open our hearings with a brief statement from the author of the bill, Congressman Sanborn, to be followed by Senator Miller, author of the companion bill in the Senate.

STATEMENT OF HON. JOHN SANBORN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Mr. SANBORN. Mr. Chairman, I will take the witness chair.

Mr. MURDOCK. Yes, Mr. Sanborn. We can see you better down there and also hear you better.

Mr. SANBORN. Mr. Chairman, I am happy that the Senate committee agreed to meet in joint session with us to consider these companion bills, and I am also happy to state that we have a large delegation of representative people from the territory involved, which is in my district in Idaho, and I am sure that they will present some very interesting information to the committee.

Mr. Chairman, I have introduced H. R. 5600, and identical companion bills have been introduced in the Senate, for the following purposes:

1. The reauthorization of the Palisades Dam and Reservoir project, Idaho.

(a) This project will furnish reservoir storage space of 1,400,000 acre-feet, which will be used to store water to provide supplementary irrigation for about 650,000 acres of land in the upper Snake River Valley.

(b) Power installation of 112,500 kilowatts to supply firm power to the city of Idaho Falls and irrigation pumping power for the Michaud area, the north-side pumping division of the Minidoka project, and other areas.

(c) Control of major floods and preventing damages to several thousands of acres of fine irrigated land in the upper Snake River Valley.

(d) Fish and wildlife benefits through Palisades storage and the restoration of Gray's Lake to its natural state and control of its level to create the optimum of its wildlife environment.

(e) Substantial recreational benefits through the coordination and operation of the Palisades and Jackson Lake Reservoirs.

2. Authorization of the north-side pumping division of the Minidoka project to supply irrigation water to 77,650 acres of land not now irrigated, lying north and west of Rupert, Idaho.

3. Power installation at American Falls Dam for the purpose of furnishing electric power for irrigation pumping and other purposes.

4. The sale of heretofore reserved storage capacity in the American Falls Reservoir as follows:

(a) Not to exceed 315,000 acre-feet of that capacity to those who have heretofore held lease arrangements for American Falls Reservoir space.

(b) To set aside 47,593 acre-feet of American Falls space for lands comprising unit A of the north-side pumping division of the Minidoka project.

(c) Setting aside 71,000 acre-feet of American Falls space for use under contract for lands in the Michaud areas which may hereafter be found feasible of development under irrigation.

This legislation is vital to the continued development of our irrigation and reclamation projects in Idaho. The active capacity will be used jointly for irrigation and flood control under a plan of operation worked out by the Bureau with the Corps of Engineers.

This project is a multiple-purpose development involving irrigation, power, flood control, recreation, and fish and wildlife. The dam will be located on the main stem of the Snake River at Calamity Point in eastern Idaho about 8 miles west of the Idaho-Wyoming boundary, and about 50 miles east of Idaho Falls. In addition to

providing supplementary irrigation water, already mentioned, it will provide flood protection for several thousand acres of irrigated land on the Snake River plain above Idaho Falls.

The project will also provide additional hydroelectric power to serve irrigation pumping loads, municipalities, rural cooperatives, and others. However, the production of power at Palisades Dam will be entirely incidental to the operation of the reservoir for irrigation and flood control.

It is encouraging to see some hope for actual construction of the Palisades project. This project was authorized in December 1941, and little more than preconstruction survey work has been done to date. Roughly, this project will provide new farm homes and opportunity for livelihood for 1,000 or more families. The new wealth created in the form of new production from the farms in the division would create additional livelihood opportunities for an equal or greater number of families in the trade and industrial enterprises which would service this new farm production.

It will place a block of public domain, presently unproductive, into active economic production.

Details regarding the cost of the development proposed under H. R. 8500 are to be given the committee by officials of the Bureau of Reclamation, who are present and will appear immediately following the conclusion of my statement.

The legislation under consideration deals with the control and use of water in the entire watershed of the Snake River above Milner Dam. The annual inflow of water into the Snake River, including Henry's Fork and other tributaries, averages about 6,500,000 acre-feet. Waters of the upper Snake River are now used for furnishing a full or partial supply of water for approximately 1,200,000 acres of high-type agricultural land. The proposed legislation will authorize the construction of units for the storage and use of nearly all of the water not now utilized in the upper Snake River Valley. The land to be irrigated is limited only by available water supply.

Among the outstanding cash crops produced in this irrigated area are potatoes, sugar beets, dry beans, and seeds. This valley is famous for its production of the high-quality Idaho russet potato. A very high percentage of the 100 carloads per day shipment of Idaho russet potatoes comes from this area. About one-third of the irrigated area is devoted to the growing of hay and alfalfa, in rotation, providing winter feeds for the livestock industry of the area. The upper Snake River Basin is a garden spot prolific in peas, cauliflower, and other vegetables and fruit. The valley as a whole is one of the largest agricultural communities in the entire West.

Idaho Falls is the metropolis of northeastern Idaho. The city has harnessed the Snake River and installed its own municipal power plant to supply its light and water. Idaho Falls has a famous street known as Spud Alley, from which 10,000 carloads of choice Idaho potatoes have been shipped within a single year.

A few miles west of Idaho Falls, the Atomic Energy Commission is starting the construction of its new plant for the purpose of applying atomic energy to commercial purposes.

As we move down the highly agriculturally developed valley of the Snake, we pass the Blackfoot and Fort Hall Indian Reservation and

eventually arrive in Pocatello, the second-largest city of Idaho. Pocatello is a railroad center where lines of steel radiate to the east, west, north, and south, connecting Idaho with the markets of the world. At Pocatello railroad yards, car shops, and roundhouse, workers earn upwards of a million dollars each month.

A permanent addition to Pocatello in the war period was the naval ordnance plant, where guns up to 16 inches in diameter and 90 feet in length are rolled. Pocatello also boasts of having many factories; and in particular a fine cheese factory, oil-refining plant, and phosphorus and fertilizer plants.

East of Pocatello, underlying grazing land, are 5,000,000,000 tons of phosphate, enough fertilizer to restore and maintain the fertility of worn-out farms of the entire Nation.

To the southwest of Pocatello is located the American Falls Reservoir, with a shore line of 125 miles and a capacity for storage of 1,700,000 acre-feet of water. This reservoir is a major unit for the purpose of supplying irrigation water to 400,000 acres of farm land and the towns of Rupert, Burley, Shoshone, Jerome, Twin Falls, Buhl, and Gooding.

In this entire area, more than 95 percent of all farms now have electricity.

While most of the cultivated land of Idaho is devoted to high-quality potatoes, sugar beets, peas, beans, onions, wheat, and fruit, the production of vegetable seeds is also of great importance to the Nation. Idaho now grows more than one-half of all the vegetable seeds produced in the United States. Fifty percent of all onion seed used in the United States is grown in Idaho and more than 60 percent of all hybrid sweet-corn seed.

Idaho's reclamation projects have been developed over a long period of time on a unit-by-unit basis. Early projects were largely for the purpose of growing alfalfa and grain to supply winter feed for Idaho's sheep and cattle industries. In later years, more root crops have been grown, requiring a late supply of irrigation water, which, together with changing seasons, has resulted in water shortages being experienced on thousands of acres of lands under irrigation projects.

The Bureau of Reclamation has been conducting studies over a period of more than 20 years for the purpose of developing a plan to place under beneficial use all available water in the Snake River Valley above Milner, Idaho; and has recently submitted its reports on the Palisades Dam and Reservoir project and the north-side pumping unit of the Minidoka project, and its representatives and engineers are now present and prepared to give detailed testimony regarding the projects and other features proposed under the legislation now before this committee.

The benefits of the projects authorized in this bill will go far beyond the borders of the State of Idaho. With an increasing population and depletion of soil resources, the agricultural productivity of these projects will benefit the economy of the entire Nation. This development will not be immediate. It will require several years of work and planning before all projects authorized can be brought into full operation. The end result will strengthen our economy.

named cooperative has built 3,000,000 bushel storage in Ogden, Utah, for the benefit of farmers in southern Idaho and Utah and also to handle Commodity Credit wheat for the United States of America.

With your permission, I will file the rest of my statement.

I would like to say one word, though. We are totally in cooperation with the Federal Government on this and with the committee of nine.

With that, I thank you all, and I will file my statement.

(The matter above referred to is as follows:)

MICHAUD FLATS PROJECT

I. LOCATION AND EXTENT OF THE PROJECT

The Michaud Flats project lies adjacent to the eastern shore line of the American Falls Reservoir and extends several miles south of the American Falls Dam. The area is bracketed by the cities of American Falls, Idaho, and Pocatello, Idaho.

The project area embraces a gross acreage of 52,000 acres on the Snake River plain.

Weather Bureau stations in Idaho report that the area has 117 continuous frost-free days annually. Average date of the last killing frost in the spring is May 22. Average date of the first killing frost in the fall is September 16.

II. HISTORY

The building of the American Falls Dam inundated 61,000 acres of land, the majority of which was taxable land in Power County, Idaho.

As a partial recompense for the flooding of these lands, the Michaud Flats project has been indirectly promised by the Federal Government for many years. The landowners now feel that this will be the last opportunity to obtain irrigation water for the Michaud Flats.

III. RELATION TO TOTAL SNAKE RIVER WATER SUPPLY

Geological surveys have shown that 50 to 60 percent of the water to be diverted to the Michaud Flats will go back into the Snake River by underground seepage and return flow after it has been applied to the land. A large portion of it will be recovered in the American Falls Reservoir, and all of the return flow will be used again by projects located farther down the river.

Since sufficient water will be available for diversion to the Michaud Flats, and since so much of the water will be recoverable for additional use, Snake River water users with an eye for planning and future development look with favor on the Michaud Flats project.

IV. SNAKE RIVER WATER USERS FAVOR THE MICHAUD FLATS PROJECT

The committee of nine favors the diversion of Snake River water to the Michaud Flats project. For many years this elected committee has represented all of the canal companies and irrigation districts along the Snake River in their negotiations with the United States Bureau of Reclamation.

The Upper Snake River Water Users' Protective Union, representing 50 canal companies above American Falls, also is in favor of the development of the Michaud Flats project.

V. FALLS IRRIGATION DISTRICT RECENTLY ORGANIZED

With a desire to have nothing stand in the way of the development of the Michaud Flats project, the landowners have taken the initiative in the past several months to organize the Falls irrigation district. This irrigation district now exists as a bona fide, legally constituted district ready and willing to do business with the United States Government in the interest of the people.

On July 26, 1949, the landowners residing on the land voted unanimously in favor of the organization of the Falls irrigation district.

The landowners within the area enclosed by the Michaud Flats project have affixed their signatures to a statement expressing their willingness to abide by reclamation laws governing the development of such projects, and including those portions of the law relating to acreage limitations for the present landowners.

VI. JUSTIFICATION

The population of southeastern Idaho is growing rapidly. New industries have come to the region. Others are in various stages of development. Cities adjacent to the Michaud Flats project are growing in population. Latest estimates place the population of American Falls at 2,200; Idaho Falls, 20,000; Pocatello and vicinity, 32,000; and Blackfoot, 6,000.

The project will be of considerable value to the State and Nation. A high percentage of the landowners on Michaud Flats are war veterans. Other veterans will find future homes and farms on the project.

Farming in the area will be changed from a one-crop system (wheat) to a diversified cropping system creating a more stable economy for the area. The creation of the project will furnish work for many in the construction of canals, homes, farm buildings, and in the processing of farm products.

The diversion of water to the Michaud Flats will yield dairy products, livestock, potatoes, grains, hay, sugar beets, and seed crops.

It will not be necessary to build railroads and highways to the Michaud Flats project. The area is at present bisected by a transcontinental railroad and highway leading to terminal markets to the eastward and to the west coast.

School busses now serve the school children of Michaud Flats. School facilities will be kept adequate by new construction already planned.

Available electric power is adequate to serve the entire area. More than 90 percent of the farms in Power County are connected with electricity. An Idaho Power Co. highline parallels the highway and railroad over Michaud Flats.

The new power line which the Bureau contemplates running from the Palisades Dam to American Falls gives promise of furnishing low-cost power to the new settlers on the Michaud Flats project.

Mr. MURDOCK. Thank you, Mr. Hess.

Our next witness is John T. Poole, of Menan, Idaho.

STATEMENT OF JOHN T. POOLE, MENAN, IDAHO

Mr. POOLE. Mr. Chairman, my name is John T. Poole. I am appearing before this committee on behalf of the Heise-Roberts flood-control district, Idaho.

I was born at Menan, Idaho, 60 years ago and have lived in that vicinity ever since—the past 27 years on a farm along the banks of Snake River, about 3 miles west of Menan. This section of the Snake River Valley is known locally as the Menan-Deer Parks area. The soil here is exceptionally fertile, having been created as a sedimentary deposit by overflow of the Snake River during flood periods of past ages.

Ever since the first settlers came to Snake River Valley considerable losses have been suffered due to floodwater overflow and erosion, particularly in the section of the river channel between Heise and Roberts, within which is included the Menan-Deer Parks area where I live.

For a period of years, some 25 years ago, the State of Idaho, acting through its legislature, appropriated funds for flood protection along this section of the river which were expended by the State engineer, but the problem proved to be beyond the ability of the State to handle by itself. Accordingly, a flood-control district law was passed by the Idaho Legislature, and the first flood-control district to be created under the law was the Heise-Roberts flood-control district, organized in 1946, for the purpose of cooperating with the Army engineers on all matters relating to flood protection along that section of Snake River.

I appear here as an authorized representative of the board of directors on this flood-control district.

Acting in cooperation with the Heise-Roberts flood-control district, the Army engineers have already built a number of dikes, revetments,

etc., along the river banks at a cost of over a third of a million dollars. This work, which is still continuing as funds become available, is being planned to provide a channel that will safely carry a flow of 20,000 second-feet. The flow of the river in past years, however, has been as large as 70,000 second-feet in the record high water year of 1894 and in a number of years, has been in excess of 35,000 second-feet.

It is impossible to create a river channel in this vicinity with capacity to handle flows of this magnitude, except at prohibitive cost. The only feasible solution of the problem is to create flood-control space in an upstream reservoir such as that proposed at Palisades Dam, to store floodwaters in excess of 20,000 second-feet.

In 1948 the river reached a maximum discharge of about 31,000 second-feet which resulted in a loss of $500,000 that year to the crops, lands, and properties, and livestock within the boundaries of the Heise-Roberts flood-control district. Higher river flows may occur any year, causing greater losses as well as doing much damage to the existing dike system already constructed and being expanded by the Army engineers.

On this account, we feel that adequate protection against flood damages on Snake River can only be assured by the building of Palisades Reservoir at as early a date as possible and its operation under the plan agreed upon by the Army engineers and the Bureau of Reclamation, whereby in years of heavy snowfall the entire capacity of the reservoir may be made available for flood control purposes when needed.

I thank you.

Mr. MURDOCK. We thank you for your statement, Mr. Poole.

Our next witness will be Hon. Thomas L. Sutton, mayor of Idaho Falls, Idaho.

Mayor Sutton, we are glad to welcome you this morning.

STATEMENT OF HON. THOMAS L. SUTTON, MAYOR, IDAHO FALLS, IDAHO

Mr. SUTTON. Mr. Chairman and members of the committee, my name is Thomas L. Sutton. I am mayor of the city of Idaho Falls, Idaho—a community of 20,000 population. Prior to becoming mayor, I was for 16 years a member of the city council.

Idaho Falls first engaged in the municipal power business over 40 years ago by the construction of a hydroelectric plant. It afterward built additional plants, expanding the generating capacity as the city grew in size. At the present time, it has three hydroelectric plants situated on Snake River within a few miles of town, with an installed capacity of 9,360 kilowatts. It also owns three Diesel units having a capacity of 340 kilowatts, making a total installed capacity of 9,700 kilowatts.

Last year we generated 55,507,220 kilowatt-hours and purchased 2,230,913 kilowatt-hours of peak load power from the Utah Power & Light Co. at the rate of 1.51 cents per kilowatt-hour. During the same period, we sold that company 4,715,010 kilowatt-hours of dump power at 2 mills per kilowatt-hour. We distributed to local consumers during the same year 44,812,907 kilowatt-hours.

Our peak load in 1948 was 10,700 kilowatts—an increase of 11.45 percent over the 1947 peak. We estimate that the peak load this year

will be 11,900 kilowatts and, for 1950, 13,300 kilowatts. It is possible for the city to build additional power dams on Snake River, but such dams would have to be at greater distance from town and are costly per kilowatt hour of installed capacity when build exclusively for power production.

On this account, as well as war conditions, we have deferred building any new hydroelectric plants during the past decade, in expectation that the Government would build Palisades Dam and power plant and that our power needs could be supplied from that source.

Our town has been growing rapidly, however, and during the past 2 years we have spent over $50,000 for new substations to connect with the Utah Power & Light system so we could purchase power from that company to supply our peak loads. We will have to continue this practice until we can get Palisades power or also buy more Diesel engines.

We have signed a contract with the Government to take the firm power output of Palisades Dam in the amount of 20,000 kilowatts, which should be sufficient to supply our need for the next 10 years at least.

The city of Idaho Falls has made an outstanding success of municipal power and has an income from power sales of $600,000 annually. The city has a tax rate of 24 mills on the assessed valuation, which is about two-thirds of the tax rate in other southern Idaho cities.

We feel that the city of Idaho Falls should acquire and preserve an independent source of power supply adequate to meet its needs during the foreseeable future. We are glad to buy and sell power back and forth with the Utah Power & Light Co. and feel that this is a mutually advantageous arrangement. However, we feel we should not thereby place ourselves in a condition of dependence upon being able to purchase power from a privately owned utility.

In our judgment, the early construction of the Palisades power plant is the only permanent solution to the problem of an adequate power supply for Idaho Falls.

I thank you.

Mr. MILLER. What is your experience in the production of electric energy from the Diesel plants you have and from water power; how do they compare?

Mr. SUTTON. You mean the cost?

Mr. MILLER. Yes; the cost.

Mr. SUTTON. It is three times more from Diesel plants than it is from hydroelectric plants.

Mr. MILLER. What do you use for fuel?

Mr. SUTTON. Oil, at a cost of 13.6 cents per gallon.

Mr. MILLER. You say it is three times more expensive?

Mr. SUTTON. Yes, sir.

Mr. MILLER. To produce by Diesel fuel oil?

Mr. SUTTON. It is by our experience with three Diesel plants.

Mr. MILLER. What is your experience with relationship to the Utah Power Co.; do you operate with them?

Mr. SUTTON. With the Utah Power & Light Co.?

Mr. MILLER. Yes.

Mr. SUTTON. We have a very good agreement at the present time.

Mr. MILLER. How do they generate their energy?

Mr. WHITE. It would not pay the city of Idaho Falls to put in a steam or oil generating plant to firm up dump power and get the firm rate for it?

Mr. SUTTON. No, sir.

Mr. WHITE. It is cheaper for you to pay 1.51 cents for firm power and sell dump power for 2 mills than it is to supply the customer with steady, year-around power by firming up the dump power with an auxiliary plant?

Mr. SUTTON. Yes, sir.

Mr. WHITE. And you consider that good business?

Mr. SUTTON. Well, it has worked out very satisfactorily for us.

Mr. WHITE. How about the power company?

Mr. SUTTON. It is all right for them. They are making some money, and we are satisfied.

Mr. WHITE. They are satisfied, and everybody is happy?

Mr. SUTTON. Yes, sir.

Mr. WHITE. You are buying this power for 1½ cents. For what do you sell it to the industries around town?

Mr. SUTTON. There are seven different rates at which this power is sold.

Mr. WHITE. Let us have the industrial rate.

Mr. SUTTON. Well, I do not know the exact rate.

Mr. WHITE. You do not know what that is?

Mr. SUTTON. No, sir.

Mr. WHITE. You do not know what you are charging, so if I want to go in there and start a factory and put a lot of people to work you could quote your power rate?

Mr. SUTTON. Mr. White, I can get that for you.

Mr. WHITE. I was only trying to find out what your industrial rate is.

Mr. SUTTON. I did not bring any figures as to the different rates we are charging for power. We have a rate per kilowatt-hour for house power; we have certain rates per kilowatt-hour for light; and we have certaiin rates for power. If you wish, I will wire and have them back for you in an hour, but I have not got them with me.

Mr. WHITE. Well. You know what you are paying the Government, what the contract entered into with the Government is if the Palisades Dam is built.

Mr. SUTTON. Yes, sir.

Mr. WHITE. And you know what you pay the Utah Light & Power.

Mr. SUTTON. Yes, sir.

Mr. WHITE. But you do not know offhand what the commercial rate for power for industrial use is, although you are doing business in a substantial way.

Mr. SUTTON. It is the same rate to all.

Mr. WHITE. You said at first you paid 2 cents to the Utah Power & Light for power, and then you said you got a reduction to 1½ cents. Did you cut the rate to industrial users?

Mr. SUTTON. Did we cut the rate?

Mr. WHITE. Yes; after you got a reduction of half a cent.

Mr. SUTTON. I will try to answer that question in this respect: We stay on the same rates that the Utility Commission of the State of Idaho has approved for the Utah Power & Light or for the Idaho power companies. We stay at the rate the utility commission has set.

Mr. WHITE. In other words, the Utah Power & Light maintains a rate structure over the State of Idaho for commercial and domestic use? You stayed in line with their rate.

Mr. SUTTON. The profits we take from our hydroelectric plants are used——

Mr. WHITE. I know the story about the benefits that flow from municipally owned power plants, and what you can do for old-age pensioners by remitting their power charges and what you do for widows with families to support and others, and I know Idaho Falls is one of the best examples of a beautiful city with a municipally owned plant in the United States.

Mr. SUTTON. Thank you.

Mr. WHITE. But I would like to know what the industrial rate of the Utah Power & Light Co. is now.

Mr. SUTTON. I do not know what the industrial rate of the Utah Power & Light Co. is now. I can find out, if you wish to have it.

Mr. WHITE. That is all, Mr. Chairman.

Mr. MURDOCK. We thank you, Mayor, for your statement.

Mr. SUTTON. Thank you kindly.

Mr. MURDOCK. Our next witness is Lynn Crandall, who is watermaster on the Snake River at Idaho Falls.

STATEMENT OF LYNN CRANDALL, WATERMASTER, IDAHO FALLS, IDAHO

Mr. CRANDALL. Mr. Chairman and members of the committee, my name is Lynn Crandall. I live at Idaho Falls, Idaho. For the past 20 years I have been elected annually by the water users as watermaster on Snake River in Idaho in charge tf the distribution of the waters of that stream and its principal tributaries to over 100 canals that supply irrigation water to more than 1,000,000 acres of irrigated lands.

Senator TAYLOR. If you will pardon a question there, Mr. Crandall, in these 20 years that you have served as watermaster, how many votes have you had cast against you for that position?

Mr. CRANDALL. I have never had any yet.

Mr. MURDOCK. How do you do it? [Laughter.]

Mr. POULSON. I used to be a farmer, and if he gets the water to them, I know how he does it.

Mr. CRANDALL. The dry year of 1931, with crop losses of $3,000,000 due to water shortage, demonstrated that the existing reservoirs on Snake River were of insufficient capacity to provide an adequate water supply in years of drought. Largely due to Senator Borah's influence, Mr. Elwood Mead, then Commissioner of Reclamation, was induced in 1933 to begin the exploration of new reservoir sites on the stream. While these investigations were in progress, the extremely dry year of 1934 occurred, causing crop losses of over $7,000,000, followed by losses in 1935 of $1,000,000 due to water shortages. Some losses also occurred in 1940. These losses are in terms of prices for crops prevailing at the time and would be more than doubled if expressed in terms of present-day crop prices.

There are many diverse and conflicting water rights and interests on Snake River in Idaho, and the Bureau of Reclamation has spent 16 years of study and a million dollars of Federal funds in its efforts

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to find some satisfactory location and plan for the construction and operation of a new reservoir that would, insofar as possible, harmonize and be acceptable to the great majority of the many existing viewpoints of what ought to be done on Snake River. The result of these years of study, investigations, an innumerable conferences with the water users is embodied in the report by the Bureau of Reclamation on the Palisades Dam and the Minidoka north-side pumping project that are before you for consideration.

I do not know of a more feasible or meritorious or necessary project under consideration by the Bureau of Reclamation than this one proposed on Snake River. It will repay its cost many times to the Nation during its useful life, which will last for centuries, due to the relatively small amount of silt carried by Snake River. It combines insurance water for the dry years for lands now under irrigation, flood protection, needed power generation, new lands for war veterans, recreation, and wildlife benefits of substantial magnitude.

Many of the canals in the Snake River Valley above American Falls Reservoir do not own enough storage water to carry them through the irrigation season after their natural flow rights are cut off, due to decreased stream flow. They have been obliged to rent 200,000 acre-feet annually of additional storage water from the Government and other sources even in years of ordinary run-off, and adequate amounts of storage are not available for rent in years of subnormal run-off. Such rentals involve temporary year-to-year agreements with various parties owning storage rights in both American Falls and Jackson Lake Reservoirs, whereby the water may be temporarily exchanged between the reservoirs. These agreements have been difficult to secure at times and may be terminated any time when some company might feel that its rights were being adversely affected. There can be no permanent assurance of an adequate water supply for these upper valley canals serving over one-third of a million acres until Palisades Reservoir is built and their storage rights are established in upstream reservoirs above their lands.

A number of the canals below American Falls Reservoir also have suffered severe losses in dry years and in years of subnormal water supply they, too, have been obliged to rely on the stored water that has been rented them by the Government from its American Falls space.

The need for flood protection is also a pressing matter on Snake River, particularly in the section from Heise to Roberts, Idaho, where the river flows in an unstable channel on the so-called Heise "cone," built up by gravel deposits during past geologic ages. In addition to existing flood damages by erosion and overflow of the adjacent lands, there is an ever-present danger that in some high-floodwater year the river will leave its present course and cut a new channel through improved farm lands, resulting in damages of large magnitude to such lands and for relocation of canals, diversion works, and so forth.

The Snake River water users are ready to sign repayment contracts and have already subscribed to all the available space in the reservoir. It is their earnest hope that the project will be speedily authorized by Congress.

I thank you.

Mr. MURDOCK. Thank you, Mr. Crandall.

Some weeks ago, when I made mention here in the committee that we might have to call on the Angel Gabriel for a little contribution, our friend from New Mexico said "If we are going to bring in the Angel Gabriel, I want to ask some questions." I fancy, aside from the subject under discussion, we will want to ask you something about your technique in getting votes and voiding opposition.

We thank you for your statement.

Mr. POULSON. I think this is a very condensed statement. It tells the story in a nutshell, and I compliment you.

Mr. WHITE. You are familiar with the Heise-Roberts flood-control district?

Mr. CRANDALL. Yes, sir.

Mr. WHITE. Those people are not asking for any water at all; they just want protection. Is that right?

Mr. CRANDALL. From floods?

Mr. WHITE. Yes.

Mr. CRANDALL. Some people in the district have water rights in canals that divert from the river. Those lands on the river have to be irrigated, and lands in the district also have irrigation water rights in various canal systems, the most of which are applying for space in the reservoir.

Mr. WHITE. I understood the alluvial soil along the river banks was subject to overflow and you say the waters are diverted from the river. They are not diverting the storage water for their use, are they?

Mr. CRANDALL. Some are, and some have early water rights, and some have later rights and have applied for stored water, also.

Mr. WHITE. Where the river goes dry, as you explained, at Blackfoot, would the water users in this district have diversion rights as well as all the rest of the users? Is that a fact?

Mr. CRANDALL. It depends on the date of priority. Those having rights of very early priority still get water. Their point of diversion is far above Blackfoot.

Mr. WHITE. My question is directed to protecting those people in a flood. Nothing is mentioned in the statement of the gentleman representing this flood-control district about acquiring new water; they simply want protection by revetment and channelizing the river and storage to hold back floodwater.

Mr. CRANDALL. That is correct.

Mr. WHITE. Are they asking for irrigation water, too?

Mr. CRANDALL. No; except as individuals, as stockholders of a canal company, they might be applying through a canal company which may be a subscriber for space in the reservoir. But as a flood-control district, they are not asking for any space.

Mr. WHITE. Mr. Chairman, I assume this witness will be available later, and I might like to ask some further questions. I do want to go into the situation of the north side unit in more detail, but I will pass on right now.

Mr. REGAN. May I ask one question?

You say you do not know of a more feasible or meritorious or necessary project under consideration by the Bureau of Reclamation than the Minidoka north side pumping project and the Palisades Dam. I would like to know what they are going to cost.

you, one addressed to the chairman of the Public Lands Committee of the House, and the other addressed to Senator O'Mahoney, chairman of the Interior and Insular Affairs, and I would like to submit those at this time.

Mr. MURDOCK. We would be very glad to have the reports and they will be placed in the record at this point.

(The letters referred to are as follows:)

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, August 10, 1949.

MY DEAR MR. PETERSON: You have asked for an expression of our views on H. R. 5506, a bill to authorize the Palisades Dam and Reservoir project, to authorize the north side pumping division and related works, to provide for the disposition of reserved space in American Falls Reservoir, and for other purposes.

We recommend that the bill in question be enacted.

Enactment of this legislation would constitute a long step forward in the development of the water resources of the upper Snake River Valley in Idaho and in the settlement of an extremely complicated water-right problem in that area. The legislation and actions taken in its fulfillment will long be looked on as an example of the ability of contending groups of water users, acting in cooperation with the Federal Government, to resolve difficult water-use problems.

The bill deals with several major, but closely related, physical undertakings, these being Palisades Dam and Reservoir, American Falls Dam, and the proposed north side pumping division of the Minidoka project. These physical undertakings are all related in the solution of the water problems of the upper Snake River Valley. The problems arise because of the need for supplemental storage in the valley. This need will be met with the building of Palisades Dam and Reservoir, though this is but part of the solution. The whole solution requires the providing of authority with respect to the use of that reservoir, and related existing storage facilities, and the making of appropriate arrangements under that authority.

A brief résumé of the problems involved and the negotiations with respect to them will show this interrelationship and the desirability, even necessity, of treating the major physical undertakings together in the proposed legislation.

Palisades Dam was initially authorized in 1941 (H. Doc. No. 457, 77th Cong. 1st sess.) on the basis of a finding of feasibility made by the Secretary under the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187). The construction of the project was regarded, however, at least administratively, as dependent on there being assurance of a minimum water supply through the curtailment of certain wasteful winter diversions in the upper Snake River Valley. A comprehensive study of water supply and use in that area was completed and a report on the findings was released in December 1946. Negotiations with the water users as to winter water savings and future repayment of the portion of the cost of Palisades Dam to be repaid by water users were began immediately. The water users raised at the outset, however, the question as to the final disposition of the 433,593 acre-feet of reserved space in American Falls Reservoir then under lease to them.

The United States proposed that this reserved space continue to be set aside for the development of new lands in accordance with plans in contemplation when American Falls Reservoir was built in 1927. The present lessees of that space, however, argued that the entire space should be sold to them. The United States recognized the position of those water users as having some merit, but it was felt that there were sounder reasons for recommending the development of some 67,000 acres of new land—30,000 acres in the Michaud Flats area and 37,000 acres comprising the better public lands long under withdrawal for development as part of the north side pumping division of the Minidoka project. This proposition was a compromise, for it involved the development of but a portion of the lands under withdrawal for the north side pumping division. While the negotiations with the water users were gong on, however, the possibility of developing ground water as a source of supply for a substantial portion of the north side pumping division was explored and the results held promise. This made possible a further compromise as to the use of American Falls space. The compromise tentatively worked out provides for the disposal of 315,000 acre-feet of the total reserved space to the existing water users who have heretofore

leased that space. The balance is to be allocated: 47,593 acre-feet to unit A of the north side pumping division, and 71,000 acre-feet to the lands in the Michaud area which lies between Pocatello and American Falls.

The proposal to develop the north-side pumping division in a large part with ground water focused attention anew on the problem of the most suitable source of irrigation pumping power. The conclusion reached was that completion of the power installation at American Falls Dam was the answer because it is especially adaptable to seasonal production and would afford a good way of realizing on the investment initially made in power facilities when the dam was built. It also promises to afford the best way of providing for the continuation of a needed winter water-savings program through curtailment of winter power generation at Minidoka Dam and Shoshone Falls. Accordingly the bill covers both authorization of the north-side pumping division and authorization of the power installation at American Falls as a primary source of pumping power.

The major purpose of each section of the bill and important aspects of the works covered thereby are discussed below.

Section 1 of the bill relates to Palisades Dam, with respect to which supplemental authority is needed. The dam, as now proposed to be built, is essentially the same as that initially authorized, although it is proposed now to increase the capacity of the outlet works to permit greater flexibility in flood-control operations and to increase the maximum power installation to approximately 112,500 kilowatts. The total cost of the proposed project estimated as of January 1, 1949, is $76,601,000. The proposed allocations of these costs are covered fully in the supplemental report to which reference is made in the bill. The project, on the basis of such allocations and prospective returns, is regarded as financially feasible.

Two or three aspects of the proposed operating plan for the reservoir are unique and have a direct bearing on the allocation of costs and, consequently, on pay-out. The flood-control plan discussed in detail in appendix A of the allocation report has been worked out between the Bureau of Reclamation and the Corps of Engineers. That plan involves the joint use, on the basis of run-off forecasts, of all active space in the reservoir for irrigation and flood-control purposes. The run-off forecasts would be improved by continuation and extension of the existing hydrometeorological network. Such a plan justifies a substantially larger allocation to flood control than would be possible were but a portion of the reservoir space to be made available for flood-control purposes. The study of that plan, based on past years of record, indicates that the plan can operate without any substantial detriment to the total amount of irrigation storage water to be released.

No account is taken of the increased allocation to flood control that might be justified when and if a more extensive reservoir system for the control of floods on the main stem of the Columbia River, such as proposed in the report of June 28, 1949, of the Chief of Engineers, is authorized, but it is expected that at such time there could be reevaluation if authority in law for such a review is then extent.

The proposed allocation to recreation is regarded as justified because with Palisades Reservoir in operation it will become possible and desirable, from a water savings point of view, to maintain Jackson Lake at full level throughout the tourist season. Only in extremely dry years would there be any substantial withdrawal from Jackson Lake during that season. In terms of tourist attraction in an area so widely known throughout the United States this change of operating plan is regarded as capable of a high monetary valuation, which would adequately justify the proposed allocation of project costs to recreation. The basis of the valuation and allocation of project costs to recreation is explained in appendix C of the supplemental report.

All proposals of consequence with respect to Palisades Dam and Reservoir will be made effective through the adoption, by section 1 of the bill, of the specific recommendations incorporated by reference to the supplemental report approved by the Secretary on July 1, 1949.

Authorization of the north side pumping division of the Minidoka project will be affected by the provisions of section 2 of the bill. A full description of the project works and a discussion of the engineering and financial aspects of this undertaking appear in the Commissioner's report as approved and adopted by the Secretary on July 1, 1949.

The primary source of pumping power suggested in that report is the power installation at American Falls Dam. At the pumping power rate assumed in the report, the proposed works are regarded as financially feasible, although, be-

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through the curtailment of certain wasteful winter diversions in the upper Snake River Valley. A comprehensive study of water supply and use in that area was completed and a report on the findings was released in December 1946. Negotiations with the water users as to winter water savings and future repayment of the portion of the cost of Palisades Dam to be repaid by water users were begun immediately. The water users raised at the outset, however, the question as to the final disposition of the 433,593 acre-feet of reserved space in American Falls Reservoir then under lease to them.

The United States proposed that this reserved space continue to be set aside for the development of new lands in accordance with plans in contemplation when American Falls Reservoir was built in 1927. The present lessees of that space, however, argued that the entire space should be sold to them. The United States recognized the position of those water users as having some merit, but it was felt that there were sounder reasons for recommending the development of some 67,000 acres of new land—30,000 acres in the Michaud Flats area and 37,000 acres comprising the better public lands long under withdrawal for development as part of the north side pumping division of the Minidoka project. This proposition was a compromise, for it involved the development of but a portion of the lands under withdrawal for the north side pumping division. While the negotiations with the water users were going on, however, the possibility of developing ground water as a source of supply for a substantial portion of the north side pumping division was explored and the results held promise. This made possible a further compromise as to the use of American Falls space. The compromise tentatively worked out provides for the disposal of 315,000 acre-feet of the total reserved space to the existing water users who have heretofore leased that space. The balance is to be allocated: 47,593 acre-feet to unit A of the north side pumping division, and 71,000 acre-feet to the lands in the Michaud area which lies between Pocatello and American Falls.

The proposal to develop the north side pumping division in a large part with ground water focused attention anew on the problem of the most suitable source of irrigation pumping power. The conclusion reached was that completion of the power installation at American Falls Dam was the answer because it is especially adaptable to seasonal production and would afford a good way of realizing on the investment initially made in power facilities when the dam was built. It also promises to afford the best way of providing for the continuation of a needed winter water savings program through curtailment of winter power generation at Minidoka Dam and Shoshone Falls. Accordingly, the bills cover both authorization of the north side pumping division and authorization of the power installation at American Falls as a primary source of pumping power.

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on the main stem of the Columbia River, such as proposed in the report of June 28, 1949, of the Chief of Engineers, is authorized, but it is expected that at such time there could be reevaluation if authority in law for such a review is then extant.

The proposed allocation of project costs to fish and wildlife is in keeping with the policy established by the Congress in the act of August 14, 1946 (60 Stat. 1081), but in this instance is dependent upon 55,000 acre-feet of Palisades space being made available to the Fort Hall Indian Reservation as replacement storage for that which it now receives from Gray's Lake and on the actual establishment of Gray's Lake as a wildlife-management area. The latter step will require, among other things, the acquisition of adequate rights-of-way.

The proposed allocation to recreation is regarded as justified because with Palisades Reservoir in operation it will become possible and desirable, from a water savings point of view, to maintain Jackson Lake at full level throughout the tourist season. Only in extremely dry years would there by any substantial withdrawal from Jackson Lake during that season. In terms of tourist attraction in an area so widely known throughout the United States, this change of operating plan is regarded as capable of a high monetary valuation, which would adequately justify the proposed allocation of project costs to recreation. The basis of the valuation and allocation of project costs to recreation is explained in appendix C of the supplemental report.

All proposals of consequence with respect to Palisades Dam and Reservoir will be made effective through the adoption by section 1 of the bill, of the specific recommendations incorporated by reference in the supplemental report approved by the Secretary on July 1, 1949.

Authorization of the north side pumping divisions of the Minidoka project will be effected by the provisions of section 2 of the bills. A full description of the project works and a discussion of the engineering and financial aspects of this undertaking appear in the Commissioner's report, as approved and adopted by the Secretary on July 1, 1949. The primary source of pumping power suggested in that report is the power installation at American Falls Dam. At the pumping power rate assumed in the report, the proposed works are regarded as financially feasible, although, because of the relatively high estimated annual cost of water users, it is proposed, through adoption of the specific recommendations incorporated by reference in the report, to permit use of a repayment plan somewhat different from that now provided by section 9 of the Reclamation Project Act of 1939.

Section 2 of the bills covers, in addition to the north side pumping division, the completion of the long deferred power installation at American Falls Dam and the treating of this and the Palisades power plant and the related transmission system as one unit for payout and rate-making purposes. Power penstocks were included in the dam when it was first built and it was then planned to complete the installation with a primary purpose being to provide irrigation pumping power. There is attached a financial study (Financial Study of Proposed Completion of American Falls Power Plant) dealing with the American Falls power plant as it could be operated in conjunction with the Palisades plant, having regard for the limited power water rights of the United States at American Falls Dam. This study shows the proposed installation to be feasible, using rates for pumping power in keeping with those in the north side pumping division report to which this study is complementary.

The construction and operation of the American Falls power installation will result in the termination of a contract of October 1, 1934, with the Idaho Power Co. That contract had as its main purpose the conservation of water for irrigation use, but it was made possible at the cost of committing to the Power Company all surplus power of the Black Canyon power plant of the Boise project. It is desirable to continue the water conservation features of that contract but to do so other than by continuing the commitment as to Black Canyon power. The American Falls power installation appears to be the best means for accomplishing this.

Through the adoption of the specific recommendations incorporated by reference in the Commissioner's supplemental report on Palisades and the north side pumping division, as approved and adopted by the Secretary, there will be authorized transmission facilities in the upper Snake River Valley for the connection of the Palisades power plant with other Federal power plants and pumping projects in that area that would include the interconnection of the Palisades plant and the American Falls installation. There also will be authorization for the building of a distribution system in the north side pumping division to serve the

various pumping facilities of that undertaking. It is not proposed, however, that the United States continue indefinitely to operate that distribution system; accordingly, provision is made for its ultimate disposition either by sale or through some lease arrangement to some local organization.

Section 3 of the bills will give authority for the ultimate disposition of reserved space in American Falls Reservoir in keeping with the tentative agreement reached with the water users of the upper Snake River Valley. The capacity set aside for the north side pumping division is in accord with the report on that division. Plans for the use of the space set aside for lands in the Michaud area have yet to be fully developed. The act of June 5, 1924 (43 Stat. 390, 417), provided for an interest payment of 6 percent per annum on deferred payments of American Falls construction costs. In keeping with existing reclamation policy, it is now proposed, however, to permit deferred payments without interest. It is proposed also, to permit a part of the returns heretofore realized by the United States from the lease of American Falls space to be applied in the reduction of the purchase price of the space.

Section 4 of the bills has two provisions of some consequence though they are merely ancillary to the main purposes of the bill. It is proposed, first, that the Congress make continuation of the construction of Palisades Dam beyond December 31, 1950, contingent on there being assurance satisfactory to the Secretary that the desired average annual water savings amounting to 185,000 acre-feet will be achieved. While tentative agreement has been reached with respect to all principles to govern contracts for winter water savings, it is regarded as of importance that these principles be made effective through contracts before construction of Palisades Dam proceeds very far. The imposition of such a time limit by the Congress is believed desirable for the accomplishment of this objective. The provision for extending the time limit in some circumstances is desirable.

This same section provides also that the contracts to be entered into with respect to American Falls and Palisades space may include such provisions as the Secretary finds to be proper to insure the continued effectiveness of the winter water savings program. A part of the winter water savings program involves providing special storage rights to water users participating in that program, but it is important that, through contract provisions, all who contract as to the use of American Falls and Palisades space be required to recognize these special storage rights. It is desirable to have legislative foundation for such a requirement, as will be provided in this section of the bill.

The State of Wyoming has an indirect interest in the proposed legislation, particularly with respect to Palisades Dam and Reservoir. There is a relationship between the storage of water in Palisades Reservoir and the priorities therefor and the use of additional water of the Snake River for lands in Wyoming. Negotiations are now going on with respect to a compact between Wyoming and Idaho and, if agreement is reached in those negotiations, the interests of Wyoming will be adequately protected. The Department, through the Federal representative, Mr. Newell, is actively engaged in seeking an equitable solution. It would be salutary, indeed, if agreement in the negotiations were to be reached before action is taken by the Congress on the proposed legislation, but it is our view that action on the legislation should be taken as early as possible without regard to the status of negotiations on the compact. There will be ample time for settlement of the issues involved in those negotiations while actual construction of Palisades Dam is in progress.

Your committee will wish, no doubt, to correct a typographical error on page 4, line 2, of the bill. The fraction there stated is "three hundred and sixty-eight four-hundred-and-thirty-fourths." It should read "three hundred and eighty-six four-hundred-and-thirty-fourths." Also, it is recommended that the expression "Secretary" be substituted for the expression "Bureau of Reclamation," in line 18, on page 2 of the bill.

Inasmuch as I understand that your committee wishes an immediate report on this bill, I am unable to advise you concerning its relation to the program of the President.

Sincerely yours,

J. A. KRUG,
Secretary of the Interior.

PALISADES DAM AND RESERVOIR PROJECT

THURSDAY, AUGUST 11, 1949

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON IRRIGATION AND RECLAMATION OF
THE COMMITTEE ON PUBLIC LANDS, AND A SUBCOMMITTEE
OF THE SENATE INTERIOR AND INSULAR AFFAIRS COMMITTEE,
Washington, D. C.

The subcommittees met at 2:30 p. m. in the committee room of the House Committee on Public Lands, Hon. John R. Murdock (chairman of the Subcommittee on Irrigation and Reclamation), presiding.

Mr. MURDOCK. The committee will please come to order.

We are continuing the hearing on H. R. 5506, a bill to authorize the Palisades Dam and Reservoir project, and for other purposes.

The first witness we have listed for this afternoon is the assistant regional director of the Bureau of Reclamation, Mr. F. M. Clinton, from Boise, Idaho.

Mr. Clinton, we would be glad to hear you now.

STATEMENT OF FRANK M. CLINTON, ASSISTANT REGIONAL DIRECTOR, BUREAU OF RECLAMATION, REGION I, BOISE, IDAHO

Mr. CLINTON. Mr. Chairman and members of the committee, my name is Frank M. Clinton. I am assistant regional director in the Bureau of Reclamation's regional office in Boise, Idaho.

Mr. MURDOCK. Off the record.

(Discussion off the record.)

Mr. CLINTON. The purpose of my testimony is to tell you in more detail about the physical features, the plans for operation, and the cost of the three projects under consideration in H. R. 5506.

I would like to discuss them in this order: The Palisades project first, the Minidoka north-side project second, and the American Falls power plant last.

Starting with the Palisades project, Mr. Newell has given you a general description of it. I would like to add to that a few further points.

The Palisades Dam will be a major structure, one of about the magnitude of Anderson Dam on the Boise River. It will be an earth-filled dam 260 feet high and it will take about 5 years to build it. The present estimated cost is $44,000,000.

It will form a reservoir with a total capacity of 1,400,000 acre-feet, of which 200,000 acre-feet will be dead storage. The reservoir will be about 17 miles long and will extend into Wyoming about 3 miles

on the Snake River and about a mile and a half up the Salt River into Star Valley in Wyoming.

Mr. WHITE. How much is the over-all length of the reservoir?

Mr. CLINTON. 17 miles, sir.

At the toe of the dam it is proposed to build a power plant with an ultimate capacity of 112,500 kilowatts. This plant will have a minimum head at dead storage level of 122 feet and at full reservoir the head will be 244 feet. In other words, it is a relatively high head plant.

I might add that the power plant capacity is considerably larger than was proposed at the time the project was first authorized. At that time the capacity was contemplated to be 30,000 kilowatts. Since that time the power-load situation in the Northwest and in southern Idaho has changed considerably. The load has increased a great deal in the last 10 years.

There will be a large amount of water passing through that reservoir every summer in the form of irrigation releases. In fact, all the storage requirements for the upper portion of the valley will be passed through Palisades Reservoir.

Mr. WHITE. You mean what will be Palisades. There is not one there now.

Mr. CLINTON. Yes. It will be passed through after it is built.

We felt that since there will be a high head power plant here with storage, that provision should be made to use the major part of those releases when that energy is needed. That was the main reason for increasing the size of the power plant.

Going on to the operation of the reservoir we have found through further study that it can be used to do more jobs and can accomplish the originally contemplated purposes better by coordinating its operation with other reservoirs and by using it to enhance both the fish and wildlife and recreation values of the area. The flood-control benefits or the degree of flood control also can be increased.

Starting with the irrigation operation, the Palisades Reservoir will be operated as a part of a system of three reservoirs. The two in existence now are the large American Falls Reservoir downstream from this site and the fairly large Jackson Lake Reservoir above it.

In order to conserve the maximum amount of water for dry years the best plan is to deliver all the lower valley storage requirements first from American Falls and to deliver the upper valley requirments first from Palisades, and only until there is an indication that one or both of those reservoirs—particularly Palisades—is going to be emptied will it be necessary to draw water from Jackson Lake.

By operating it in this manner we will always be sure of having Jackson Lake full on entering a dry period such as 1931 to 1935.

The hold-over storage that is accumulated both in Palisades and Jackson Lake may sit there for several years, but when a dry period does come along it will be drawn out gradually as it is needed, and the longer the dry period the heavier the draft will be on those reservoirs. However, it will be only in such periods that an appreciable draft will be made on Jackson Lake. I would like to come back to that point later in connection with the recreational features of the project.

Mr. SANBORN. Mr. Chairman, may I ask a question there?

Mr. MURDOCK. Yes, Mr. Sanborn.

Mr. SANBORN. That will permit a more natural level and a more constant level in Jackson Lake.

Mr. CLINTON. That is right, sir.

Mr. SANBORN. Which will be of benefit from a recreational standpoint.

Mr. CLINTON. That is right. I was going to discuss that further later on.

Mr. WHITE. Just how would this discommode it on a recreational point of view on Jackson Lake? If you drew the water down how would you discommode the recreational features?

Mr. CLINTON. It exposes a large area of mud flats and stumps all along the shore line of Jackson Lake. Anybody who has been through Jackson Hole in the fall of the year when the maximum draft has taken place will appreciate what that means.

Mr. WHITE. Do you think that it is more important to have a beautiful lake shore than it would be to have land in production and under irrigation?

Mr. CLINTON. Holding Jackson Lake full is not done for recreation, Mr. White. Having it full and benefiting recreation is entirely incidental.

Mr. WHITE. Recreation is fishing and boating and sailing and things like that?

Mr. CLINTON. That is right.

Mr. WHITE. If there is a little mud along the side of the lake do you think it is more important to have that mud covered with good clear water than it would be to have sugar beets and other crops?

Mr. CLINTON. Any time the water is needed for irrigation it will be drawn out regardless of whether it hurts recreation or not.

I would like to tell you a little more about the flood control feature of the project. First, let me go back and compare with the plan contemplated at the time the project was authorized. At that time it was planned that the top 500,000 acre-feet of the reservoir would be used primarily for flood control and that the next layer of 400,000 acre-feet would be used incidentally for flood control, leaving the bottom 300,000 acre-feet of the reservoir reserved solely for irrigation.

In the studies that have been made by both the Bureau of Reclamation and the Corps of Engineers since 1941 we have found both on this watershed and on several other watersheds that there is a very good opportunity to use the entire capacity of reservoirs of this type in these particular areas for both flood control and irrigation.

In those years that there is a large run-off from the snow melt it always occurs at the same period of the year. In other words, say from April on through the middle of June. That is the only time of year that we do have floods.

The volume of run-off that comes off at that period can be forecast within reasonable limits by taking measurements of the depth and water content of snow during the winter on the watershed; that is, taking periodical measurements, and correlating those measurements with the subsequent run-off.

Mr. WHITE. How much of a layer do you say you would have for flood control on the proposed Palisades Reservoir? How many feet deep?

Mr. CLINTON. We plan now to use the entire capacity.

Mr. WHITE. I know, but you said that one part of it would be for flood control, a layer of water.

Mr. CLINTON. Oh, yes.

Mr. WHITE. How thick did you say that would be?

Mr. CLINTON. That was in the original plan. It was the top 500,000 acre-feet which was to be used primarily for flood control.

Mr. WHITE. The top how many feet?

Mr. CLINTON. The top 500,000 acre-feet.

Mr. WHITE. How deep would that water be?

Mr. CLINTON. I do not recall that, Mr. White. It is about one-third of the depth of the reservoir, or somewhere in there.

Mr. WHITE. You do have a flood-control district downstream that has been mentioned in the hearings. What is the name of that again?

Mr. CLINTON. The Heise-Roberts flood-control district.

Mr. WHITE. Let us take a little trip in a boat, you and I. We are up there in that place in the Swan Valley, above Swan Valley at the site of this Palisades Dam. We go down the Snake River and we come along and notice a shore line as we go along. It is rather steep and there are heavy boulders and other heavy material on the shore line. There is no land there for quite a ways which is affected in any way by the flood, is there?

Mr. CLINTON. There is none until you pass Heise.

Mr. WHITE. We come clear down to this flood-control district which you mentioned, and there the river valley flattens out and the land is alluvial. When the water rises it overflows the land.

Mr. CLINTON. That is right.

Mr. WHITE. How much of an area is that?

Mr. CLINTON. There is an area immediately adjacent to the river that is subject to water flowing over it of somewhere in the neighborhood of 20,000 acres.

Mr. WHITE. Twenty thousand acres. Has that ever been flooded in the past years?

Mr. CLINTON. Yes.

Mr. WHITE. Then we get in the boat again and go on down. We come to a very deep and steep-sided gorge or gulley, which the Snake River flows down, pass Twin Falls, on down to Shoshone and this town of Twin Falls and so on. Where do we find any other land that will be affected by flood control?

Mr. CLINTON. There is a section between Shelley and the backwaters of the American Falls Reservoir.

Mr. WHITE. The backwaters of the American Falls Reservoir? That is a storage proposition?

Mr. CLINTON. No.

Mr. WHITE. That can be regulated from the gates.

Mr. CLINTON. This is a river channel upstream from the shore line of American Falls Reservoir.

Mr. WHITE. I beg your pardon?

Mr. CLINTON. This is a section of the natural stream between Shelley and Blackfoot.

Mr. WHITE. It is not affected by the storage of water in American Falls Reservoir?

Mr. CLINTON. No.

Mr. WHITE. How much land would be overflowed there? What is the record?

Mr. CLINTON. It is not so much a case of the land being overflowed there as it is the damage to irrigation canal head works.

Mr. WHITE. It does not hurt the land?

Mr. CLINTON. No; but it does hurt the works.

Mr. WHITE. Now we go on down in the boat. Do we find anything there? Is there any low-lying land at all?

Mr. CLINTON. None, except for extreme high floods.

Mr. WHITE. Where would that be?

Mr. CLINTON. There would be some around Burley, along the backwaters of the Milner Dam.

Mr. WHITE. Then this big 500,000 acre-feet of water you are talking about for flood control, storing it back, is such that the only place you are protecting could be described as in two places. One place is where there are some head gates and the other place is this flood-control district you mentioned awhile ago.

Mr. CLINTON. The Heise-Roberts area. I would like to add, Mr. White, that there is not only the 20,000 acres of land in that flood-control district that was brought out the other day, but that there is also a danger of the river breaking over into the great feeder or another channel further south and taking out all of the headings for canals serving over 100,000 acres.

Mr. WHITE. Where is this danger of breaking?

Mr. CLINTON. Breaking to the left through either the great feeder, which is the old flood channel that is now used as an irrigation canal, or cutting a new channel farther south.

Mr. WHITE. What point? Near what point?

Mr. CLINTON. That is near Heise.

Mr. WHITE. That is still a part of that project you just mentioned?

Mr. CLINTON. Yes, sir.

Mr. WHITE. You were talking about the storage there. You are going to increase the power. I think you said you are going to 112,500 kilowatts. The original plan was 60,000, was it not?

Mr. CLINTON. The original plan was 30,000 kilowatts.

Mr. WHITE. You have more than doubled it?

Mr. CLINTON. Yes.

Mr. WHITE. You do not have dump power. You run it all the year round. Will that not interfere with irrigation?

Mr. CLINTON. The amount of water discharged during the winter, that will produce the firm power, is water that would have to be passed to American Falls anyway to fill American Falls. American Falls has a prior right on the stream and the water that is passed through Palisades in the winter to produce firm energy will not interfere with irrigation.

Mr. WHITE. The point is this: Can you produce this extra power without holding back water that would naturally go down for irrigation of land? Do you not reduce the amount of land irrigated by increasing the power produced?

Mr. CLINTON. No; we do not.

Mr. WHITE. You were going to tell us something about American Falls and Jackson Lake. I will withhold my other questions until you have completed your statement on that, but I do want to know something about those points.

Mr. CLINTON. I would like to continue, Mr. Chairman, with the flood-control operating plan.

We of the Bureau of Reclamation and the engineers of the Corps of Engineers believe that this reservoir can be operated successfully for both flood control and irrigation. In other words, we believe that space can be evacuated from the reservoir in the spring of the year and when the spring snow melt starts the flood flow can be stored in that space to prevent any flood damage downstream, and at the end of the flood season we can have the reservoir full for irrigation purposes.

The degree of success in that operation will depend on the forecasting, how good a forecast we can make. If we could make a 100-percent accurate forecast, we could get 100-percent flood control and be sure of having all the water in the reservoir that could possibly be stored there.

Mr. MURDOCK. That would make it truly a multiple-purpose dam.

Mr. CLINTON. Yes; a multiple-purpose dam.

Mr. MURDOCK. May I ask one question: Can you do that and make power production always subservient to irrigation?

Mr. CLINTON. We will always make power production subservient to irrigation. Whatever power we get will be entirely incidental after you have passed water through for the other purposes.

Mr. MURDOCK. I think that meets the western ideal for such projects.

Mr. CLINTON. I have a rather lengthy statement that I will not take the time to read, but it does deal primarily with the forecasting, since our success, as I said a minute ago, depends entirely on how good a forecast we make.

We plan to use every available means to improve forecasts as the years go by. The main basic data that we have starting out are snow survey data. Additional snow survey courses are being installed on the watershed, and precipitation gages will be installed later and we will use those and any other indices that we can get to improve the forecasts. During the spring of the year when we will be making periodical forecasts there is a provision in the operating plan for the water users and other local interests to participate in making those forecasts, to review them, and to contribute any knowledge or advice that they have during that period.

The forecasts will be made monthly starting about the first of February and the interval between them will be be decreased as we progress into the season. By the time we get up to the beginning of the snow melting the actual forecasting may be done every day.

Mr. WHITE. You were going to tell us something about the prices. I believe you said in your opening statement you would tell the committee something about the cost?

Mr. CLINTON. Yes; I am coming to that now, Mr. White.

Mr. BARRETT. Before you get into that subject, can you tell us how accurate you anticipate your forecasting will be, so as to insure that water stored in Jackson Lake may be released before the snow melts, so that we may avoid flood conditions on the Snake River between Jackson Lake and Palisades?

Mr. CLINTON. First, on the accuracy, Mr. Barrett. There are snow survey forecasts being made now in California where the accuracy is reported to be within 2 to 5 percent. We have made the general statement in the case of Palisades that we hope to hold our forecast errors under 10 percent, but we believe that after a few years the error can be reduced considerably below 10 percent.

Mr. BARRETT. Tell me how you propose to regulate the storage in Jackson Lake so that the floods will be minimized if not completely eliminated on the Snake River in Wyoming.

Mr. CLINTON. Going back to the irrigation operation you will recall that I said that irrigation water would be drawn out of Jackson Lake last, after Palisades is built, in order to conserve the maximum amount of water. That would essentially make a hold-over reservoir out of Jackson Lake.

At the same time we are cognizant of the flood-control problem in Jackson Hole. There are two ways of meeting that. One will provide some incidental control.

The first that will provide incidental control will be through the evacuation in the fall of the year of about 200,000 acre-feet of space out of Jackson Lake. That water will be drawn out primarily to protect the dam during the winter from ice damage which would occur if the water level were held at full.

The filling of that space in the spring of the year, if it is deferred clear up until the snow melts, would mean that you would probably get full flood control value out of it. We believe that through the cooperation of the storage rights in Jackson Lake that space can be filled in the spring of the year when it will provide the maximum control for the Jackson Hole area. It should be recognized, however, that the Jackson Lake Reservoir is primarily an irrigation reservoir. It was built for irrigation and it has all been paid for by Idaho water users.

You will recall also in recent years, especially this spring, that the Idaho water users have made a very conscientious effort to try to hold off filling that reservoir as long as they safely could do so without jeopardizing their supply of irrigation storage.

Mr. BARRETT. As I understand it, you propose to take out 200,000 acre-feet of water from the Jackson Lake in the late fall and store it in Palisades, is that right?

Mr. CLINTON. It will be used either for irrigation or stored in Palisades. If it is drawn down before the end of the irrigation season it will be used for irrigation. Otherwise it will be stored at Palisades.

Mr. BARRETT. That would leave the Jackson Lake pretty low would it not?

Mr. CLINTON. No. It is an 800,000 acre-foot reservoir.

Mr. BARRETT. How much water would be left in the lake?

Mr. CLINTON. Around 600,000 acre-feet left in the lake.

Mr. BARRETT. Let us take the early spring, then. What would be your plan about taking water out of Jackson Lake?

Mr. CLINTON. We would hold that space vacant and not fill it until as late in the spring as possible in order to catch the peak of the flood, to reduce flood damages in the Jackson Hole area.

Mr. BARRETT. The point I am trying to drive at is this: Will enough water be taken out of Jackson Lake by the time the snow melts so that the flood-control situation will be pretty well taken care of when the water comes down?

Mr. CLINTON. I think I can answer "Yes," on that, Mr. Barrett, but it will be a combination of that storage regulation and the levees that the Corps of Engineers plan to build there. It will take both of them.

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Mr. BARRETT. Can you tell me this: Is there any good reason why water should not be drawn down to a point where, from the reports of your forecasters, you would be reasonably sure that the Jackson Lake would be filled with the spring run-off?

Mr. CLINTON. I think it could be done, Mr. Barrett, but the Bureau of Reclamation does not have authority to do it. It would have to be done with the permission of the people who own the space. If they are willing to operate Jackson Lake on a forecast basis as we are now setting up Palisades, I think it could be done.

Mr. BARRETT. It seems to me that it could and should be done. It seems that no one would be hurt and Wyoming would be getting some benefit out of this project by so doing. Personally, it would seem to me that if you are as accurate as you state—and I am sure you are—in the spring of the year you could say, "We are going to have so much run-off and we are going to draw Jackson Lake down to some figure, say 400,000 acre-feet, and the run-off is going to replace that amount that has been taken off so that the lake will be able to take care of all the run-off up to its capacity of 800,000 acre-feet."

Mr. WHITE. Will the gentleman yield?

Mr. BARRETT. I just want to find out.

Mr. WHITE. I will wait for the answer.

Mr. BARRETT. I understood he indicated in the affirmative.

Mr. CLINTON. Yes; I agree with you, but I want to qualify it, that it is contingent on getting some agreement with the Idaho storage rights.

Mr. BARRETT. What I would like to know now is this: Can I give the people of Wyoming any assurance that we are going to get the protection from this project, as we had hoped and anticipated we would, to bring about that result?

Mr. CLINTON. Well, I think you can say that the degree of control we have had in recent years will be maintained.

Mr. BARRETT. That is not enough, because we have had floods, as you well know, and bad ones on the Snake River. It seems to me that Idaho is getting 5,000,000 acre-feet of water out of Wyoming and they ought to take proper measures so that they will take it at times when it will help us a bit in the process. I do not see any reason why that should not be worked out. I am surprised to learn that we have no assurance that it is being worked.

Mr. SANBORN. Mr. Clinton, that is in your plans and objectives, is it not?

Mr. CLINTON. Yes. We do plan, Mr. Barrett, to give considerably more study to the joint operation of Jackson Lake and Palisades. I can give you this assurance: We will make every effort to try to work out the thing you are seeking, to give you the maximum flood control up there.

Mr. BARRETT. It seems to me that the people in Idaho should not be concerned where that water is stored because they can use it just as well out of Palisades as they can out of Jackson Lake.

Mr. CLINTON. I would like to explain that point, Mr. Barrett. Jackson Lake is the highest reservoir on the watershed and there have been quite a few years in the past that it did not fill. In the same years American Falls Reservoir filled and spilled.

Mr. BARRETT. Well, I agree with you there. I predicated all of my statements, as you will remember, on your own forecasting.

Mr. CLINTON. Yes.

Mr. BARRETT. I started out to find out how accurate it was. I think you are right about the accuracy of your forecasting.

I assume that you will be able to tell within 10 percent just what is going to be the run-off up there.

Mr. CLINTON. Yes.

Mr. BARRETT. I certainly would not expect Idaho to take any chances, but on the other hand if the water is going to flow out of Jackson Lake and create damage in the spring of the year along the Snake River in Wyoming, we are going to be hurt and nobody is going to be benefited.

Mr. CLINTON. Yes.

Mr. BARRETT. That is the whole thing in a nutshell.

Mr. CLINTON. I think you have a very good point. Although I cannot say that it has been fully taken care of yet, we are doing everything we can to take care of it.

Mr. BARRETT. Do we need to do anything in the line of legislation to do this? As I understand it, some of the people in Idaho have storage rights in Jackson Lake, and if they do not agree to this it just cannot be done. Is that the situation?

Mr. CLINTON. I think it will take agreement out there more than it will take legislation by the Government. I think it is something that can be worked out with the Idaho water users, and it is a job for the Bureau of Reclamation to try first.

Mr. BARRETT. I hope that it can be done because we would like to get some substantial benefits out of the regulation of that stream there.

Mr. CLINTON. Yes.

Mr. MILES. Mr. Barrett, may I ask a question?

Mr. BARRETT. Yes.

Mr. MILES. It seems that Wyoming is giving water to other States, and if there is any question about the use of that water up there we would be glad to have some of it in New Mexico.

Mr. BARRETT. Well, we are very accommodating as to furnishing water, as the evidence here shows. There are 5,000,000 acre-feet of water coming out of Wyoming going across the line into Idaho. We are very thankful that we are going to get about 200,000 acre-feet for use in our State in addition to the water presently used, but the thing that does concern us somewhat is that we would like to have Idaho take that water out so that it will do the least possible damage in Wyoming.

Mr. WHITE. I am not familiar with the topography of the Jackson Lake country and the outlet. I assume that the reservoir of Jackson Lake has a dam at the lower end of the lake and a spillway.

Mr. CLINTON. That is correct.

Mr. WHITE. What happens if the lake is full and there is a heavy run-off? Does it not spill over the dam and go on down the river?

Mr. CLINTON. It goes through the spillway, Mr. White.

Mr. WHITE. I beg your pardon?

Mr. CLINTON. It goes through the spillway and on down the river.

Mr. WHITE. If there is a heavy run-off on the spillway, say 4 feet higher than usual, how much land will be flooded around Jackson Lake in that event?

Mr. CLINTON. The damage is below the dam, below the lake, down in the natural-stream channel rather than around the shore line of the lake.

Mr. WHITE. Would any agricultural land be flooded between the lake and the Wyoming line?

Mr. CLINTON. Yes. That is what Mr. Barrett is speaking about.

Mr. WHITE. What is the record? Have there been any floods to amount to anything in the State of Wyoming between the boundary line of Idaho and the Jackson Lake Reservoir?

Mr. CLINTON. There have been several years when damage occurred there, damage to farm lands.

Mr. WHITE. How much damage?

Mr. CLINTON. I could not give you a figure offhand.

Mr. WHITE. The gentleman from Wyoming was asking about this, and, in the event that the water should be drawn out of this reservoir and there happens to be a heavy run-off, does it not go on over the dam and on down to be stored at Palisades?

Mr. CLINTON. Yes; but it does flood some land in the Jackson Hole area, below Jackson Lake Dam, while it is going through.

Mr. WHITE. The plan would be to empty the reservoir and empty the lake as much as you could?

Mr. CLINTON. That is correct.

Mr. WHITE. Then the snow would melt and the floods would come down and the water would be stored there. Could you limit how high it would rise? Would there not be an exceptionally high-water year, no matter what happens and how low the water is in the reservoir? Would it not fill up and continue to rise and do the same damage?

Mr. CLINTON. Not if you had the reservoir empty before the flood occurred. If you had the reservoir empty before the flood occurred, even in such a year the reservoir would practically fully control it.

Mr. WHITE. You think there is not enough drainage behind the reservoir?

Mr. CLINTON. No.

Mr. WHITE. In the case of deep snow, with warm winds, warm sun, and a late spring, so that this would be brimming full higher up, you think it is possible to hold any flood there if the lake is empty?

Mr. CLINTON. I believe if the lake were empty that it would hold the maximum flood of record. It is a large reservoir.

Mr. WHITE. You are talking about a lake, Jackson Lake?

Mr. CLINTON. Yes.

Mr. WHITE. How much water do you propose to draw off?

Mr. CLINTON. Two hundred thousand acre-feet.

Mr. WHITE. Two hundred thousand acre-feet?

Mr. CLINTON. Yes.

Mr. WHITE. If drawn off late, that would not do anybody any good. It would escape on down to the Snake River and go to the ocean.

Mr. CLINTON. It could be stored at Palisades.

Mr. WHITE. You would transfer the water from Jackson Lake to Palisades?

Mr. CLINTON. That is correct.

Mr. WHITE. Tell me something about the cost of putting the water on the land.

Mr. MURDOCK. Before you go to that, may I ask a question? Is there a power development at Jackson Lake?

Mr. CLINTON. No; there is not.

Before going to the cost item, Mr. Chairman, I would like to enter in the record this written statement on the flood-control operating plan.

Mr. MURDOCK. Without objection it may be so admitted.

(The statement is as follows:)

DESCRIPTION OF FLOOD CONTROL OPERATING PLAN FOR PALISADES RESERVOIR

Operation of Palisades Reservoir for flood-control purposes in conjunction with its use for irrigation and power production will initiate a new high level of multiple-purpose use. It is the first project in the Pacific Northwest for which multiple use for these conflicting purposes is contemplated for the total live storage capacity on the basis of stream-flow forecasts.

The plan is to operate Palisades Reservoir on the basis of periodic forecasts of run-off during the period February 1 to July 31 of each year. The forecasts would be based upon precipitation, temperatures, snow surveys, and run-off data available prior to the date of the forecast. The storage space in Palisades Reservoir allocated to flood control is defined as that space in the reservoir, using the governing forecast of flood run-off for the year according to prescribed operating limitations required to control the forecasted flood volume from the time reservoir inflow first exceeds 20,000 second-feet through the succeeding July 31, by releases not exceeding 20,000 second-feet at the Heise gage insofar as that control can be effected by a reservoir capacity not exceeding 1,200,000 acre-feet. Tentative allocations of space would be made on the basis of forecasts made before the governing forecast (as of the time inflow exceeds 20,000 second-feet), to control evacuation of space prior to that time. Releases between 20,000 and 30,000 second-feet would be permitted in case the indicated capacity to control the flood exceeds the total active capacity, but the outflow would not exceed 30,000 second-feet except under the extraordinary circumstances of a full reservoir when release would equal inflow.

The effectiveness of this manner of operation has been checked by application of the method in reservoir-operation studies extending through 25 years of recorded run-off. Records of precipitation, snow-water content as determined from late winter and early-spring surveys, and of antecedent run-off were utilized for each year's operation in a definite prescribed manner, thereby eliminating the element of hindsight operation from the studies even though all of the records of resultant run-off and flood discharge were available. The check studies indicated that with presently developed forecasting methods, and presently available basic data from snow surveys, precipitation gaging stations, and temperature records, Palisades Reservoir, operated on a forecast basis as described in the plan, could adequately control all of the known floods of Snake River to releases of 30,000 second-feet or less at Heise, Idaho. Under the assumption that the floods which occurred prior to the establishment of snow surveys could have been forecasted within the same limits as developed for the later floods, all except two or three of the floods occurring since 1890 could have been reduced to 20,000 second-feet or less.

The operating plan agreed to by the Corps of Engineers and the Bureau of Reclamation and appended to the supplemental report on Palisades Dam and Reservoir project provides that—

"The Bureau of Reclamation will forecast from time to time during the period February 1 to July 31 of each year, on the basis of precipitation, temperature, snow survey, and run-off data, the volume of run-off that may be expected in the drainage area * * *."

The water users and other local interests will have an opportunity to participate in the forecasting through the following proviso which states:

"To the extent that such services can be arranged for by cooperative agreements, the Bureau of Reclamation will make the forecasts hereunder after consultation with the Reclamation Engineer of the State of Idaho or his authorized representative * * *"

Presumably, this representative would be the Snake River watermaster, who would thus represent the water users and other local interests. It provides further that—

"Until such time as a better method of forecasting be devised, the forecasts will be based upon estimates of area elevation weighted snow-water content as deter-

minded from periodic snow surveys on or about February 1, March 1, April 1, and May 1, and upon precipitation for September of the preceding year."

Forecasts made in this manner were used for the check studies with the exception that the May 1 forecast was not made. As previously stated, the April 1 forecast was used throughout the subsequent months of April, May, June, and July, modified only by deducting recorded run-off between April 1 and the subsequent dates. In actual practice the April 1 forecast will be modified further by utilizing spring precipitation data and other indexes. By such modifications, the error in forecast can be reduced by considerably more than the amounts the reservoir would have failed to fill, as indicated by the check studies.

Provision is made in the operating plan for the Secretary of the Interior to revise or modify the operating plan after consultation with the Secretary of the Army if operating experience indicates the desirability therefor. Thus the plan will be reviewed in the light of additional hydrologic data available by the time the Palisades project is completed, and periodically thereafter, with a view to modification of the plan. The snow course survey program has recently been extended by addition of six new strategically located courses which should, by the time of completion of the reservoir, provide additional basic data that will improve the accuracy of forecasts. Airplane reconnaissance of the basin and comparative photography, showing extent of snow coverage in late spring every year would provide an additional index of run-off by which late season forecasts might be modified. It is intended that all means to improve the multiple use of the reservoir will be considered and all practicable means will be used.

In summary, there are certain areas in the West which have physical and climatological characteristics which permit unusually accurate forecasts of run-off. Such areas include, for example, the westward drainage from the Sierra Nevadas and the drainage area of the Upper Snake River basin. Since more efficient use of reservoir storage can be made on this basis in those areas where it is practicable, than by use of more conventional methods of assigning storage space arbitrarily, the operation plan adopted for Palisades Reservoir is in the public interest for irrigation, power, and flood control alike.

Mr. WHITE. You mentioned flood control. Is it not a matter of fact that this is regulation of the flow of the lake more than flood control? You are going to regulate the water and store it and regulate its flow. You will let the water down at the low-water periods of the river. That would be the main objective rather than flood control?

Mr. CLINTON. Yes. The primary objective is irrigation storage.

Mr. WHITE. And the regulation of the flow of the river.

Mr. CLINTON. Yes; but for irrigation and flood control.

Mr. MURDOCK. Mr. Clinton, before you go to another topic I want to note for the record that Senator Watkins of Utah, a member of the Senate committee meeting jointly with us, has come in and has been listening to this part of the testimony. We hope he will remain for the rest of the testimony. Senator Watkins, if those gentlemen get tired of your company down there, come up this way. We are very glad to have you here.

Mr. CLINTON. If I may, Mr. Chairman, I would like to refer to the map to show you one more feature of the project before going to costs.

This is the fish and wildlife feature of the project, which involves an exchange of water between Palisades Reservoir and Grays Lake in order that Grays Lake can be held at constant level and used primarily for wildlife purposes.

Prior to the time that lake was developed by the Indian Service for irrigation it formed an excellent habitat for various waterfowl, such as geese and ducks, and for muskrat, but in 1924 the Indian Service, which had already acquired water rights, developed that lake as a storage reservoir for the project. Since that time they have had an active capacity of 40,000 acre-feet in that reservoir, and it has been filled in the spring of the year and drawn down during the irrigation season.

As a result of that, it has interfered with the nesting of waterfowl and the muskrat propagation in that area.

Mr. WHITE. Are you talking about Jackson Lake Reservoir now?

Mr. CLINTON. No; I am talking about Grays Lake. It is over here on a stream south of Palisades. It is up in the headwaters of Willow Creek.

Mr. WHITE. It is used for a reservoir now?

Mr. CLINTON. It is being used now by the Indian Service.

The Bureau of Reclamation, the Indian Service, and the Fish and Wildlife Service have worked out an agreement whereby we would provide 55,000 acre-feet of space in Palisades and the water stored in that reservoir space would be released down the Snake River and delivered to the Indian Service canal near Blackfoot and on out to the Fort Hall Reservation.

In exchange for receiving that water, the Indian Service would release all rights that it now has in Grays Lake and essentially turn that lake over to the Fish and Wildlife Service and the Idaho Fish and Game Commission to operate it to get the greatest wildlife value from it. That lake can be operated so that the level will be held approximately constant during the time that waterfowl are nesting, and also to allow the maximum propagation of muskrat.

Mr. WHITE. In which direction does this operate?

Mr. CLINTON. It is brought across a divide through the canal known as Clark's Cut, down the Blackfoot River, and into the Fort Hall canal.

Grays Lake is a large, shallow body of water. It is shallow enough that there are rushes, water vegetation, throughout the lake. The length of it is about 9 miles, and it has a width of 5 miles, to give you an idea of the size of the body of water. It is one of the best nesting areas in the western United States, according to the Fish and Wildlife Service. That agency is very anxious to have this agreement carried out.

Mr. WHITE. The equivalent of how much water will be taken out of Palisades Reservoir? What is that exchange you are talking about?

Mr. CLINTON. The yield of 55,000 acre-feet of space.

Mr. WHITE. 55,000 acre-feet?

Mr. CLINTON. Yes.

Mr. WHITE. In allocating the cost of construction of the reservoir, will the Indian Service bear any part of the cost of the allocation to construction of Palisades?

Mr. CLINTON. That is a point I was leading up to, Mr. White, that through this exchange we have a justification for allocating part of the cost of Palisades Reservoir to fish and wildlife. The allocation is a little over $2,000,000.

Mr. WHITE. You say that 55,000 acre-feet is involved. How much will they pay for it, $2,000,000?

Mr. CLINTON. $2,800,000 will be allocated to the preservation of fish and wildlife.

Mr. POULSON. Will you say, "a little under $3,000,000" instead of "a little over $2,000,000"?

Mr. CLINTON. Excuse me. It is $2,800,000.

Mr. WHITE. Was I right when I said 55,000 acre-feet?

Mr. CLINTON. The total cost of the reservoir is $76,000,000.
Mr. MURDOCK. $76,000,000?
Mr. CLINTON. Yes.
Mr. MURDOCK. This is $2,800,000?
Mr. CLINTON. $2,800,000.
Mr. MURDOCK. Thank you. I will figure it out.
Mr. D'EWART. May I ask a question?
Mr. MURDOCK. Yes, Mr. D'Ewart.
Mr. D'EWART. What would be the result if you told the Indians to keep the water at Grays Lake and save the taxpayers $2,800,000?
Mr. CLINTON. Well, you would continue to lose the value of that reservoir for propagation of wildlife.
Mr. D'EWART. Would they not have the water still available if you left it there for the Indians?
Mr. CLINTON. Essentially, we do not change the supply of water for the Indians through this exchange in any way.
Mr. D'EWART. What I am really asking is justifiention for this $2,800,000. It seems to me we could let the Indians keep Grays Lake and save the taxpayers $2,800,000.
Mr. CLINTON. A justification for the $2,800,000 is the increase in wildlife value that you get out of the exchange.
Mr. D'EWART. Will there be any increase?
Mr. CLINTON. According to the studies made by the Fish and Wildlife Service, there will be a substantial increase.
Mr. D'EWART. Where?
Mr. CLINTON. At Grays Lake through the stabilization of that lake. If you do stabilize it, you will stop drowning out ducks' nests in the spring of the year, and muskrat nests.
Mr. D'EWART. There must be a lot of muskrats per year.
Mr. DIXON. Mr. D'Ewart, may I comment on that?
Mr. WHITE. Let me ask a question.
The nesting period for waterfowl is not until May, is it?
Mr. CLINTON. It is in the spring of the year.
Mr. WHITE. That is just when the water is up. You do not start drawing water down until July.
Mr. CLINTON. That is when the water rises. That is when you are storing water, in the spring of the year.
Mr. WHITE. I know, but the nesting time of the year is when the water is up for waterfowl, is it not?
Mr. CLINTON. Yes.
Mr. WHITE. Will the use of this lake in any way interfere with the nesting habits of waterfowl?
Mr. CLINTON. They claim it does?
Mr. WHITE. You think it does?
Mr. CLINTON. The Fish and Wildlife Service states that it does interfere. The operation of it at present for irrigation does.
Mr. WHITE. With regard to muskrats, they are very adaptable. They move around. You do not kill off muskrats, do you, if you raise the lake?
Mr. CLINTON. I am not very well qualified to answer that.
Mr. DIXON. Mr. Chairman, I wonder if I might suggest that we are going into considerable detail on the fish and wildlife benefit at Grays Lake. I mentioned a moment ago that, while we may consider ourselves to be amateur experts, we have a professional expert in the Director, Mr. Albert Day, of the Fish and Wildlife Service, who wants specifically to talk on this point. I think, if those questions relating to that aspect could be saved for him, you would probably find the answers much more to the interest and concern of the committee.

Mr. WHITE. Mr. Chairman, in response to the comment of the gentleman, I will say that the fish and wildlife aspect was brought in, and I think we have consumed a lot of time. We would like to know about how the settlers are going to be treated and how the water is going to be paid for, and the space in American Falls Reservoir and Jackson Lake, and a lot of very important details which are not receiving attention. I am very determined to know something about these people in Idaho and the money they have put up to construct Jackson Lake, the money they have put up to construct American Falls, and just how this will be done.
Mr. MURDOCK. I think the witness is now ready to go into that.
Mr. CLINTON. I am ready.
Mr. MURDOCK. I think the suggestion is a good one that we defer other questions until the expert can help us out on it.
Mr. CLINTON. I would like to give you the break-down of the costs of the Palisades project. It was stated by previous witnesses that the total cost is $76,000,000. Of that, the dam and reservoir accounts for $54,550,000, the power system, $21,550,000, and the fish and wildlife facilities, which include the facilities necessary for operating Grays Lake, regulating the level of it, $350,000, and recreation facilities around the shore line of Palisades are $150,000.
The benefit-cost ratio for the project as a whole is 1.37 to 1.
Mr. WHITE. What is that statement?
Mr. CLINTON. The benefit cost ratio is 1.37 to 1. That total cost is allocated in this manner.
Mr. WHITE. Would you give us the total cost before you break it down?
Mr. CLINTON. $76,600,000. Of that total cost, $21,730,000 is allocated to irrigation, $23,040,000 is allocated to power.
Mr. POULSON. You will find that on page 33, Mr. White.
Mr. CLINTON. $22,730,000 to flood control, $2,800,000 to fish and wildlife, $6,300,000 to recreation. There is a total of $44,770,000 to be repaid by the water users and power users, and $31,830 to be nonreimbursable.
Senator WATKINS. Did you mean that figure?
Mr. CLINTON. $31,830,000 will be nonreimbursable.
Now, of the $44,000,000 reimbursable, the water users who buy space in the reservoir will repay $10,300,000, and the power users, those buying the various kinds of power produced there, will repay $34,070,000.
Mr. WHITE. Who pays that?
Mr. CLINTON. The power users. That is brought back in power revenues.
Mr. D'EWART. Could these figures include also 15 percent for contingencies and 15 percent for engineering and research?
Mr. CLINTON. Yes.
Mr. D'EWART. In other words, about a third of this is what you might term overhead, contingencies and engineering?
Mr. CLINTON. The normal amount for those has been allowed. It is around 30 percent.

Senator McFARLAND. Unknowns. You do not know just exactly how deep you are going to drill this well?

Mr. D'EWART. That is not a drilled well. Perhaps I should explain. When the water comes out of the pump it comes out with considerable force, and a small pond or well is built to stop the force of the water. Sometimes it is a well and sometimes it is just a small pond for that water to quiet down in and then flow off in a slow way so that it will not cut. I have seen hundreds of these made with gunny sacks filled with dirt, and they cost practically nothing, but these will be fancy, built of concrete and steel at $570 apiece.

Mr. POULSON. You can inscribe the names of the officials on them, too.

Mr. SANBORN. Mr. D'Ewart, with 15 percent engineering on top of 15 percent contingency it is possible that it costs more to engineer a mistake.

Mr. CLINTON. That is a common procedure that has been used and the people make these estimates, no matter how small the job, using the same procedure.

Mr. D'EWART. I think the committee would be justified in giving you just two charges for one well, and taking out the other 308.

Mr. CLINTON. I will not argue.

Mr. POULSON. Off the record.

(Discussion off the record.)

Mr. MURDOCK. Mr. Barrett?

Mr. BARRETT. Mr. Clinton, will you turn back to page 33 of the Palisades report. This interest component is computed on the basis of 3-percent interest?

Mr. CLINTON. Three-percent interest annually.

Mr. BARRETT. What is the 3 percent on?

Mr. CLINTON. That is on the remaining power investment that is not yet paid out. It is an amortization process.

Mr. BARRETT. It is not on the power cost?

Mr. CLINTON. It is on the portion of the power cost allocated to commercial power.

If you will turn to page 26, Mr. Barrett, there is an allocation there of the total power system cost, $14,055,800 to commercial power and $8,086,500 to irrigation power.

Mr. BARRETT. This is on the $14,000,000?

Mr. CLINTON. The interest is on the $14,000,000. In the pay-out study that interest is computed on the remaining investment. As a portion of it is paid out each year the interest is figured on the remaining investment.

Mr. BARRETT. Well, how do you figure it? For how many years is it?

Mr. CLINTON. This $6,372,000 is an accumulation of the interest that would be paid in each year at a decreasing rate as the investment decreases.

Mr. BARRETT. The first year it is $420,000?

Mr. CLINTON. Yes, and it decreases to zero. I do not recall the period in which the power investment is paid out. It is less than 50 years. I do not have the pay-out study with me to tell you exactly, but it is less than 50 years.

Mr. BARRETT. It is less than 50 years on the basis of 3 percent of the amortized balance?

Mr. CLINTON. Yes.

Mr. BARRETT. This $6,206,000 charged to recreation, is that mostly because of Jackson Lake?

Mr. CLINTON. $6,000,000 of it is attributed to Jackson Lake, justified on the basis of stabillzing the level of Jackson Lake during the tourist season. We have allocated $6,000,000 of the cost of Palisades for that reason. It is only because of building of Palisades that you can hold the level of Jackson Lake constant during the tourist season.

Mr. BARRETT. Off the record.

(Discussion off the record.)

Mr. BARRETT. There is just one more question that I am very much interested in. There is a contribution of $6,000,000 by reason of the stabilization of the water level of Jackson Lake. Would there be anything wrong with our writing in the report that in the light of that fact Congress expects that the stream flow will be regulated so that there will be no flood damage along the Snake River in Wyoming?

Mr. CLINTON. Well, that would be dependent, Mr. Barrett, on the Bureau and the people in Jackson Hole working out an arrangement or an agreement with the owners of those storage rights in Jackson Lake.

Mr. BARRETT. They are all involved in this project more or less, are they not?

Mr. CLINTON. All the Idaho users are. The Wyoming people are not participating in the project.

Mr. BARRETT. The Wyoming people are not involved too much with the use of any of that water stored in Jackson Lake?

Mr. CLINTON. No.

Mr. BARRETT. It seems to me that inasmuch as the taxpayers of the country are putting up this $6,000,000 as a nonreimbursable cost that certainly we ought to predicate that upon the assumption that the people along the Snake River in Wyoming are going to be relieved of the danger of floods along that river in the spring of the year and that the taxpayers of the country are going to be relieved of the cost of protecting against any floods in the spring of the year.

Mr. CLINTON. Well, I would like to point out that the $6,000,000 of recreational benefit can be attained without jeopardizing the Idaho users' supply of irrigation storage.

Mr. BARRETT. I think that is quite true. I think that this water can well be stored some place else besides Jackson Lake early in the year, and held up for Idaho orders later on, so they can turn it down any time they would like. It seems to me that we ought to tie this thing up and get some benefits out of this project for the taxpayers of the United States and incidentally for the benefit of the people in Wyoming.

If you have not worked that out I believe this would be a good time to come to an understanding with the people that have storage in Jackson Lake, Palisades, and American Falls.

Mr. CLINTON. As I said yesterday, we in the Bureau do intend to give further study to that whole problem of trying to get more flood control out of Jackson Lake for the Jackson Hole area.

Mr. BARRETT. I understand that the Bureau is, but the fact of the matter is that you do not own this storage and Idaho people do own it and they are in here now wanting some legislation. I think this would be a good time to get the matter cleared up. I believe it ought to be

done. I think we ought to have that agreement as a condition precedent on this reauthorization.

Mr. CLINTON. I think this last spring, Mr. Barrett, was a good example of the cooperation of the Idaho users. They went quite a ways to try to regulate Jackson Lake for flood-control purposes this year.

Mr. BARRETT. I think they did, also, but we still had a flood condition.

Mr. CLINTON. Not as bad as you would have had.

Mr. BARRETT. Perhaps that is true, but I do not see any reason why we should not take precaution against floods. I think with this $76,000,000 expenditure on Palisades that it can be worked out very well so that there will be little or no damage from floods.

Mr. CLINTON. Yes, sir.

Mr. BARRETT. At any rate, I wish Mr. Stinson or yourself would figure out some language for me for the report on that item.

Mr. CLINTON. I will let Mr. Stinson do that.

Mr. MURDOCK. Senator McFarland, have you any questions to ask of Mr. Clinton?

Senator MCFARLAND. No questions. Off the record.

(Discussion off the record.)

Mr. MURDOCK. We thank you, Mr. Clinton, for your statement.

Mr. CLINTON. In closing I would like to say that I have appreciated the opportunity to appear before the committee.

Mr. MURDOCK. We have now Mr. Ralph Gale of the Idaho Power Co. at Boise, Idaho. Mr. Gale, we would be glad to hear from you now.

Mr. RALPH GALE. Mr. Chairman, as a preliminary remark I would like to say that I do not know whether I understand as yet all of the features of this American Falls power plant and the cancellation of our 1934 agreement, and I do not know whether I will until after Mr. Stinson has completed his testimony.

It might be possible that I would like to say a word or two after he is through because this whole thing has come upon us rather suddenly. I had to leave Idaho knowing little or nothing about the program and have learned most of it from a hurried examination of the two reports plus what I have heard here in the room.

Mr. MURDOCK. Would it be to advantage, then to call on Mr. Stinson first?

Mr. GALE. It might be, sir.

Mr. MURDOCK. We had hoped that we might finish up this afternoon, and Senator McFarland tells me he must leave by 4 o'clock.

Senator MCFARLAND. That does not keep you from going ahead, Mr. Chairman.

Mr. MURDOCK. I think in this case, Mr. Gale, we might ask Mr. Stinson to give his testimony next, and you may follow him.

Mr. GALE. Thank you, sir.

Mr. MURDOCK. Mr. Stinson, are you ready to give your statement?

STATEMENT OF HOWARD R. STINSON, REGIONAL COUNSEL, REGION I, BUREAU OF RECLAMATION, BOISE, IDAHO—Resumed

Mr. STINSON. Yes, Congressman Murdock. I am Howard R. Stinson, regional counsel, region I.

Mr. Gale, you do not have to be excited about what I am going to say as to the 1934 contract and I think all the essential facts concerning the American Fall project have already been given. I am as anxious to get out of town as you are.

Senator MCFARLAND. You were given a warm reception here, were you not?

Mr. STINSON. Yes, indeed. We have days like that in Boise, but we have cool nights. We have not even had cool nights here.

I want only to point to some phases of the bill to show the committee how they will operate, and then I am going to pick on just two or three items to dwell on a little and I shall try very hard to hold my statement down to about 15 minutes, if I can.

The bill has five sections in it, of which four are of some substance.

The first section of the bill deals with the reauthorization of Palisades Dam and Reservoir.

There was a question earlier in the hearings as to why Palisades needs to be reauthorized. There are several reasons, but I want to point out a couple of them at least.

There is in this bill and in the report a flood-control-operating plan that is somewhat novel. There are some other cases of like flood-control plans, but at least for region I this is the first time that we have come into this kind of an operating plan by agreement with the Corps of Engineers. We think it will work very satisfactorily.

Mr. Clinton has made a rather good statement about that operating plan, but we need reauthorization so that we can carry out that plan and so also we can take advantage of the flood-control allocation, which amounts to something around $22,700,000. That is a sizable item for a flood-control allocation, but to the best of our knowledge that is a figure arrived at after careful consideration by the Corps of Engineers. The Corps of Engineers provided the Bureau with the figure, based on this operating plan.

There were some matters concerning the size of the power installation that required reauthorization, and I think it was incumbent on us to come back to the Congress at least to report on negotiations with the water users concerning winter water-savings agreements. Fortunately, we are able to report that we have reached a tentative agreement and that we can go ahead with an assurance that these minimum water-savings agreements will be worked out.

Section 2 of the bill is the one that authorizes the north-side pumping division of the Minidoka project. As an adjunct to that, it reauthorizes or authorizes—there is some border-line question as to the status of the American Falls power plant—this bill either reauthorizes or authorizes the completion of the American Falls power plant that was actually started by the putting in of the penstocks in 1926 and 1927.

I think there is some misunderstanding on the part of some committee members concerning the north-side pumping division that I should like to straighten out.

You all understand now that this is a body of public land. So far as the project actually defined in the report, it is 100-percent public land.

The notion has gotten about that somehow there is a commitment of water to that land from the American Falls Reservoir. That is not so. It is true that in the course of planning the American Falls Reservoir, Bureau people had in mind that a use and probably the greatest use would be for the development of that north-side pumping

think of it. Now we are proposing to provide for the disposition of the space now without interest in accordance with the current policy under the Federal reclamation laws.

All repayment provisions in this act—those relating to Palisades, those relating to the north side pumping division, those relating to American Falls—all repayments with respect to irrigation costs which are assigned to be returned from the water users require return within 40 years. The only departure from that is that that might result from a variation in annual charge, as is permitted under section 9 (d) of the Reclamation Project Act of 1939.

The basic period in all instances will be 40 years.

Section 4 of the bill——

Mr. MURDOCK. Before you leave section 3, I have a question. I think you explained it, but we might have a further word on it, since it was brought up yesterday.

How would you feel about a proposed amendment such as this: On page 3, line 3, after the word "reservoir" on line 3, strike out everything down to and including the word "representatives" on line 10, page 3.

Mr. SANBORN. Mr. Chairman, might I comment on that?

Mr. MURDOCK. Yes, I would be glad to have you do so.

Mr. SANBORN. And then Mr. Stinson can say what he wishes.

I believe that if that were done it would add an amendment that would mean practically no difference in the final adjustment of water, but at the same time would raise questions in people's minds that would create an uncertainty where now we have an agreement that is a certainty and has been agreed upon by a majority of the people in this project. I believe it would be much preferable to leave the wording the way it is in the bill.

Mr. MURDOCK. Mr. Stinson?

Mr. STINSON. Well I agree with Congressman Sanborn.

The fact is that after 2 years of just steady negotiations with both groups or with the three groups presenting different points of view we finally reached a compromise. I do not believe the Bureau representatives would feel at all inclined to go back on an agreement reached in that process, and we would like, if the Congress is willing, to have the Congress give us the support needed to carry out that agreement. We would feel bound to carry it out even though you would strike the sentence. I think I can speak with assurance that the people in charge of the Bureau of Reclamation will back us in that position.

Mr. MURDOCK. I thought the amendment would probably be brought up when the bill is read for amendment.

Mr. STINSON. Yes.

Mr. MURDOCK. I wanted to get your idea for the record.

Mr. D'EWART. I have a question regarding an amendment. I cannot determine just where it should go in if it were put in.

Suppose it is decided by the committee that with regard to the Minidoka plan at the end of the repayment period the project should be turned over to the irrigation district for maintenance and operation. Would the Department object to such an amendment?

Mr. STINSON. You are speaking of the north side pumping division?

Mr. D'EWART. Yes. This Minidoka area. I see where the Palisades

would be very difficult, but I can see no reason why the Minidoka should not be turned over to the users after the repayment period.

Mr. STINSON. Congressman D'Ewart, I will have to give my own impression here. This is an unusual project. It is the kind of project which, if you can work out a satisfactory arrangement with the organization for taking over, I should think such provision might be entirely suitable.

It has been the policy of the Department, and I believe it is currently the policy of the Bureau of Reclamation, to transfer to water users associations all of the works that it reasonably can.

Mr. Nelson, do you want to speak on that particular point?

Mr. NELSON. It is the policy of the Bureau of Reclamation, as Mr. Stinson stated, to turn over to water users those facilities relating to the irrigation of their lands. In some instances it is desirable to maintain possession and it is so indicated in the act applying to the Bureau of Reclamation that it should, to maintain the operation of multiple-purpose works, works on the main stream, and particularly those which are used for flood control.

However, it is our policy and it would be our policy in this case to turn the works over to the water users. As Mr. Stinson has mentioned, it is an unusual case.

At the present time I can see nothing that would stand in the way of such action, but by reason of the fact that it is the type of project with which we have not dealt before, we may find some condition unforeseen at the present time that would indicate a desirability of maintaining the operation. At present I see none.

Mr. D'EWART. One more question. This committee, as you know, hesitated a little bit in giving its approval, even by inference, to the retaining of the water rights for the Federal Government by providing utility type of contract I think that you know that from past history. By directives returning the project to the district, we would take care of that historical objection.

Mr. STINSON. May I say on that, as I tried to say in statements before the committee before, my understanding of the situation now by reason of section 8 of the 1902 act, is that the users will have a water right appurtenant to their land even though the legal title may be held in the name of the United States. I believe that they have a right that is a property right and can be defended in court. I am firmly of that opinion.

May I on this point indicate to you as indicative of the attitude on turning over some of these works to the water users, that even in the recommendations on the north side pumping division, appearing at page 13, there is a provision for the turning over to the repayment organization, or to some other qualified organization, this electric distribution system. The recommendation provides for the outright sale of the distribution system, excluding the backbone transmission line.

Now, turning over the wells, there might be a similar arrangement to that. It seems to me that if you were to do it, it should be in the nature of a permissive thing at the end of the repayment period. We are bound to run into some novel problems in drafting the repayment contract, I am sure of that and so ought not be limited by too specific a directive on the point of transfer.

I want to call attention to the fact that, in order to carry out this Grays Lake arrangement, we will have to enter into a three-way agreement between the Bureau of Reclamation, the Fish and Wildlife Service, and the Indian Service.

There are some possibilities in this case also that we will be entering into contracts to permit the use of Palisades space to supply water for industrial and municipal purposes. They will be quite limited. We have had some applications, but we do not really know yet how far these will be pressed. I think they do not represent a large percentage of the total space available.

Before we get through working out all the problems with respect to this general undertaking, we hope to enter into contracts providing for the permanent exchange of some Jackson Lake space. At the present time there are in Jackson Lake some rights that are owned by the Minidoka project in the lower valley—the lower valley as Mr. Newell identified it for you. We hope in the course of working out contracts to effect an exchange of that space so that that space will in effect go down to the American Falls Reservoir, and people who now have American Falls space who are upper-valley users will then get their supply from Jackson Lake. That will greatly facilitate operating arrangements along the river.

That is also a complicated situation, and we do not see the end of it yet.

Mr. BARRETT. That is approximately 400,000 acre-feet, as I remember it.

Mr. STINSON. 326,000 acre-feet, I believe.

Mr. BARRETT. That is to be stored in Jackson Lake until they want it on the Minidoka project?

Mr. STINSON. At the present time, they have the right to store it in Jackson Lake. We hope to move that storage right downstream, so to speak, and put it in the American Falls Reservoir.

Mr. BARRETT. Now, Jackson Lake will store about 800,000 acre-feet of water?

Mr. STINSON. Yes.

Mr. BARRETT. Who owns the rest of the water?

Mr. STINSON. It is all sold; it is all held by canal companies and irrigation districts in both the upper and lower valley. There are some important top rights, for example, held by the Northside Twin Falls Canal Co. and the Southside Twin Falls Canal Co. They are the principal holders.

Mr. BARRETT. Mr. Stinson, as I remember it, the testimony here disclosed that the Palisades Dam would be filled wholly 1 year out of 3. Why could not any water for the upper Snake River canals be stored in the Palisades Dam except in that 1 year when you have a complete supply?

Mr. STINSON. Congressman Barrett, I have a general notion of the answer. If I were to give it, I would be trespassing on the hydrographers' territory, and I would have to read their reports to answer you in any event.

Mr. BARRETT. I have been asking that question repeatedly. I would like to find out to whom I should talk.

Mr. STINSON. I think Mr. Clinton is the man to talk to about that point.

Mr. BARRETT. You give me some assurances, but I would like to get something definite tied down so we will know just what the program is going to be. Someone ought to be agreeing on it other than the Bureau of Reclamation, and we ought to get this problem worked out. I understand you are studying it; but, of course, every spring of the year we have floods up there on the Snake River, and we ought to be getting a plan worked out so we can look forward to a time when we will be reasonably protected against these devastating floods.

Mr. STINSON. Certainly this is true: If there is any way by agreement of carrying through and extending arrangements such as were in effect this year, the Bureau ought to be out there trying to work up such agreements. Just as a matter of good relations and good policy, the Bureau ought to be in there trying to do that. I am sure we will try.

Mr. SANBORN. You have to have something to work on before you can get down to business on that, and you need the Palisades authorization, at least, in order to get down to business on such a deal.

Mr. STINSON. We surely do.

Mr. MURDOCK. Let me say to my friend from Wyoming, down in my part of the country the very worst position can be at the lower end of the ditch, but it seems in the Pacific Northwest you are in the worst position when you are at the head of the ditch.

Mr. D'EWART. The Palisades Dam has already been authorized; we are just simply reauthorizing. You have something to work with.

Mr. SANBORN. That is true; but, of course, it has been explained here that the location has been changed and the size has been changed.

Mr. D'EWART. You still have the authorization, and the gentlemen can proceed with these negotiations.

Mr. STINSON. That is right.

Mr. BARRETT. I think he is right on that. There is no question we could come to some understanding here on the assumption that Palisades is going to be constructed.

Mr. SANBORN. Negotiations could be started.

Mr. BARRETT. I am not interested in starting negotiations; I am interested in the completion of negotiations. I think this is a good time to find out just where we stand.

Mr. POULSON. Are you not to get some benefits out of this $22,000,000?

Mr. BARRETT. Very little. I cannot see why we cannot have some language in this report that the committee expects, as the result of the reauthorization of the Palisades Dam, that an agreement will be worked out between the water users on the upper and lower Snake River projects in Idaho so that the water in Jackson Lake may be released before the run-off in the spring of the year and stored in Palisades or American in order to prevent floods in the Snake River in Wyoming.

Mr. POULSON. Do you make a motion that that goes into the record?

Mr. BARRETT. I do.

Mr. POULSON. I second.

Mr. STINSON. If it is agreeable to you, I will provide you with some language. I will try to do that.

The CHAIRMAN. Without objection, it is so ordered.

95850—49—ser. 20——13

(The statement requested by the committee is as follows:)

The committee understands from the Palisades supplemental report referred to in the bill that the Bureau of Reclamation plans to vacate and to hold vacant until May 1 of each year, unless forecasts indicate the need for earlier filling, 200,000 acre-feet of storage space in Jackson Lake Reservoir. It understands also that, in order to operate Jackson Lake on a forecast basis with the object of providing more space for flood control annually, an agreement would need to be entered into among the United States and the various water users' organizations who have legal rights to the use of Jackson Lake space for irrigation storage.

The committee is of the opinion, however, that the Bureau of Reclamation should make every reasonable effort to work out agreements with the interested water users' organizations to the end that, through use of run-off forecasts, a greater use of space in Jackson Lake for flood-control purposes can be effected for the benefit of the flood plain in Wyoming without materially infringing on the right of the water users to have the greatest possible use of Jackson Lake space for irrigation storage.

Mr. STINSON. I have just one other contractural arrangement about which I wish to speak for a moment. Mr. Clinton has told you that we have in effect now with the Idaho Power Co. this contract of October 1934; that is, a very complicated contract. Among its purposes was that of providing for some winter water savings in the operation of some Idaho power plants below Milner Dam. We recognize that the water-savings feature of that agreement needs to be carried forward and made effective through some new contract to be entered into with the power company. He has pointed out to you that we hope to be able to work out such an agreement, using, as at least part of our trading stock, replacement power that will be available from this American Falls power installation.

Related to that is the problem of working out some new arrangement for the continuation of the commercial power business of the Minidoka project.

You remember that Mr. Newell told you that that commercial power enterprise was undertaken very early in the history of the project. It has grown to be quite a thing for the project. The water users are getting the full benefit in terms of net power revenues from the first six units of that seven-unit power plant. It is necessary now to work out some new arrangement whereby commercial power will be provided for that system during the summer when all power produced at the Minidoka power plant is required for irrigation pumping on that project.

In the course of working out such a contract, we are going to find it necessary somehow to pass back to those who get the benefit of winter water savings a part of the cost of providing that power for the Minidoka commercial system. We have made an estimate of that cost in terms of $64,000 per year. It is a most complex thing. I do not think that I should try to get into it much further here other than to tell you we have that ahead of us. It is a matter of negotiation, but nothing in this act prejudges the manner in which we handle that particular arrangement. I speak of it partly for the record because the Minidoka project is considerably interested in that item.

I think that covers all the features of the bill in the report that I want to call to your attention now. I took practically 40 minutes, and I am sorry.

I would like to say that I would like to have the opportunity possibly of answering questions as the result of Mr. Gale's testimony and

Mr. Corey's testimony. I think that there may be some information, particularly with respect to transmission lines being built and what not, that you would like to have.

Mr. MURDOCK. I think that would be better. We will ask you to hold yourself in readiness to answer questions.

Mr. D'EWART. I have one or two questions. The over-all cost of the Palisades is $76,601,000 and for Minidoka, $11,395,000.

Mr. STINSON. Yes.

Mr. D'EWART. Are there any other costs included in this project?

Mr. STINSON. The American Falls power plant.

Mr. D'EWART. How much is the over-all for that?

Mr. STINSON. $6,600,000.

Mr. D'EWART. Those figures include 15 percent for contingencies and 15 percent for engineering and overhead.

Mr. STINSON. You have pointed out that they do, and I think you are right.

Mr. D'EWART. That is all.

Mr. MURDOCK. Thank you, Mr. Stinson.

We will hear from Mr. Gale.

STATEMENT OF RALPH GALE, IDAHO POWER CO., BOISE, IDAHO

Mr. GALE. My name is Ralph Gale.

First, I would like to show the committee the area in which our company operates, on this map.

This map was not prepared for this particular purpose, but I believe it will show you the area in which our company operates in the Rocky Mountain States, including this territory which I have circled [indicating].

We have connections with the California-Pacific Utlities Co. on the west and with the Utah Power & Light Co. on the south and to the east.

Mr. POULSON. Will you show us where these other power lines are going in?

Mr. GALE. Do you mean the power lines that are covered in this bill?

Mr. POULSON. Approximately.

Mr. GALE. They would start from Palisades over here [indicating]. I have not seen the exact routing. Mr. Clinton, of the Bureau, has stated that there are two lines from Palisades to Pocatello. That is approximately in this direction [indicating], and then one line from Pocatello to American Falls and on to Minidoka and down to about Milner. That is a description of the 115,000-volt lines which are proposed in this bill. The majority of these lines would duplicate our transmission system.

I am assistant to the president of the Idaho Power Co., which is a privately financed electric service company operating in southern Idaho, eastern Oregon, and northern Nevada. It is not financially or otherwise affiliated with any other company, holding company, or system. It is owned by 9,500 stockholders. Approximately one-third, or over 3,000, of the stockholders reside in the territory of the company. Our bonds are owned by 16 nationally known insurance companies and 3 pension-fund investor groups.

Our company serves a large part of the territory involved in H. R. 5506, and we are in favor of the authorizations requested, with the

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EXHIBIT 56

Excepts, "Palisades Project, Idaho – Project History – Volume I – Years 1931-1951"
(United States Department of the Interior, Bureau of Reclamation)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Region 1

* * * * *

PALISADES PROJECT, IDAHO

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PROJECT HISTORY

* * * * *

VOLUME I

YEARS 1931-1951

* * * * *

Palisades Project Office

Palisades, Idaho

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Period Covered by History

The period covered by this history includes early investigations and determination of dam site, initial authorization of the project, preconstruction activities (which included construction of a portion of the temporary camp facilities), construction of the Palisades-Goshen Transmission Line No. 1, first section of relocated highway, and reauthorization of the project.

Investigations began in 1931 to determine a feasible dam site. Investigations were carried on intermittently at Palisades Dam site from 1933 through 1939. In 1941 the project was initially authorized, and appropriations were made for the Fiscal Year 1945. A contracting authority was granted for the Fiscal Year 1949, but no construction contracts were awarded until late in the Fiscal Year 1949. A portion of the camp construction commenced in 1947 and continued through 1948. The transmission line was started in 1949 and finished in 1950. The first section of highway construction commenced in 1949.

The project was reauthorized in 1950, but funds were not available until Public Law No. 253, dated November 1, 1951, was passed by Congress.

The tunnel excavation contract was awarded December 7, 1951.

History of the Project

The first irrigation in the Upper Snake area began in the early 1870's.

By 1900 more than half a million acres were being irrigated. Today about 1,300,000 acres are under irrigation, which constitutes one of the most productive irrigated regions of the nation.

To meet the water needs of settlers, the Bureau of Reclamation was called upon to construct a series of reservoirs for the Upper Snake River Valley. The Bureau reservoirs include Lake Walcott on Snake River in Idaho, completed in 1909; Jackson Lake on Snake River in Wyoming, completed in 1916; and American Falls in Idaho, completed in 1927.

With the completion of American Falls Reservoir in 1927, the hazard of irrigation-water shortage was believed to have been removed. Subsequent to 1928, however, during an unprecedented series of dry years, American Falls Reservoir failed to fill. It immediately became apparent that the 433,000 acre-feet of space in

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the reservoir reserved for development of new land would be needed by existing irrigated land. Accordingly, the reserved space was leased to water users on existing projects, and this arrangement has continued ever since. Even use of this reserved reservoir space failed to provide the water needed. As a result, serious crop losses were experienced.

Such serious losses revealed the urgent need for additional storage, such as would be provided by Palisades Reservoir, in order to hold over the excess waters of wet years for use during years of low precipitation and for the elimination of wasteful water-use practices which are prevalent in the area.

Steady growth in population and industries in the project area has resulted in an increased power demand. Local interest in the Palisades Project is very strong. Water-user organizations have oversubscribed for all available space in the Palisades Reservoir. The city of Idaho Falls and the areas served by three REA's, which will receive power from Palisades, will quickly absorb the firm power output of Palisades Powerplant. There is a need for flood protection for lands along the river channel which are affected by recurrent high water.

Purpose

The primary objective of the project is to provide holdover storage during years of average or above-average precipitation for release in ensuing dry years to lands of the Upper Snake River Valley--the area served by diversions from the river above Milner Dam. This holdover storage will be impounded in a 1,400,000 acre-foot-capacity reservoir and will provide supplementary water for some 650,000 acres of irrigated land in that valley. The dam, in addition to providing the needed holdover storage, will control fully all floods similar to those recorded in the past, develop a substantial block of electric power, and provide space for storage of the 135,000 acre-feet of water to be saved annually by shutting off canals in the upper valley during the winter. The water saved during the winter will be stored to the credit of and delivered to the water users who make the savings possible.

Legislative Data

Authorization

The Project was initially authorized in 1941 as the Palisades Dam Project by presentation to the President and the Congress of a report and findings by the Secretary of the Interior on December 9, 1941

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(H. Doc. No. 457, 77th Cong., 1st Sess.), under the provisions of Section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187). That supporting engineering and economic report of the Bureau of Reclamation was the product of investigations begun by the Bureau in 1932 to study means of providing urgently-needed supplemental storage in the Upper Snake River Valley.

A system of levees for flood control purposes, which will serve in conjunction with Palisades Reservoir, was authorized by the act of December 22, 1944 (58 Stat. 902) on the basis of recommendations of the Chief of Engineers set forth in House Document No. 452, 77th Congress, 1st Session.

The report, noted above, stated that the success of the Palisades Reservoir would depend on the conservation of 135,000 acre-feet of water annually being wastefully used as a result of winter diversions, and also on the willingness of the water users to pay for stored water that would be available from the project. The Bureau of the Budget, speaking for the President, approved the project, with the reservation that submission of estimates of appropriations needed for construction be withheld until "local interests have given satisfactory assurance to the Secretary of the Interior that they will eliminate the wasteful use of water in the area to be affected by the project." Although appropriations for the project were made for the Fiscal Years 1945 through 1948, and a contracting authority was granted for the Fiscal Year 1949, no construction contracts were awarded until late in Fiscal Year 1949 because of the conditions specified in the original authorization.

Reauthorization

The project was reauthorized by the Congress in 1950 (Public Law 864, 81st Congress) substantially in accordance with a Supplemental Report approved by the Secretary of the Interior in 1949. Reauthorization was sought because of (1) proposed changes in the operating plan in the interest of flood control, and, in consequence, a substantial increase in the allocation to flood control, (2) an increase in the size of the power installation, and (3) the desirability of reporting to the Congress on the negotiations with the water users concerning winter water-saving agreements.

Evolution of the Project

First settlement and irrigation in the Upper Snake River Valley dates back to the 1870's, when immigrants from Utah settled in the vicinity of Rexburg and Blackfoot, Idaho, and diverted water from the Snake River and its tributaries for irrigation.

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WATER RESOURCES

EXHIBIT 57

Application For Permit To Construct A Reservoir And
Appropriate The Public Waters Of The State Of Idaho
(Application No. R 26214, Permit No. R 670) (July 28, 1939);

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

R-67

~~23-2084~~ 01-2068

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APPLICATION FOR PERMIT

To Construct a Reservoir and Store and Appropriate
The Public Waters of the State of Idaho

Application No. R 26214
Permit No. R 670

1. Name of Applicant: LYNN CRANDALL, WATER MASTER DISTRICT # 36

Postoffice address: Box 697, Idaho Falls County Bonneville State Idaho

I. If applicant is a corporation, give:

(a) Date and place of incorporation: (b) Amount of Capital Stock: $

(c) Amount paid in: $ (d) Names and addresses of directors:

Application is made on behalf of the Snake River water users to expect to contract with the United States for construction of the reservoir and related works.

II. The financial resources of the corporation are:

(a) Cash on hand: $ (b) Treasury Stock: $

(c) Bonds to be issued: $ (d) Other resources:

2. Quantity of water to be stored: 1,400,000 acre feet per annum.

3. Source of water supply is Snake River ~~(Creek) (River) (Spring)~~, a tributary of Columbia River.

4. The outlet of the proposed reservoir is located N.52°W. (bearing) 2400 feet, distant from the 1/4 corner of Section between s 16 & 17, Township 1 S., Range 45 E., B. M. and is in the NW ¼ of NE ¼ of Section 17, Township 1 S., Range 45 E., B. M. County of Bonneville

5. Fill out either (a) or (b).

(a) The reservoir is located in the channel of Snake River ~~(Creek) (River)~~.

(b) The reservoir is to be filled through a feeder canal, the point of diversion for which is located (bearing) feet distant from the corner of Section, Township, Range, B. M., and is in the ¼ of ¼ of Section, Township, Range, B. M.; width at bottom feet, width at top feet, depth of water feet; average grade per mile feet; Capacity cubic feet per second.

6. (a) The area of the high water line of the reservoir is 15,500 acres.

(b) The reservoir capacity is 1,400,000 acre feet.

7. Height of reservoir dam 240 feet, length at top feet, length at bottom feet, size of outlet feet by feet. The dam is to be constructed of materials as follows: Earth dam

(If height will exceed 10 feet, plans must be approved by Department of Reclamation, before beginning construction.)

8. (a) Will water stored in reservoir be diverted to canal or acqueduct, thence to land to be irrigated without commingling with natural flow of (Creek) (River) ? No

(b) Water stored in reservoir will be carried in the channel of Snake River ~~(Creek) (River)~~ a distance of miles to point of diversion located at various downstream points (bearing) feet, distant from the corner of Section, Township, Range, B. M., and in the ¼ of ¼ of Section, Township, Range, B. M.

9. Amount of water claimed from ~~(Creek) (River) (Spring)~~ in addition to that stored in reservoir cubic feet per second.

10. Water is to be used for irrigation, power and domestic purposes.

11. If for mining, milling, power or manufacturing purposes give:

(a) Point of use of water N.50°W. (bearing) 2300 feet, distant from 1/4 Corner of Section between s 16 & 17, Township 1 S., Range 45 E. B. M. and is in the NW ¼ of NE ¼ of Section 17, Township 1 S., Range 45 E., B. M.

(b) Amount of power generated: 55,000 H. P., under 100 to 240 feet head.

(c) Water is to be returned to Snake River ~~(Creek) (River) (Spring)~~ at a point N.50°W. (bearing) 2300 feet distant from the 1.4 corner of Sections between s 16 & 17, Township 1 S., Range 45 E., B. M., in the NW ¼ of NE ¼ of Section 17, Township 1 S., Range 45 E. B. M.

12. Water stored in accordance with this Permit will be carried to place of use through a canal heretofore constructed under the terms of Permit No. , which is hereby referred to and made a part hereof.

13. Kind of diversion works: (Dam, canal, flume, pipe, etc.)

14. Height of diversion dam: feet, length at top feet, length at bottom feet. The dam is to be constructed of materials as follows:

(If height will exceed 10 feet, plans must be approved by Department of Reclamation, before beginning construction.)

15. Size of headgate: Width feet, Height feet.

16. Diversion Canal: Width at bottom feet, width at water line feet, depth of water feet, Dimensions of Flume Diameter of Pipe inches; Length of Conduit miles. Average grade per mile feet.

17. Estimated cost of Works: Storage Works: $ 18,000,000 Diversion Works: $

18. Time required for completion of work Five (5) years.

19. Time required for complete application of water to proposed beneficial use is Fifteen (15) years.

20. The land to be irrigated is described in the following tabulation:

(Give Irrigable acreage in each 40-acre subdivision.)

Twp.	Range	Sec.	NE	NW¼	SW¼					Totals
			N.			SW¼	SE¼	NE¼	N.	
			See Attached Land List							

Total Number of Acres to be Irrigated

Remarks: Land to be irrigated lies within the following townships: T. 5 N., Range 36,37,38,39 & 40 E.; T. 4 N.,Range 36,37, 38,39 & 40 E.; T. 3 N., Range 36,37,38,39 & 40 E.; T. 2 N., Range 36, 37, 38, 39, 43 & 44 E.; T. 1 N.,Range 36, 37, 38, 43 & T. 1 S.,Range 34,35,36,37 & 38 E.; T. 2 S.,Range 33, 34, 35, 36, 37 & 38 E.; T. 3 S., Range 32, 33,34,35 & 36 E.; T. 4 S.,Ra 31,32,33,34,35 & 36 E.; T. 5 S.,Range 11,12,13,14,15,16,17,18,30,31,32,33,34,35 E,; T. 6 S.,Range 13,14,15,18,19,30,31, 32, & 35 E.; T. 7 S.,Range 13-19 incl, 23,24,25,30,31,32,33,38, 39 E.; T. 8 S.,Range 14-26 incl.,30, 36,38,39 & 40 E.; T. 9 S.,R 13-25 incl.,36,37,38 & 39 E.; T. 10 S.,Range 13-25 incl. T. 11 S.,Range 13-25 incl.; T. 12 S. Range 21-24 E.incl.

BE IT KNOWN That the undersigned hereby makes application for permit to construct a reservoir and store and appropriate the public waters of Idaho as herein set forth, and that the enclosed map is hereby made a part of this application.

LYNN CRANDALL Applicant.

By Agent.

Date of first receipt at office of Commissioner of Reclamation 9:00 A.M. July 28, 1939

Returned to applicant for correction August 26, 1939

Corrected application received October 4, 1939

LICENSE ISSUED FOR AF SEC. FT.
LICENSE PAGE NO.

APPROVAL OF COMMISSIONER OF RECLAMATION

The number of this permit is R 670

Recorded in book R 3, page 670 Approved November 20, 1939

This is to certify that I have examined the within application for a permit to construct a reservoir and store and appropriate the public waters of the State of Idaho, and hereby approve the same, subject to the following limitations and conditions:

Bond in the sum of $ 1,000, to be filed on or before January 19, 1940

Work to begin on or before and to continue diligently and uninterruptedly to completion, unless temporarily interrupted by circumstances over which the permit holder has no control.

One fifth of the work above specified to be completed on or before May 20, 1942

The whole of said work to be completed on or before November 20, 1944

Beneficial use of water stored in accordance herewith, to be made on or before November 20, 1954

Witness my hand this 20th day of November, 1939.

JAMES SPOFFORD Commissioner of Reclamation.

13. Kind of diversion works: (Dam, canal, flume, pipe, etc.)

14. Height of diversion dam: feet, length at top feet, length at bottom feet. The dam is to be constructed of materials as follows:

(If height will exceed 10 feet, plans must be approved by Department of Reclamation, before beginning construction.)

15. Size of headgate: Width feet, Height feet.

16. Diversion Canal: Width at bottom feet, width at water line feet, depth of water feet, Dimensions of Flume Diameter of Pipe inches; Length of Conduit miles. Average grade per mile feet.

17. Estimated cost of Works: Storage Works: $ 18,000,000 Diversion Works: $

18. Time required for completion of work Five (5) years.

19. Time required for complete application of water to proposed beneficial use is Fifteen (15) years.

20. The land to be irrigated is described in the following tabulation:

(Give Irrigable acreage in each 40-acre subdivision.)

Twp.	Range	Sec.	NE	NW¼	SW¼					Totals
			N.			SW¼	SE¼	NE¼	N.	
			See Attached Land List							

Total Number of Acres to be Irrigated

Remarks: Land to be irrigated lies within the following townships: T. 5 N., Range 36,37,38,39 & 40 E.; T. 4 N.,Range 36,37, 38,39 & 40 E.; T. 3 N., Range 36,37,38,39 & 40 E.; T. 2 N., Range 36, 37, 38, 39, 43 & 44 E.; T. 1 N.,Range 36, 37, 38, 43 & T. 1 S.,Range 34,35,36,37 & 38 E.; T. 2 S.,Range 33, 34, 35, 36, 37 & 38 E.; T. 3 S., Range 32, 33,34,35 & 36 E.; T. 4 S.,Ra 31,32,33,34,35 & 36 E.; T. 5 S.,Range 11,12,13,14,15,16,17,18,30,31,32,33,34,35 E.; T. 6 S.,Range 13,14,15,18,19,30,31, 32, & 35 E.; T. 7 S.,Range 13-19 incl, 23,24,25,30,31,32,33,38, 39 E.; T. 8 S.,Range 14-26 incl.,30, 36,38,39 & 40 E.; T. 9 S.,R 13-25 incl.,36,37,38 & 39 E.; T. 10 S.,Range 13-25 incl. T. 11 S.,Range 13-25 incl.; T. 12 S. Range 21-24 E.incl.

BE IT KNOWN That the undersigned hereby makes application for permit to construct a reservoir and store and appropriate the public waters of Idaho as herein set forth, and that the enclosed map is hereby made a part of this application.

LYNN CRANDALL Applicant.

By Agent.

Date of first receipt at office of Commissioner of Reclamation 9:00 A.M. July 28, 1939

Returned to applicant for correction August 26, 1939

Corrected application received October 4, 1939

LICENSE ISSUED FOR AF SEC. FT.
LICENSE PAGE NO.

APPROVAL OF COMMISSIONER OF RECLAMATION

The number of this permit is R 670

Recorded in book R 3, page 670 Approved November 20, 1939

This is to certify that I have examined the within application for a permit to construct a reservoir and store and appropriate the public waters of the State of Idaho, and hereby approve the same, subject to the following limitations and conditions:

Bond in the sum of $ 1,000, to be filed on or before January 19, 1940

Work to begin on or before and to continue diligently and uninterruptedly to completion, unless temporarily interrupted by circumstances over which the permit holder has no control.

One fifth of the work above specified to be completed on or before May 20, 1942

The whole of said work to be completed on or before November 20, 1944

Beneficial use of water stored in accordance herewith, to be made on or before November 20, 1954

Witness my hand this 20th day of November, 1939.

JAMES SPOFFORD Commissioner of Reclamation.

EXHIBIT 58

Notice Of Application To Store And Appropriate Water
In Accordance With The Provisions Of Chapter 145,
1935 Session Laws

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

STATE OF IDAHO

DEPARTMENT OF RECLAMATION

NOTICE OF APPLICATION TO STORE AND APPROPRIATE WATER IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 145, 1935 SESSION LAWS.

NOTICE IS HEREBY GIVEN That on the 28th day of July, 1939, Lynn Crandall, Water Master of District No. 36, of Idaho Falls, Bonneville County, Idaho, made application No. 26214 to store and appropriate One Million Four Hundred Thousand (1,400,000) Acre Feet per Annum of the waters of Snake River, a tributary of Columbia River, for irrigation, power and domestic purposes.

That the point of outlet of the proposed reservoir is located N. 52° W. 2400 feet distant from the 1/4 corner between Sections 16 and 17, Township 1 South, Range 45 East, B.M., and is in the NW¼ of NE¼ of Section 17, Township 1 South, Range 45 East, B.M.

That the point of use of said water is located N. 50° W. 2300 feet distant from the 1/4 corner between Sections 16 and 17, Township 1 South, Range 45 East, B.M., and is in the NW¼ of NE¼ of Section 17, Township 1 South, Range 45 East, B.M.

That the water is to be returned to Snake River at a point N. 50° W. 2300 feet distant from the 1/4 corner between Sections 16 and 17, Township 1 South, Range 45 East, B.M., in the NW¼ of NE¼ of Section 17, Township 1 South, Range 45 East, B. M.

That the lands to be irrigated under said application are described as follows, to-wit:

All Sec. 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, 32, 33, 34, 35 & 36, T. 6 N., R. 39 E., B.M.

All Sec. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, N½, SW¼ Sec. 30, W½ Sec. 31, T. 6 N., R. 40 E., B.M.

All Sec. 13, SE¼SW¼, NE¼SE¼, S½SE¼ Sec. 14, S½SE¼ Sec. 22, All Secs. 23, 24, 25, 26 & 27, SW¼NE¼, W½, NW¼SE¼, S½SE¼ Sec. 28, All Sec. 29, 31, 32, 33, 34, 35 & 36, T. 5 N., R. 37 E., B.M.

All Sec. 12 & 13, SW¼, W½SE¼ Sec. 18, All Sec. 19 & 20, S½N½, S½ Sec. 21, SW¼NW¼, NW¼SW¼, S½SW¼, NE¼SE¼, S½SE¼ Sec. 22, NE¼NE¼, S½NE¼, S½NW¼, S½ Sec. 23, All Sec. 24, 25, 26, 27 28, 29, 30, 31, 32, 33, 34, 35 & 36, T. 5 N., R. 38 E., B.M.

All of Township 5 N., Range 39 E., B.M.

All Sec. 6, 7, 18, 19, 29, 30, 31 & 32, W½ Sec. 33, T. 5 N., R. 40 E., B.M.

All Sec. 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, 33, 34, 35 & 36, T. 4 N., R. 37 E., B.M.

All of Township 4 North, Range 38 East, B.M.

All of Township 4 North, Range 39 East, B.M.

All Sec. 4, 5, 6, 7, & 8, W½ Sec. 9, W½ Sec. 16, All Sec. 17, 18, 19, 20 & 21, S½N½, S½ Sec. 22, All SW of river in Sec. 26, All Sec. 27, 28, 29, 30, 31, 32, 33, 34, 35 All SW of river in Sec. 36, T. 4 N., R. 40 E., B.M.

All Sec. 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36, T. 3 N., R. 37 E., B.M.

All of Township 3 North, Range 38 East, B.M.

R-C-7C

Land List Page No.	Map Sheet No.	Legal Description	Map Shows	Land List Shows
2	4	5N-38E	Sec. 1	Ommitted Sec. 1
5	4	Sheet shows nothing in 3N-40E while map shows N½ Sec. 1	All of 2,3,5,6,7	
6	5	1S-37E	All of Twp except 25 & 36	All of Twp except 26 & 36
7	5	Sec.17-2S-37E	Part of NW¼NE¼ & SW¼NE¼	Not shown
7	5	Sec.19-2S-37E	None in SW¼SW¼	20 acres in NW¼SW¼
8	5	3S-36E	Parts of 3,4,7,8 All of 5,6	Not shown
9	6	Sec.10-4S-33E	SE¼SW¼	Not shown
11	8	Sec.8-6S-31E	SE¼SW¼	Not shown
12	8	Sec.13-6S-33E	N½NE¼,SW¼NE¼,NW¼, N½SW¼	NE¼,NW¼,S½SW¼
12	8	Sec.30-6S-33E	All Sec. but W½NW¼	All of Sec.
13	8	Sec.14-7S-30E	SE¼SW¼	Ommitted
14	8	Sec.18-7S-32E	N½NE¼,NE¼NW¼	None
14	8	Sec.19-7S-32E	NE¼NE¼	Ommitted
14	8	Sec.1-8S-30E	E½SE¼	E½NE¼
15	14	Sec.5-6S-13E	SE¼SW¼	Ommitted
16	13	Sec.28-6S-14E	S½SW¼	Ommitted
16	13	Sec.33-6S-14E	N½NW¼	Ommitted
18	13	Sec.35-7S-17E	S½SW¼	S½NW¼
18	10	Sec.21-7S-24E	NE¼SW¼	NW¼SW¼
19	13	Sec.8-8S-14E	Ommitted	SW¼NE¼
22	12	Sec.21-8S-21E	S½SE¼	Ommitted
22	10	Sec.1-8S-23E	All of Sec.	All of Sec. except SW¼NE¼,N½SE¼
23	13	Sec.6-9S-15E	N½NW¼	Ommitted
24	13	9S-16E	Parts of Sec's. 22,23,24	Ommitted
24	13	Sec.12-9S-17E	SE¼NW¼	Ommitted
24	12	Sec.8-9S-19E	NW¼NW¼	NE¼NW¼
24	12	Sec.30-9S-19E	S½SW¼	S½NW¼

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Land List Page No.	Map Sheet No.	Legal Description	Map Shows	Land List Shows
25	12	Sec.30-9S-20E	SE¼SW¼	SW¼SE¼
26	12	Sec.15-10S-19E	NW¼NE¼	SE¼NE¼
26	12	Sec.5-10S-20E	SW¼NW¼	SE¼NW¼
27	12	Sec.25-10S-20E	Not on Map	S½SE¼
27	12	Sec.30-10S-20E	NW¼SE¼	SW¼SE¼
27	12	Sec.31-10S-20E	Not on Map	SW¼SW¼

R.6.D

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 59

Permit No. R-670 – Certificate Of Completion Of Works (Apr. 20, 1962)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

Permit No. R-670

CERTIFICATE OF COMPLETION OF WORKS

TO ALL WHOM IT MAY CONCERN:

This is to certify that LYNN CRANDALL - Assignee THE UNITED STATES OF AMERICA Acting through the BUREAU OF RECLAMATION of Boise, Idaho, County of Ada and State of Idaho, the holder of Permit No. R-670, issued upon Application No. R-26214, bearing date of priority of July 28, 1939 authorizing the construction of a reservoir, with the right to appropriate and store 1,400,000 acre feet per annum of the waters of Snake River a tributary of Columbia River, in the County of Bonneville, State of Idaho, for irrigation, power and domestic purposes, has fully complied with the provisions of the laws of the State of Idaho relating to the proof of completion of the works set out and described in said Permit; that said works include a dam and reservoir adequate for the storage of 1,400,000 acre feet of water per annum, with adequate diversion works and conduit to the reservoir, and a conduit capable of conducting said water to the place of intended use; that the point of outlet of said reservoir is located in the NW¼ of the NE¼ of Section 17, Township 1 S., Range 45 E., and that the place of use, or the lands proposed to be irrigated by the use of said water, are described as follows, to-wit: Approximately 1,040,000 acres under various canals diverting from South Fork Snake River and Snake River between the reservoir and the Milner Dam.

Witness my hand this 20th day of April, 1962.

/s/ CARL E. TAPPAN
Assistant State Reclamation Engineer

Proof of Completion of Works Made: March 17, 1961

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FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 60

License Of Water Right (License No. R-670/01-2068) (Mar. 19, 1973)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

DUPLICATE OF ORIGINAL

State of Idaho

Department of Water Administration

LICENSE OF WATER RIGHT

License of Water Right No. R-670/01-2068 Priority July 28, 1939 Amount *1,400,000 AF

THIS IS TO CERTIFY, that the U.S. BUREAU OF RECLAMATION

of Boise, Idaho, has complied with the terms and conditions of Permit No. R-670/01-2068 issued pursuant to Application for Permit dated July 28, 1939, and has submitted proof to the Department of Water Administration on November 16, 1965, that it has applied water to a beneficial use; an examination by the Department indicates that the works have a capacity of 1,400,000 AF, and that a right to the use of water from the Snake River tributary of the Columbia River, is hereby confirmed in the following amounts:

Amount 1,200,000af for ** Storage for Irrigation from Jan. 1 to Dec. 31 (both dates inclusive)

Amount _____ for _____ from _____ to _____ (both dates inclusive)

Amount 1,200,000af for Power Generation from Jan. 1 to Dec. 31 (both dates inclusive)

Subject, however, to the condition that no more than *1,400,000 AF of water be ~~diverted~~ stored at any one time, said waters to be diverted within the NE¼ of Section 17, Twp. 1 South, Rge. 45 East, B.M. in the county of Bonneville, and that the amount of water so ~~diverted~~ stored and to which such right is entitled and confirmed is for the purposes aforesaid and is limited to the amount which can actually be beneficially used and shall not exceed 1,200,000 acre feet per year ~~or acre feet per acre~~.

*1,400,000 AF includes 1,200,000 AF of active storage and 200,000 AF of inactive or dead storage.

Description and location of place of use:

TWP.	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
			(Palisades Reservoir)																
			1,038,998 acres within the service area of the																
			organizations listed in Exhibit A.																

Total number of acres irrigated _____

** The use of water under this license, when combined with water diverted under other water rights held by the organizations listed in Exhibit A, shall not exceed that required for the consumptive requirements of the crops irrigated plus necessary and reasonable conveyance losses.

The right to the use of the water hereby confirmed is restricted and appurtenant to the lands or place of use herein described, as provided by the laws of Idaho.

Witness the seal and signature of the Director, affixed at Boise, Idaho, this 19th day of March, 19 73.

Director

01B 2068

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FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 61

Letter from United States Bureau of Reclamation Regional Director R. Newell to John E. Kelley, Chairman, Snake River Committee of Nine (Dec. 7, 1948)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064, 01-02064A, 01-02064B, 01-02064C, 01-02064D, 01-02064E, 01-02064F, 01-02064L, 01-10042, 01-10042A, 01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068, 01-02068D, 01-02068E, 01-02068F, 01-02068M, 01-02068Y, 01-10043, 01-10043A, 01-10043E, 01-10191, and 01-10389

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Region 1
P. O. Box 937 - Boise, Idaho

December 7, 1948

Mr. John E. Kelley, Chairman
Snake River Committee of Nine
Shelley, Idaho

Dear Mr. Kelley:

At the meeting of the Committee of Nine, myself, and others of my staff in Idaho Falls on December 23, 1947, tentative agreement was reached on some major aspects of the American Falls-Palisades reservoirs water problems. Since that meeting, modifications and additions to those proposals have been suggested by various interested parties. In the circumstances, it seems desirable that there be now a restatement in one document of all the essential conditions and provisions that must be agreed to in principle by the interested water users and the United States, and of the actions that must be taken in order to clear Palisades Dam for major construction activities. Such a document may serve also to bring to a head some as yet unsettled aspects of these water problems.

The conditions and provisions in question fall into two major categories:

I. There are, first, those with respect to the saving of winter water, the definition and redefinition of the various storage rights, existing and to be acquired, and some aspects of the operation of Palisades and related reservoirs.

II. The second category covers the matters as to disposition of the reserved American Falls space and the terms concerning the purchase of American Falls and Palisades space.

I

In the first category the essential provisions, in principle, are these:

1. Winter water savings resulting from the elimination of winter diversions in the upper valley (above American Falls Dam) to the amount of 135,000 acre-feet as an

R-67(

annual average shall be assured contractually, the savings to be effected through the stopping of winter diversions for a total of five months out of the period from November 1 through April 30 of each winter season. The savings will be credited annually to Palisades Reservoir with priority over the American Falls Reservoir right, and will be allotted to the Palisades space of contracting upper valley canal operators in the proportion that the acreage irrigated under each operator's canal bears to the total acreage irrigated under canals governed by winter savings contracts. The amount to be credited in any year to each contractor will be limited to the amount required, with holdover, to fill the Palisades space of that contractor.

2. The North Side Canal Company shall be recognized as having the right to divert at Milner Dam for domestic and livestock uses not to exceed 126,000 acre-feet during the winter months of November to March, inclusive, of each year. This limitation will operate substantially as follows:

If, taking account of all storable water whether stored or not, Palisades and American Falls reservoirs fail to fill during any storing season (November through March), any water diverted by the North Side Canal Company during that storing season in excess of 126,000 acre-feet (but not to exceed the amount of deficiency in fill) will be charged as of the end of the storing season against the Company's allotment of American Falls storage.

Beginning with the irrigation season immediately following the first storing season during which the North Side Canal Company eliminates all winter diversions, the Company shall have the right to store each year in Palisades space, or in American Falls space to the extent that such will not be detrimental to other American Falls storage rights, an amount of water equivalent to that which it could have diverted as winter water without charging against storage under the preceding formula, this storage right to have the same priority as rights of the upper valley users as defined in 1 above.

A similar storage right in the amount of 150,000 acre-feet shall be available to the South Side Twin Falls Canal Company beginning with the first irrigation season immediately following the storing season in which that Company eliminates completely its winter diversions from Snake River.

R-6

3. There shall be either:

(a) A permanent exchange of rights in Jackson Lake space assigned to the Minidoka Project for rights in the same amount of space in American Falls Reservoir held or to be held by upper valley users, with provisions to this effect:

> In any year in which the allotment of seasonal storage in the American Falls Reservoir space assigned to the Minidoka Project as the result of such a transfer (325,810 acre-feet of space), plus any carryover in that space, is not sufficient to fill that space completely and it is found that the per cent of fill from seasonal storage of Jackson Lake bottom space exchanged for American Falls space by upper valley canals is greater than at American Falls, the difference between the two will be credited to the Minidoka Project's 325,810 acre-feet of American Falls space and charged to the Jackson Lake bottom space exchanged for American Falls space by upper valley canals, but not in an amount exceeding that required to fill that American Falls space;

or

(b) A redefinition of rights in the top space in Jackson Lake so as to accord to that space the right to hold over from one irrigation season to the next any Jackson Lake water credited to top space and not used, the total storage credited to top space, however, never to exceed the top space available.

Under (a), the amount of the outstanding construction cost obligation as of the date the exchange is effected and thereafter and the parties responsible therefor shall be determined as though no exchange had been made, but the exchange will be conditioned on a redefining of Jackson Lake space so as to provide like holdover privileges to all parties having rights therein. And in any redefinition of Jackson Lake rights there will be recognized the right of the United States, after consultation with the water users, to lower Jackson Lake each fall (but not beyond the point which can be refilled the following spring) in order to avoid damage to the dam during winter weather.

R-6-7C

4. To the extent of space in Palisades Reservoir contracted for by lower valley users, there shall be, so far as possible, provisions for (a) a permanent transfer of that space and priority to American Falls Reservoir, and, correspondingly, the transfer from American Falls to Palisades of a like amount of American Falls space, with its priority, in which contract rights are held by upper valley users; and (b) such other transfers of water between the two reservoirs as can be made without detriment to any American Falls storage rights.

5. All who contract for either American Falls or Palisades space shall agree that, to permit greater conservation of water, storage water accruing to American Falls, Palisades, or Jackson Lake reservoirs may be held temporarily in unoccupied space in and may be exchanged among any of these reservoirs, but such exchange or temporary retention of water in other reservoirs shall not deprive any contractor of any water accruing to its storage rights. This privilege shall extend to the transfer of Jackson Lake water to American Falls during the storing season for the purpose of maintaining a minimum firm power production at Palisades, to the extent that this can be done without loss to contractors having rights in Jackson Lake.

6. Because Palisades Dam, a multiple-purpose project, has as one important function the control of floods, it is necessary that its operation for that purpose be in accord with rules and regulations to be laid down by the Secretary of the Army in accordance with the provisions of section 7 of the act of December 22, 1944 (58 Stat. 890). Agreement has been reached between the Department of the Interior and the Department of the Army as to the basic operating plan so far as flood control operations are concerned. All contracts for Palisades space will necessarily be made subject to that plan and the implementing regulations issued under section 7 of the 1944 Flood Control Act. There is enclosed a statement of that operating plan—a plan that was worked out most carefully by the Bureau of Reclamation and the Corps of Engineers with the object of obtaining the maximum amount of flood control benefits and nonreimbursable cost allocations, while permitting the making of the use of all of the space in Palisades for irrigation. Appropriate provisions for the equitable proration of shortages, if any, resulting from the failure of Palisades Reservoir to fill as the result of operations under that plan will be included in contracts for Palisades space.

R-6

The priority for special storage rights in Palisades Reservoir, in connection with the winter water savings program, raises a water-right problem that needs consideration. This and some other water-right problems are proposed to be made the subject of special discussion with all interested water users at a later date.

II

In the second category the essential provisions, in principle, are these:

1. Of the 433,593 acre-feet of American Falls reserved space, 315,000 acre-feet will be made available under contract to water users who have heretofore leased this space; 71,000 acre-feet will be made available for the Michaud Flats area; and 47,593 acre-feet for the North Side Pumping Division of the Minidoka Project.

2. As to price and terms of repayment:—

American Falls space will be made available at its cost less that portion of the rentals heretofore realized from the entire reserved space which the Secretary of the Interior finds to be properly accounted for as return of investment. This portion of the rentals will be distributed ratably, as nearly as practicable and equitable, between the total of the space to be sold to prior lessees (315,000 acre-feet) and the total of the space to be allocated to the North Side Pumping Division (47,593 acre-feet). In determining American Falls costs, account will be taken of, among other things, costs heretofore allocated to power if it is finally determined by the Secretary that power is not to be developed at American Falls Dam.

The price tentatively set for Palisades space is $7.75 per acre-foot. This amount is considerably less than the estimated costs properly allocable to irrigation. The actual costs allocable to irrigation are dependent, of course, on what actual construction costs are and on action by the Congress recognizing allocations of costs on a nonreimbursable basis to purposes not heretofore recognized by the Congress with respect to this project (recreation and fish and wildlife benefits) and on the proposed increase in allocations by reason of increased flood control benefits. The difference between irrigation costs and the amount to be repaid, it is proposed, will be met from power revenues, on the assumption that the United States can build the project for substantially the present estimate of cost.

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Construction costs to be assumed by water users will be repayable without interest over a period of not to exceed 40 years, these terms and other repayment provisions being those provided principally by the Reclamation Project Act of 1939 (53 Stat. 1187).

3. No solution has yet been reached as to the difficult problem arising out of the interference with winter power production at Minidoka Dam that will result when, and if, winter diversions for the North and South Side Twin Falls tracts are eliminated and that water is stored at American Falls or Palisades, but we are proposing to proceed now without reaching a solution. The solution ultimately to be reached, however, will require recognition by those having rights to American Falls or Palisades space that some part of the costs associated with winter water savings and the operation of an equitable settlement of the related power problem at Minidoka Dam may properly be chargeable to the water users benefiting from winter water savings.

4. Repayment contracts for American Falls and Palisades will be entered into directly with various districts and, with possible exceptions, canal companies. It will not be necessary ordinarily to organize reservoir districts covering several different canal companies as was the case with American Falls Reservoir. It will not be the policy of the United States, however, to enter into contracts with individual landowners desiring to contract for space in either reservoir.

5. The Federal Reclamation Laws provide that as a condition to receiving water from a Federal reclamation project the owners of excess land (160 irrigable acres for a single person and 320 acres for a man and wife are the maximum permitted holdings) shall agree to sell their excess lands for their appraised value, and that water shall not be delivered to land held in excess ownership so long as the construction obligation owed to the United States and apportionable to that land remains unpaid. It is the policy of the United States, also, with respect to nonexcess new land, to reduce speculation in land by controlling its resale price to a limited extent through so-called incremental value contracts. These provisions will be applicable to lands to be served by American Falls and Palisades space. They will, of course, have special significance with respect to the Michaud Flats area and the North Side Pumping Division.

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The repayment contracts will recognize the right of companies and districts to resell space under contract in either reservoir or to rent such space from time to time, but only with the approval of the United States and only on provisions such as will preclude the companies or districts from realizing a profit either from the resale or rental of water.

Proceeding with the main contracts for construction of Palisades Dam is, as the Bureau now sees it, contingent on having the various conditions and provisions assured by contracts with all the necessary water users. The execution of such contracts is, however, contingent on the enactment of legislation by the Congress to cover the disposal of American Falls reserved space and the recognition of additional purposes to be served by Palisades Dam as the basis of additional nonreimbursable allocations. It is the Bureau's plan also to cover by such legislation the authorization of the North Side Pumping Division and possibly the Michaud development. However, depending on procuring the requisite advance assurances, it is now planned to proceed with some preliminary construction contracts early in February 1949.

Both in order to make the preliminary start on construction and as a basis for drafting and presenting to the Congress the necessary legislation, the Bureau wishes to obtain immediately, by means of resolutions from the governing boards of the various companies and districts, acceptance by the appropriate companies and districts in principle of the conditions and provisions stated above.

Acceptance of point 1, category I, should be indicated by substantially all the companies and districts operating canals in the upper valley. There must be assured as a minimum, through curtailment of winter diversions, an average annual savings of 135,000 acre-feet of water.

Acceptance of point 2, category I, should be indicated by the North Side Canal Company.

In connection with point 3, category I, it is our hope that all parties now having storage rights in Jackson Lake will indicate acceptance, but for our immediate purpose it will be enough to have acceptance by the top right and upper valley contractors, it being understood that the privilege of contracting for Palisades space or for additional American Falls space will be conditioned on acceptance of this point.

Acceptance of point 4, category I, should be indicated by all upper valley users having or expecting to contract for rights in American Falls Reservoir, and lower valley users expecting to contract for Palisades space.

Acceptance in principle should be indicated as to points 5 and 6, category I, and all points of category II, by all companies or districts expecting to contract for American Falls or Palisades space. In addition, there should be, with respect to American Falls space, an indication of concurrence in the apportionment of the 315,000 acre-feet of American Falls space as

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shown in Mr. Crandall's letter to me dated March 23, 1948. Redistribution of that amount will presumably be the subject of a further recommendation by your committee if any of the prospective contractors fail to indicate the intention to proceed on the basis of the conditions and provisions herein stated. Also, we wish to have a current statement by each company and district of the amount of Palisades space it intends to contract for on the basis above set out.

Sincerely yours,

R S Marcuse

Regional Director

Enclosure

RECEIVED
FEB 22 2012
DEPARTMENT OF
WATER RESOURCES

EXHIBIT 62

"Draft - Palisades Project – Operating Plan for Palisades Reservoir"
(Dec. 7, 1948)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Operating Plan Referred to in Point [redacted] of Category I of Mr. Newell's Letter of December 7, 1948, to Mr. John E. Kelley.

D R A F T

Palisades Project
Operating Plan for Palisades Reservoir

The Bureau of Reclamation plans to construct and operate Palisades Reservoir for the optimum multiple-purpose use of the entire storage of 1,400,000 acre-feet. To attain this objective, the storage below elevation 5,497 feet mean sea level, approximating 200,000 acre-feet, will be reserved for dead storage and allocated exclusively to the production of hydroelectric power and the maintenance of a permanent pool for the preservation and propagation of fish and wildlife. The remainder of the storage capacity in the amount of 1,200,000 acre-feet will be operated in the joint interests of irrigation and flood control governed by the best available run-off forecasts.

The Bureau of Reclamation will forecast from time to time during the period from February 1 to July 31 of each year, on the basis of precipitation, temperature, snow survey and run-off data, the volume of run-off that may be expected in the drainage area tributary to the Snake River above Heise, Idaho. To the extent that such services can be arranged for by cooperative agreements, the Bureau of Reclamation will make the forecasts hereunder after consultation with the Reclamation Engineer of the State of Idaho or his authorized representative, and the Chief of Engineers or his authorized representative. To facilitate the forecasting of run-off the Bureau of Reclamation will expand the existing hydrologic network and will establish and operate continuously a system for the efficient assembling and analyzing of the basic data. Until such time as a better method of forecasting be devised, the forecasts will be based upon

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estimates of area-elevation weighted snow water content as determined from periodic snow surveys on or about February 1, March 1, April 1, and May 1, and upon precipitation for September of the preceding year. A sample curve of the correlation between weighted snow water content on April 1 of a given year plus precipitation of the preceding September and the resultant run-off from April 1 to July 31, inclusive, of the year in question, is shown on Plate II.

To the end of accomplishing the optimum multiple-use of the reservoir, the Bureau of Reclamation, beginning with the first year the reservoir is put into operation, will operate the reservoir on the basis of the forecasted run-off as nearly as practicable in accordance with the following plan:

1. For the purpose of rules and regulations to be prescribed by the Secretary of the Army under section 7 of the Flood Control Act of 1944 (58 Stat. 887, 890) the storage space allocated to flood control is defined as follows:

> It is the reservoir space which, using the governing forecast of flood run-off for the year, according to the curves shown on Plate I is required to the end of controlling the forecasted flood volume from the time in that year that reservoir inflow first exceeds 20,000 second-feet through the succeeding July 31 by releases from the reservoir during that period such that the flow at the Heise gage will not exceed 20,000 second-feet, in so far as this control can be accomplished with a reservoir capacity not exceeding 1,200,000

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acre-feet. The governing forecast of flood volume for each year is the forecast made as of the day when reservoir inflow in that year first exceeds 20,000 second-feet.

The parameters shown on Plate I, empirically derived from floods of record, are enveloping curves of the storage requirements for various volumes of total forecast run-off from any given date to July 31. The reservoir capacity required to control the flood to a discharge of 20,000 second-feet (or less) below the dam is indicated by the ordinate of the parameter corresponding to the forecasted run-off on the date when the inflow to the reservoir exceeds 20,000 second-feet.

2. During the period of each year from the date of the first forecast about February 1 to the date of making the governing forecast for that year (approximately the middle of May) herein designated as the evacuation period, the reservoir will be operated in such a manner that the required reservoir level as determined by the parameters on Plate I at the time inflow to the reservoir exceeds 20,000 second-feet can be attained with minimum practicable rates and fluctuations of discharge. The rate of discharge during the evacuation period would be determined as follows: The reservoir level required on or about May 15 (the date on which inflows normally may be expected to exceed 20,000 second-feet) would be estimated by use of the parameters on Plate I and a May 15 forecast would be derived by deducting probable minimum inflows for the intervening period

R-67C

from the date of periodic forecasts beginning on February 1. The reservoir levels thus estimated would comprise tentative allocations of flood control space at which to aim the evacuation procedure. The rate of discharge then would be selected as that required to release the probable maximum inflow for the period between date of forecast and May 15 plus the evacuation necessary to attain the required reservoir level indicated by the latest tentative allocation.

3. From the date of the governing forecast each year through July 31 of that year herein designated the filling period, the reservoir shall be operated in such a manner that the reservoir content shown on the chart (Plate I) will be maintained but not be exceeded except when storage above those levels is required to limit the flows to 20,000 second-feet at Heise. When the forecasted run-off indicates a required storage capacity in excess of the total active storage capacity of the reservoir, releases in excess of 20,000 second-feet will be made as required but at rates not to exceed 30,000 second-feet, except as indicated in paragraph 4 below.

4. Whenever the pool shall have risen above elevation 5,620, the full reservoir level, due to an extraordinary excess of inflow over the maximum releases permitted under paragraph 1 or is expected to rise above that level within the next 48 hours, releases may be increased temporarily above those previously specified, so as to minimize the peak rate of release and to draw the reservoir down to the full reservoir level as rapidly

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as possible. However, the maximum rate of such extraordinary release shall not exceed the estimated maximum mean daily rate of inflow to the reservoir during the period when the reservoir level is above elevation 5,620.

5. All reservoir releases made as herein provided are subject to the condition that no releases shall be made at rates or in a manner that would be inconsistent with whatever operating rules and regulations are laid down by the Chief Engineer of the Bureau of Reclamation for the purpose of protecting the dam and reservoir from damage.

If operating experience indicates the desirability therefor, the Secretary of the Interior may, after consultation with the Secretary of the Army, modify from time to time the operating plan herein described with respect to the amount of space allocated to flood control each year on the basis of advance forecasts as to run-off, but no modification which would result in a substantial change in the control of floods herein stated to be the objective of the original operating plan shall be made without the concurrence of the Secretary of the Army. Revisions of the rules and regulations prescribed under the Flood Control Act of 1944 will be made by the Secretary of the Army if, in his judgment, these are requisite because of such modifications in flood control space allocations. Modifications in the operating plan not requiring the concurrence of the Secretary of the Army shall not be the occasion for a revision of the conclusions originally reached as to the flood control benefits to be realized from the original operating plan or of the formula adopted for the allocation of construction costs to flood control purposes.

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Proposed addition to the provisions of 41-204, Laws of Idaho

In connection with irrigation works being constructed or to be constructed under the Federal Reclamation Laws, these being the Act of June 17, 1902 (38 Stat. 388), as it has been heretofore and may hereafter be amended or supplemented, the State Reclamation Engineer may extend the time for completion of the works for such additional period or periods of time as he may deem necessary upon application supported by a showing that such additional time is required by reason of the status of plans, authorization, construction fund appropriations, state of construction, or any arrangements which the Secretary of the Interior or his authorized representative have found to be requisite to completion of the construction of such works. The extension of time for completion of works under this provision shall automatically extend the time for completion of the one-fifth required to be done in half the time, and for making proof of application of water to beneficial use.

Stuart [illegible]

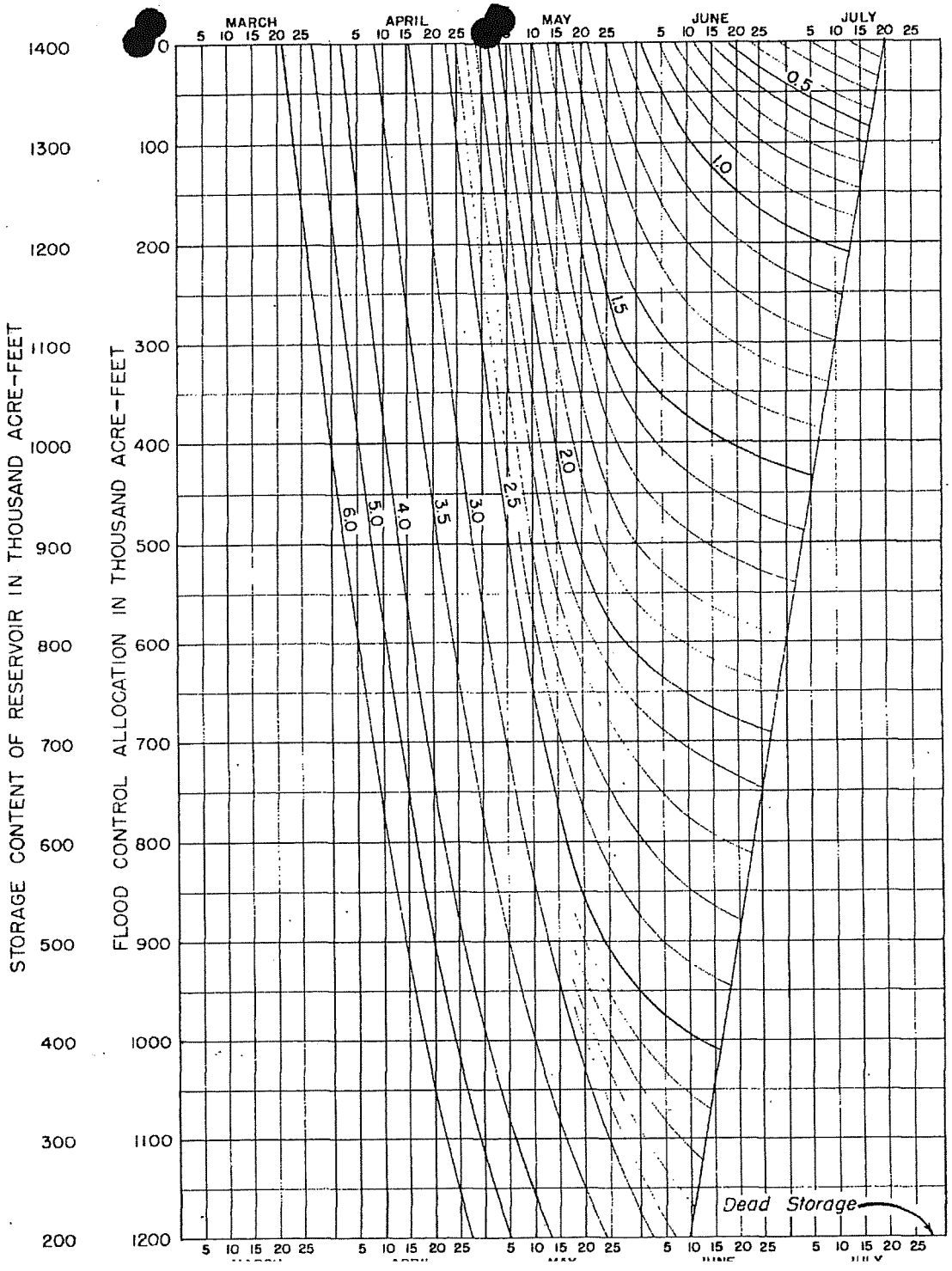
R-670

Proposed addition to the provisions of 41-204, Laws of Idaho

In connection with irrigation works being constructed or to be constructed under the Federal Reclamation Laws, these being the Act of June 17, 1902 (30 Stat. 388), as it has been heretofore and may hereafter be amended or supplemented, the State Reclamation Engineer may extend the time for completion of the works for such additional period or periods of time as he may deem necessary upon application supported by a showing that such additional time is required by reason of the status of plans, authorization, construction fund appropriations, state of construction, or any arrangements which the Secretary of the Interior or his authorized representative have found to be requisite to completion of the construction of such works. The extension of time for completion of works under this provision shall automatically extend the time for completion of the one-fifth required to be done in half the time, and for making proof of application of water to beneficial use.

R-4-72

PLATE I



NOTES:

1. Parameters are anticipated flood run-off of Snake River at Heise in millions of acre-feet for the remainder of the season from any given date to July 31. The anticipated run-off is the forecasted flow at Heise less the storage capacity available in Jackson Lake. A minimum of two hundred thousand acre-feet of storage space in Jackson Lake will be held vacant until May 1 of every year unless the forecast indicates that storage should begin earlier to insure filling that space.

2. Storage reservation based upon a release which would give a maximum regulated flow at Heise of twenty thousand second-feet.

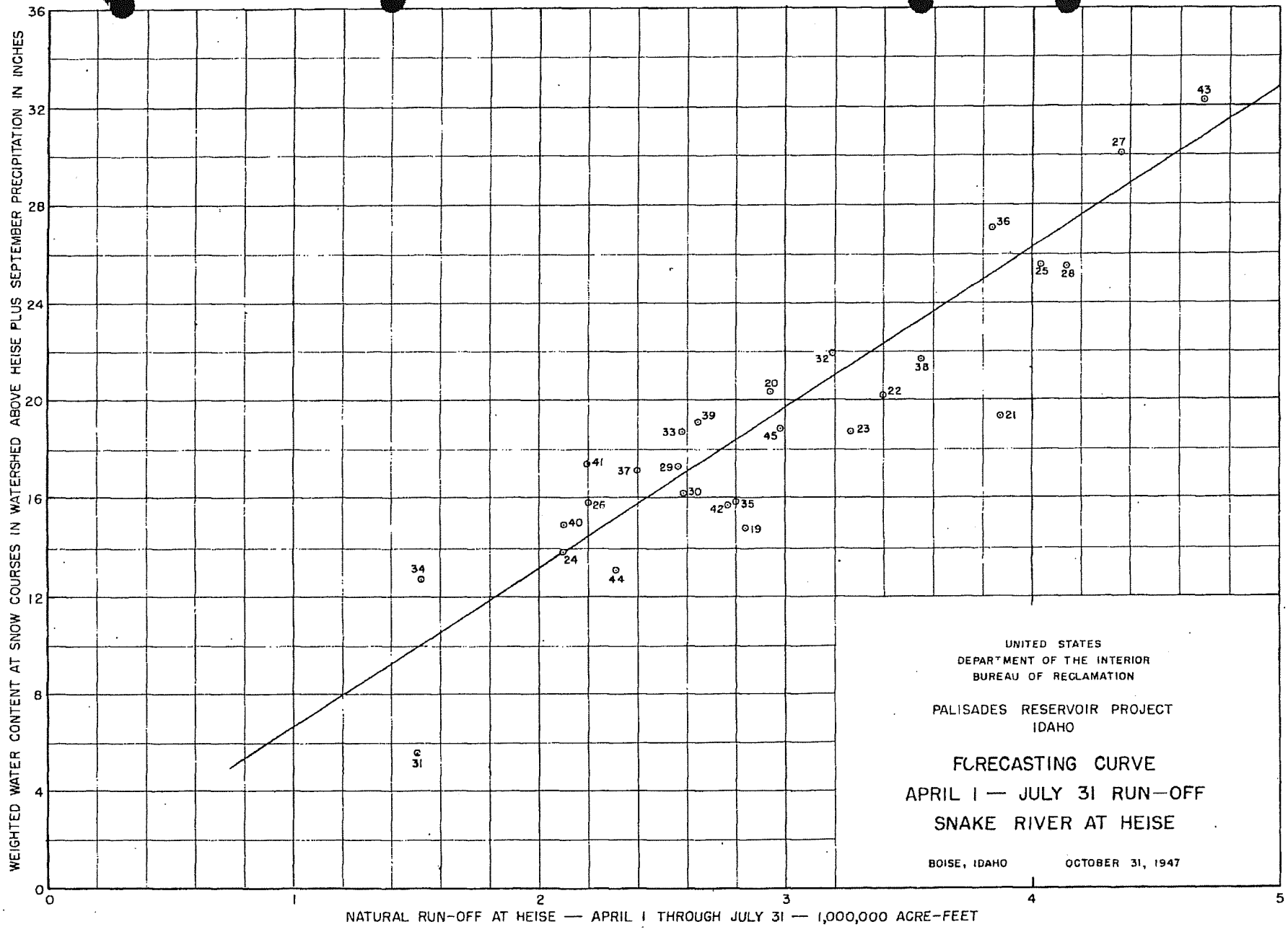
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

PALISADES RESERVOIR PROJECT
IDAHO

ALLOCATION OF FLOOD CONTROL SPACE

BOISE, IDAHO OCTOBER 31, 1947

PLATE II



R-670

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DEPARTMENT OF
WATER RESOURCES

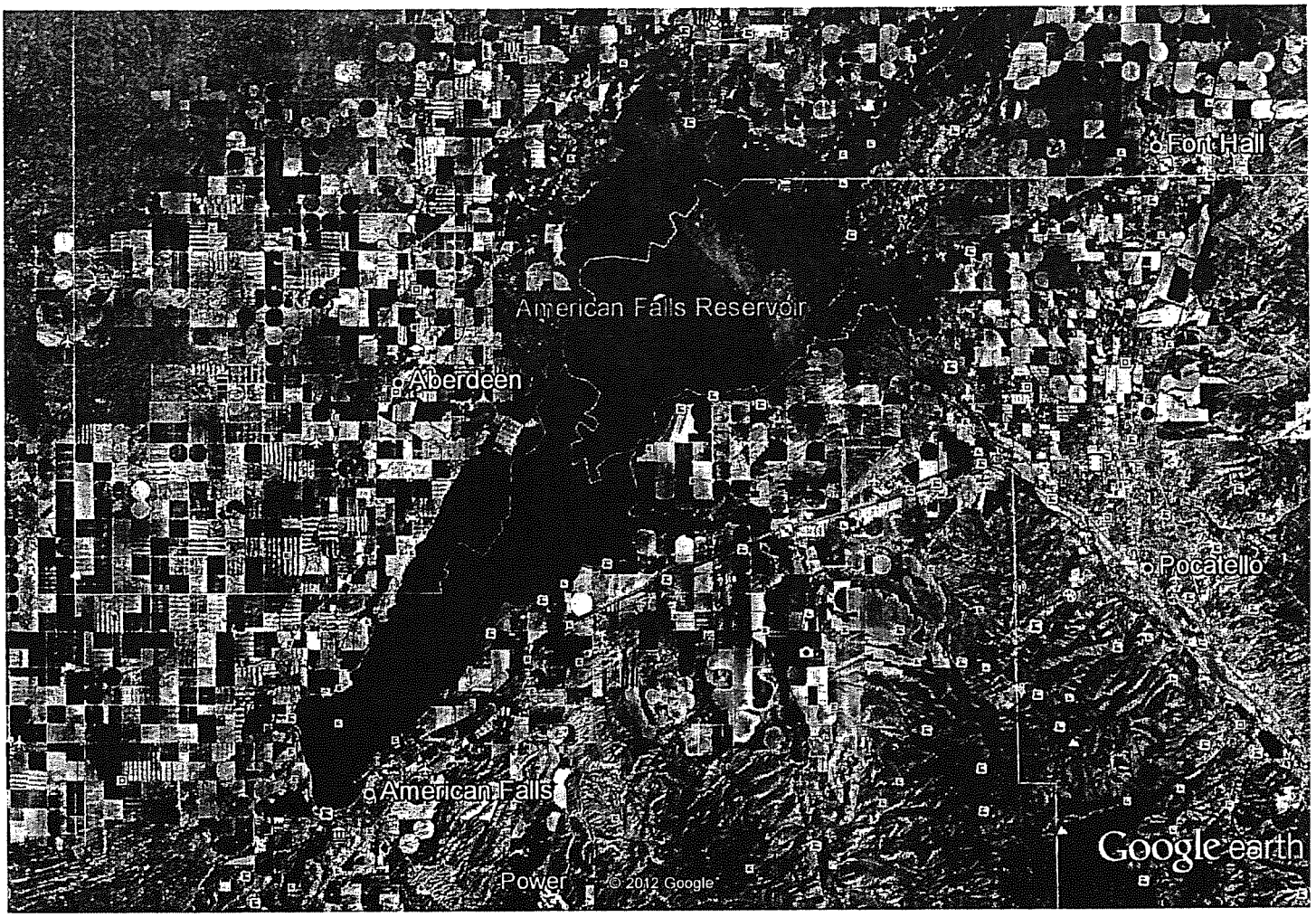
EXHIBIT 63

Printouts of Google Earth® images of
the American Falls dam and reservoir, Idaho

Affidavit of Michael C. Orr – Feb. 21, 2012

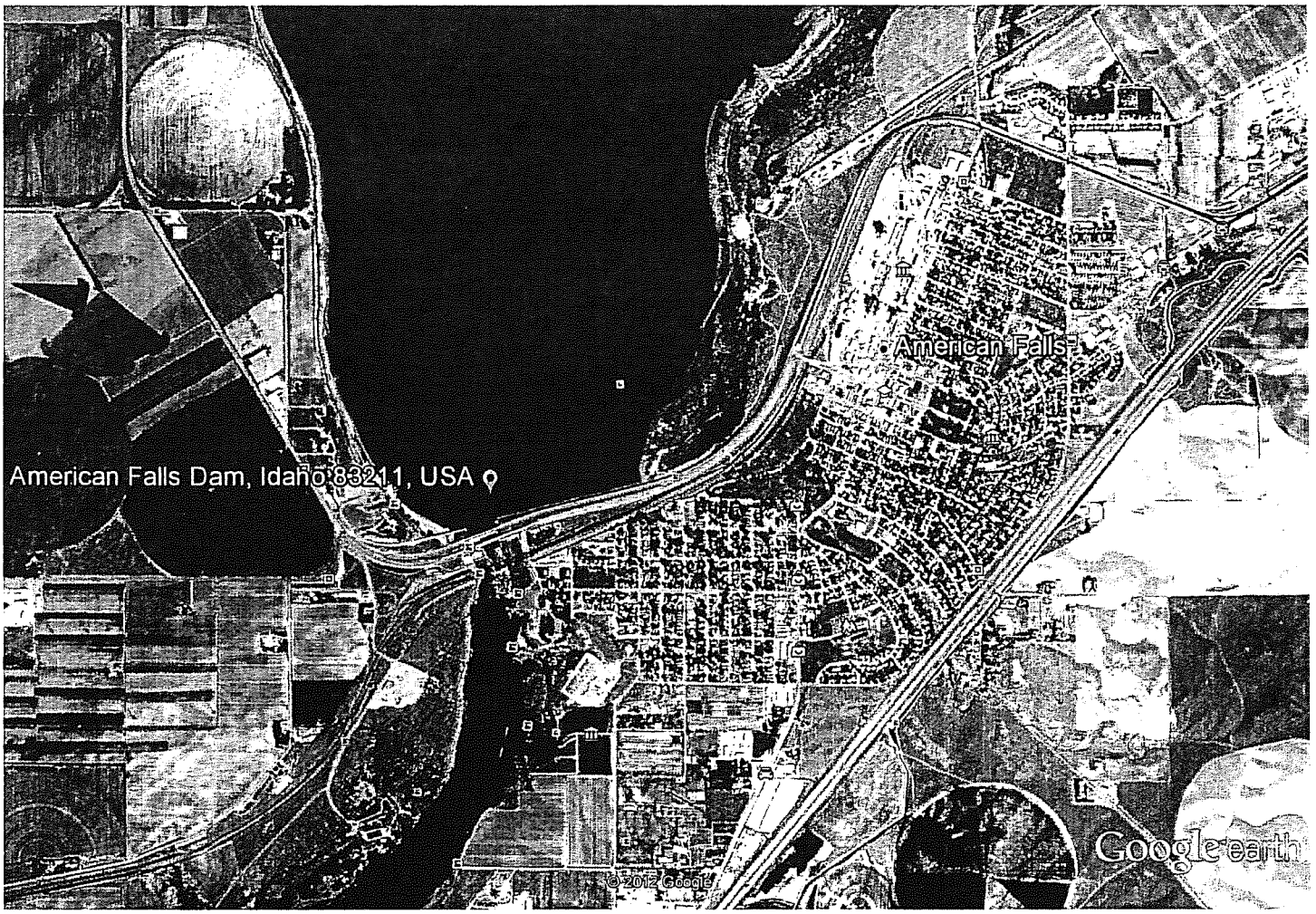
American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389



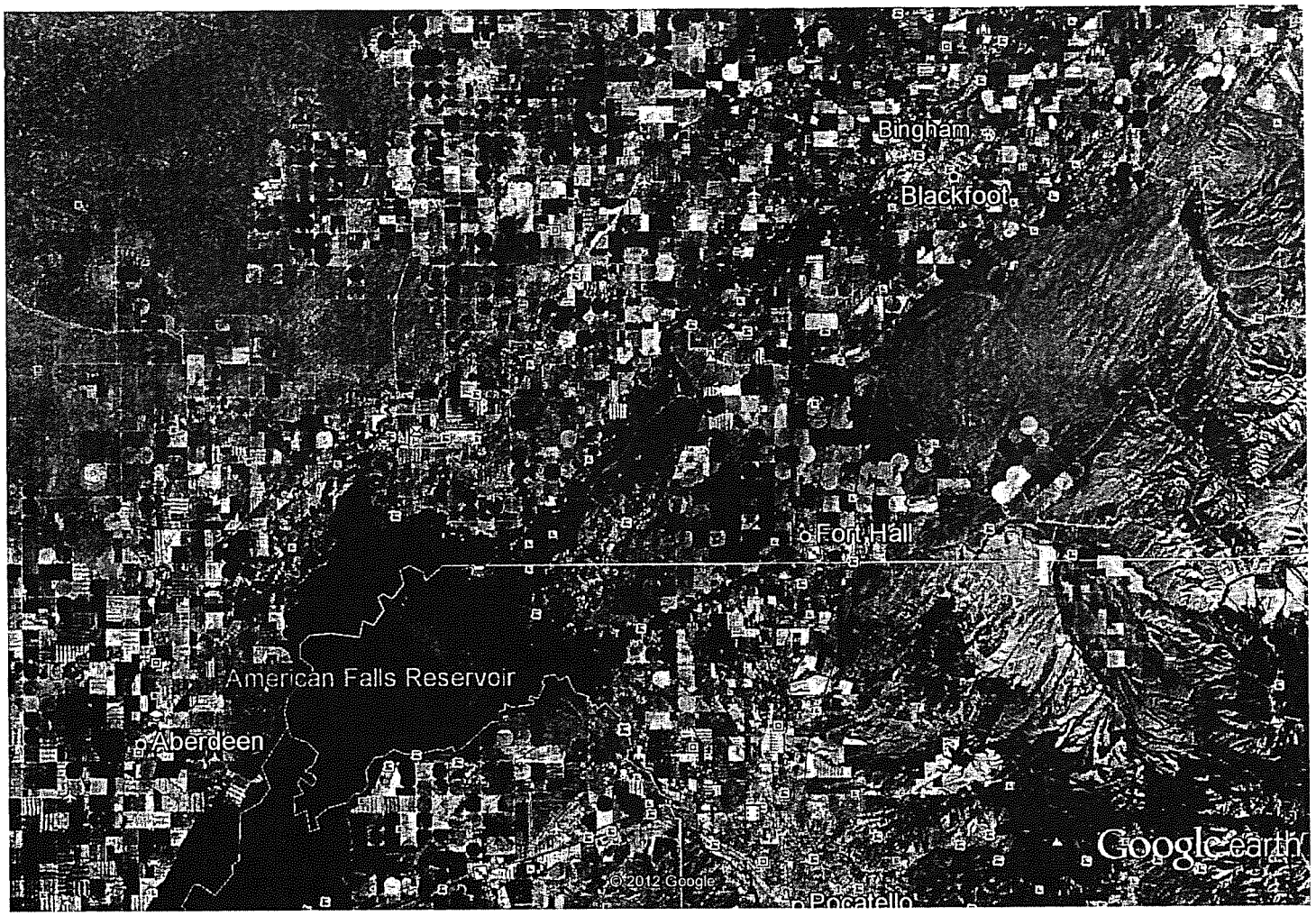
Google earth

miles 10
km 20



Google earth

miles 1
km 2



Google earth

miles 20
km 30

RECEIVED
FEB 2 2 2012
DEPARTMENT OF
WATER RESOURCES

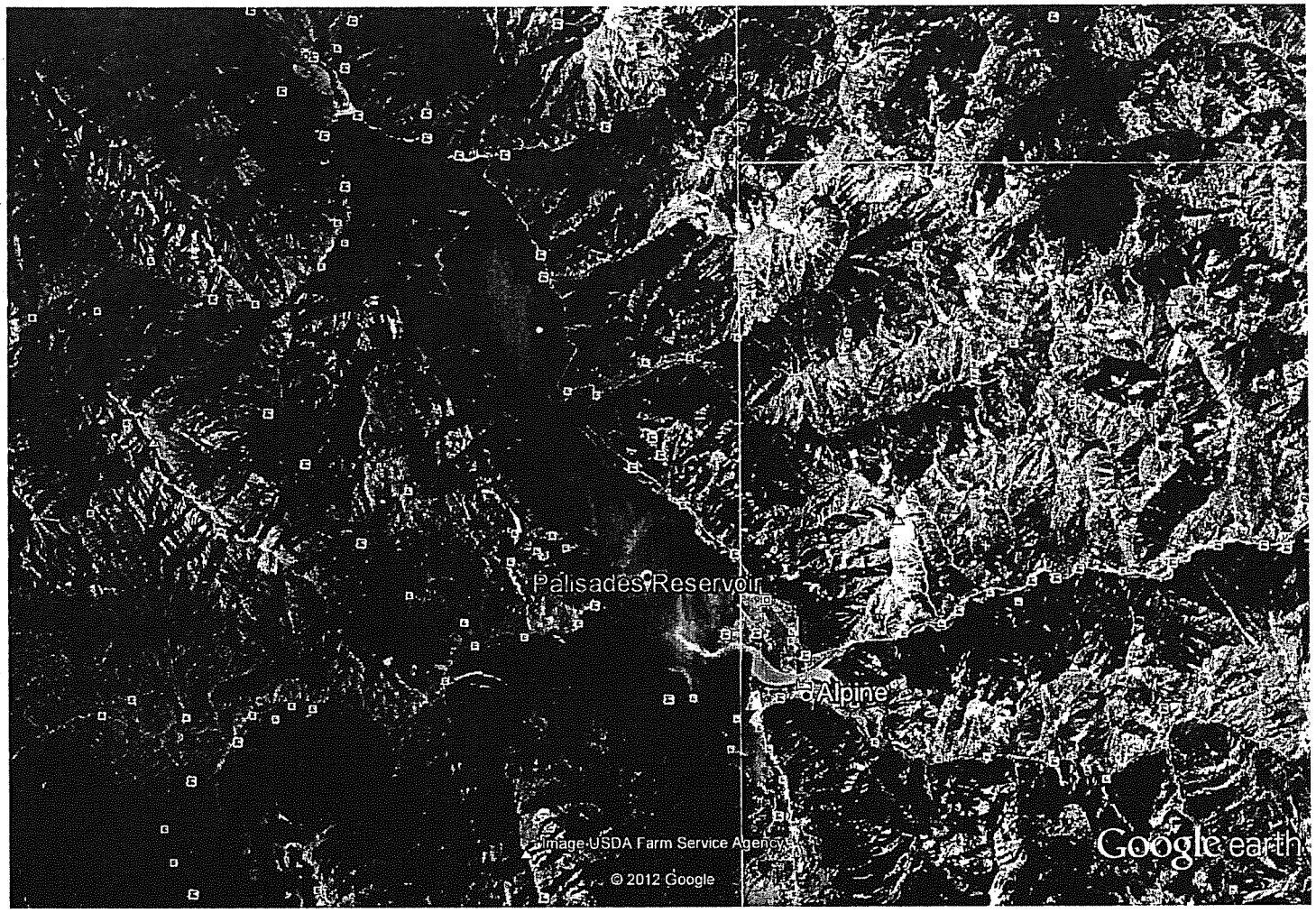
EXHIBIT 64

Printouts of Google Earth® images of
the Palisades dam and reservoir, Idaho

Affidavit of Michael C. Orr – Feb. 21, 2012

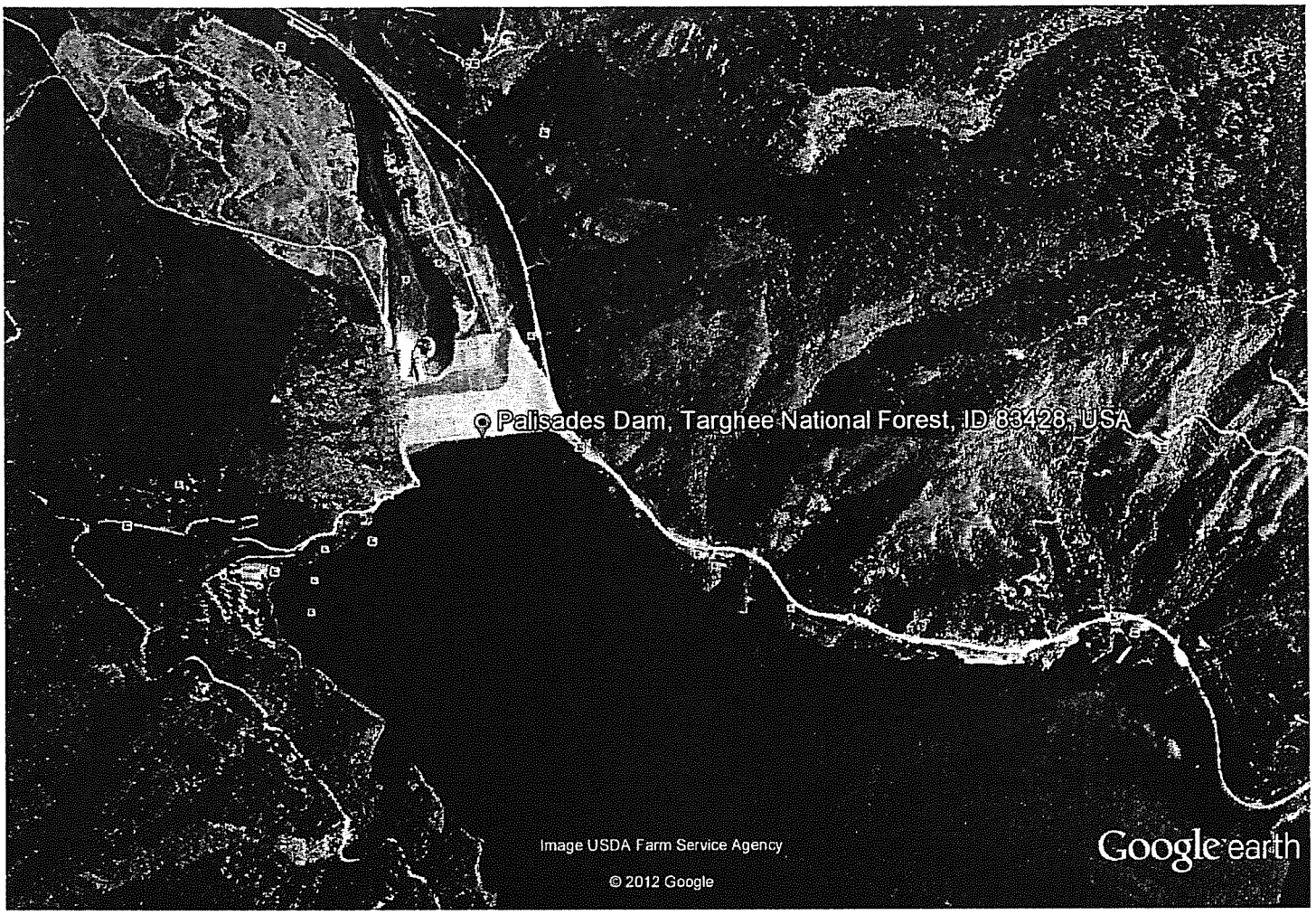
American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389



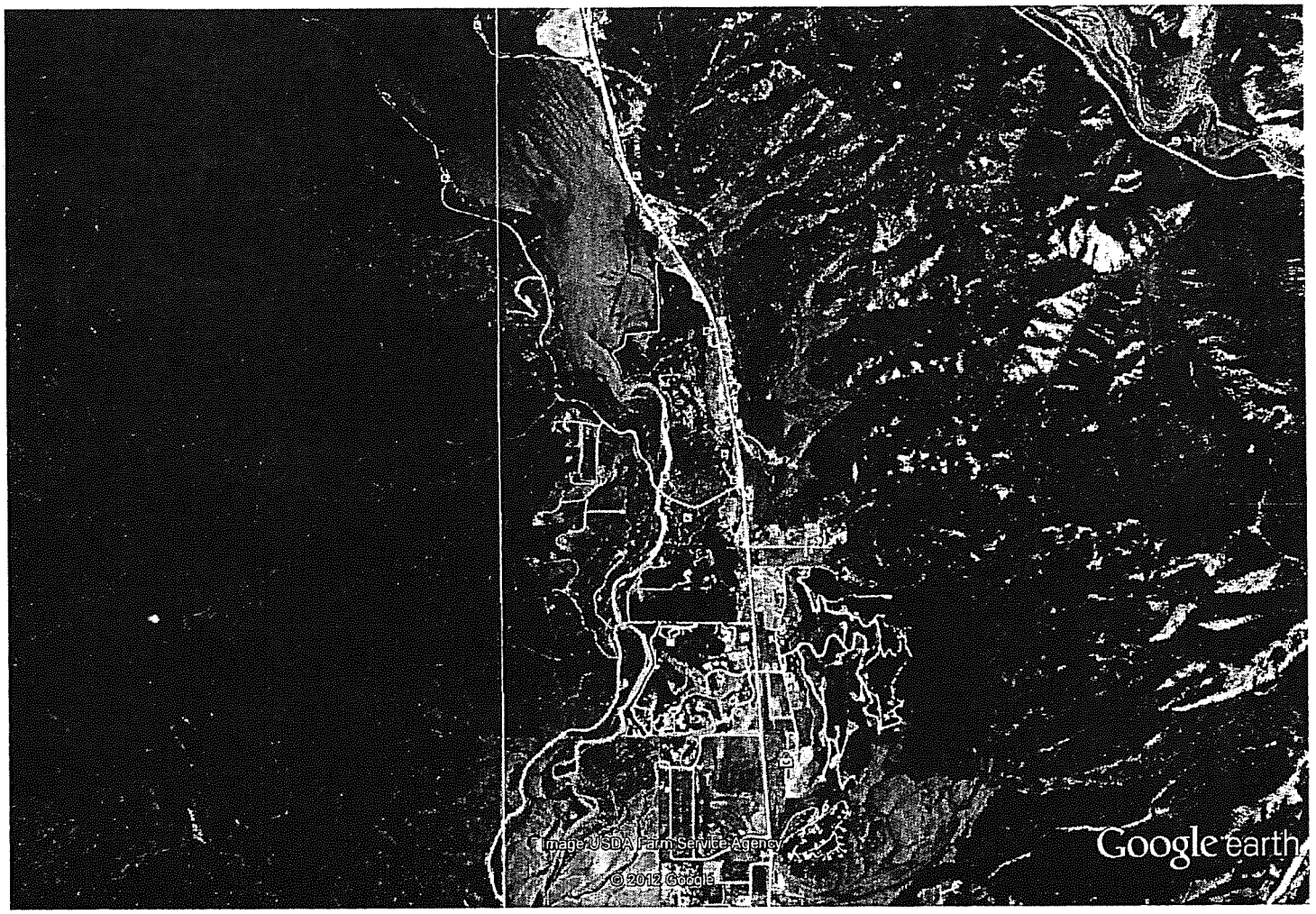
Google earth

miles 10
km 20



Google earth

miles 1
km 2



Google earth

miles 2
km 4

EXHIBIT 65

Excerpts, United States Bureau of Reclamation's
"Contract with Palisades Water Users, Incorporated
Concerning Storage Capacity in Palisades Reservoir,
And Related Matters" (Mar. 4, 1960).

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

FORM D

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Reclamation

Contract No.
14-06-100-1881

Minidoka and Palisades Projects
Idaho

Contract With
PALISADES WATER USERS, INCORPORATED
Concerning Storage Capacity in Palisades Reservoir,
And Related Matters

THIS CONTRACT, Made this 4th day of April 1960, pursuant to the Federal Reclamation Laws, between THE UNITED STATES OF AMERICA (hereinafter called the United States), acting through the Secretary of the Interior, and PALISADES WATER USERS, INCORPORATED (hereinafter called the Company), a corporation organized and existing under the laws of the State of Idaho and having its principal place of business at Idaho Falls, Idaho,

WITNESSETH, That:

2. WHEREAS, the United States, under the Federal Reclamation Laws, has heretofore constructed and is now operating Jackson Lake, Island Park, American Falls, and Lake Walcott reservoirs, among others, and is now constructing Palisades Dam and Reservoir Project (herein called the Palisades Project);

3. WHEREAS, the Company, desiring to cooperate with the United States and the various other water users organizations that enter into like contracts in the water conservation program that will be made

possible with the construction of Palisades Reservoir and its operation in conjunction with other Federal reservoirs on the Snake River, as herein proposed, has heretofore made application to contract for the use for its benefit of storage capacity in Palisades Reservoir; and

4. WHEREAS, the United States and the Company, serving an upper valley area, have not heretofore entered into any contracts with respect to storage rights in Federal reservoirs on the Snake River above Milner Dam;

NOW, THEREFORE, in consideration of the mutual and dependent covenants hereinafter stated, it is hereby agreed between the parties hereto as follows:

Definitions

5. The following terms, wherever used in this contract, shall have the following respective meanings:

"Secretary" shall mean the Secretary of the Interior or his duly authorized representative.

"Federal Reclamation Laws" shall mean the act of June 17, 1902 (32 Stat. 388) and acts amendatory thereof or supplemental thereto, including the act of September 30, 1950 (Public Law 864, 81st Congress, 2d Session).

"Advisory Committee" shall mean the committee defined by article 31 of this contract or its duly authorized representative.

"Irrigation season" shall mean a period of each year beginning April 1 and ending October 31 of that year.

"Storage season" shall mean, with respect to the reservoir involved, the period beginning October 1 of one year and ending during the next year when, as to the particular reservoir, no more water is available for storage.

"Reservoir system" shall mean the existing and authorized Federal Reclamation reservoirs on the Snake River and its tributaries down to and including Lake Walcott.

"Upper valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from the Snake River and its tributaries above American Falls Dam.

"Lower valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from the Snake River and its tributaries between American Falls Dam and Milner Dam.

"Watermaster" shall mean the officer of the State of Idaho charged by law with the distribution of Snake River water in the lower and upper valleys, or such other officer properly authorized by law and designated by mutual agreement of the Secretary and the Advisory Committee.

Provisions Relating to Storage Capacity in Palisades Reservoir (Articles 6 through 11)

United States to Construct Works

6. (a) Within the limits of the authorization therefor, the United States is now constructing and will complete and operate and maintain Palisades Dam on the Snake River in the vicinity of Irwin, Idaho, to provide a reservoir of an active capacity of about 1,200,000 acre-feet, and related facilities, substantially in accordance with the plans set forth in House Document No. 720, 81st Congress.

(b) When the dam and reservoir are ready for the storage and delivery of water for irrigation purposes, the Secretary shall so announce, including a statement of the active capacity that will be available for irrigation storage.

Capacity to be Available to the Company

7. The authorized dam will provide a reservoir with an estimated active storage capacity of 1,200,000 acre-feet and, based on that estimated capacity, the use and benefit of four and one thousand four hundred forty-two ten thousandths percent (4.1442%) of that capacity is allocated hereby to the Company. Beginning with the first full irrigation season after the Secretary has announced that the reservoir is ready for storage and delivery of water for irrigation purposes, the United States will make available to the Company the stored water accruing to that percentage of the active capacity of that reservoir, within the limits and on terms and conditions provided in this contract. That

percentage shall, so long as the reservoir has an active capacity of 1,200,000 acre-feet, be treated as the equivalent of 49,730 acre-feet of active capacity. The latter figure may, however, be adjusted from time to time by agreement between the Secretary and the Advisory Committee whenever there are determinations that the active capacity is other than above stated.

Construction Charge Obligation

8. (a) The Company shall pay to the United States for the use of space as provided in article 7, as the construction charge obligation, the sum of four hundred forty-seven thousand five hundred seventy dollars ($447,570), this being determined at the rate of nine dollars ($9.00) per acre-foot of capacity and on the assumption that the reimbursable construction costs of the Palisades Project finally allocated to joint facilities equal or exceed the sum of twenty-three million two hundred one thousand one hundred dollars ($23,201,100). If the reimbursable joint facility construction costs, as finally determined, are less than twenty-three million two hundred one thousand one hundred dollars ($23,201,100), and, as a result, the amount of joint facility costs allocated to irrigation is less than the amount expected so to be allocated according to the Secretary's report of July 1, 1949,[1/] the amount of the reduction shall be proportioned between irrigation construction costs assigned to be repaid by the water users and those

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1/ Of the estimated joint facility construction costs, $21,724,400 were allocated to irrigation under the report approved and adopted by the Secretary on July 1, 1949 (H. Doc. No. 720, 81st Cong.).

assigned for repayment from power revenues on the basis of the amounts of estimated irrigation construction costs so assigned in the Secretary's report of July 1, 1949. The amount of reduction, if any, when determined by the Secretary, shall be distributed equally as a credit against the construction charge obligation of all space the costs of which are allocated to irrigation. The total amount of credit and the portion thereof to which the Company is entitled shall be announced in writing by the Secretary promptly after final construction costs are determined and the allocations thereof are made. In no event, however, shall the credit be such as to reduce the Company's total construction charge obligation to less than three hundred eighty-five thousand four hundred seven dollars and fifty cents ($385,407.50), this being at the rate of seven dollars and seventy-five cents ($7.75) per acre-foot of capacity as initially stated in article 7.

(b) The construction charge obligation under this article shall be repaid by the Company to the United States in forty (40) successive annual instalments to be as nearly equal as is practicable. The due date of the initial instalment, established in relation to the date announced by the Secretary as the date that the dam is substantially complete and ready for storage, will be as follows: (i) if, on the announced date, the provisions of (d) of article 21 are still in effect, the first instalment shall be payable on or before December 31 of the third full calendar year after that date, the project for repayment purposes being treated as incomplete during the first two years; and (ii) if, on the announced date, the provisions of (d) of article 21 are no

longer in effect, the first instalment shall be payable on or before December 31 of the first full calendar year after that date. In the event there is, under the operation of (a) of this article, a reduction in the Company's total obligation after the payment of instalments has started, the amount of credit available shall be distributed evenly over the remaining unaccrued instalments as of the time the amount of the credit is announced.

Operation and Maintenance Obligation - Palisades

9. (a) The Company, beginning as provided in (b) of this article and continuing during the period of operation and maintenance of the Palisades Dam and Reservoir by the United States, shall pay to the United States in advance four and fourteen one hundredths percent (4.14%) of the costs of operating and maintaining that dam and reservoir, including whatever costs may be incurred in the delivery of water therefrom, which are apportionable to the irrigation storage rights therein. There shall be determined from time to time by the Secretary, after consultation with the Advisory Committee, the basis for distributing among the various purposes which by law are to be served by the dam and reservoir the costs of operation and maintenance thereof and the basis for assigning those costs for repayment. In determining the total costs annually apportioned to the irrigation storage rights there shall be deducted from the total annual cost of operation and maintenance of the dam and reservoir, those costs which are determined to be properly chargeable to other purposes served by the reservoir and for which other provision for repayment, in

whole or in part, is made pursuant to law. The costs apportionable to the irrigation storage rights shall be distributed annually to all storage space that is made available for irrigation purposes.

(b) Beginning with January 1 of the year in which the use and benefit of Palisades space is first available to the Company as provided in article 7, payment of the Company's share of Palisades Dam and Reservoir operation and maintenance costs shall be made for each calendar year on the basis of annual estimates by the Secretary. The notice of these annual estimates, hereinafter referred to as the operation and maintenance charge notice, shall contain a statement of the estimated cost of operation and maintenance of the dam and reservoir to be incurred in the calendar year involved and the amount of the Company's share of those estimated costs. The operation and maintenance charge notice shall be furnished to the Company on or before February 1 of the calendar year for which the notice is issued, but, when requested by the Company, a preliminary estimate shall be given at such earlier date as is agreed on in writing. The Company shall pay the amount stated in the notice on or before April 1 of the year for which it is issued or such other date as may be agreed on in writing.

(c) Whenever, in the opinion of the Secretary, funds so advanced will be inadequate to meet the Company's share of the costs of operating and maintaining the dam and reservoir, he may give a supplemental operation and maintenance charge notice, stating therein the amount of the Company's share of the additional funds required, and the

Company shall advance that additional amount on or before the date specified in the supplemental notice. If funds advanced by the Company under this article exceed the Company's share of the actual costs of operation and maintenance of the dam and reservoir for the year for which advanced, the surplus shall be credited on the operation and maintenance charge to become due for succeeding years.

Nature and Extent of Palisades Storage Right

10. (a) Beginning with the storage season indicated in article 7, the Company shall be entitled to have the following storage rights in Palisades Reservoir:

(1) The right to have stored to its credit during each storage season, four and one thousand four hundred forty-two ten thousandths percent (4.1442%) of all water stored in Palisades Reservoir during that season under the Palisades storage right.

(2) The right to have held over from one irrigation season to the next, stored water to which it is entitled.

The total amount of stored water to the Company's credit at any time shall not, however, exceed the total amount of space in the reservoir available to the Company under this contract, and the Company's storage rights in Palisades Reservoir are hereby made subject to the provisions of (c) of this article.

(b) Stored water available under the rights in Palisades Reservoir created by this contract shall be available for delivery to the Company during any irrigation season within these limitations:

(1) Except in cases of emergency, deliveries shall be limited to periods when the Company's natural flow rights are not sufficient to meet the Company's irrigation water requirements.

(2) Deliveries shall be limited at any time to the amount which can be delivered by means of the Company's proportionate share of the outlet capacity, taking into account the requirement of passing through the reservoir water belonging to prior rights and the physical limitations of the existing outlet works.

(c) Under the provisions of the act of September 30, 1950, the active capacity of Palisades Reservoir will be used jointly for irrigation and flood control storage in accordance with the operating plan set forth in House Document No. 720, 81st Congress, and attached hereto as Exhibit A, as that plan is implemented by rules and regulations issued pursuant to section 7 of the act of December 22, 1944

(58 Stat. 890). All the Company's storage rights are subject to the operation of the reservoir in accordance with this subarticle. In the event Palisades Reservoir fails to fill during any storage season by reason of such flood control operations, the amount of shortage so attributable shall be prorated equally over all space allocated to storage of water for irrigation, municipal, or other miscellaneous purposes and shall be charged against all stored water including that, if any, carried over from prior irrigation seasons.

Saving of Winter Water; Special Storage Right

11. (a) Beginning with the date announced by the Secretary as the time when Palisades Reservoir will be ready for operation as provided in article 6, certain water users organizations have contracted with the United States to make, for a period of 150 consecutive days during the period from November 1 through April 30 of each storage season, no diversion of water from the Snake River or any of its tributaries by means of its existing diversion works or by any other means.

(b) The total savings of water during each storage season as the result of curtailment of winter diversions by the water users organizations diverting from the Snake River who have contracted with the United States to curtail or cease diversions is agreed to be 143,000 acre-feet, of which 135,000 acre-feet are attributable to curtailments by those diverting above American Falls Dam and 8,000 acre-feet below that point. The Company, not partaking in the winter water savings program, shall be entitled to no storage in Palisades Reservoir by reason of the program set out in this article.

(b) In addition to other specific provisions as to the distribution of losses chargeable to stored water, there shall be charged against stored water held under this contract to the credit of the Company in any reservoir of the system at the end of any irrigation season one and one-half percent (1½%) to offset evaporation losses. Such charge shall be made as of not later than the end of the ensuing storage season.

Ordering of Water

17. (a) The ordering of stored water shall be effected by the Company by notifying the watermaster, giving notice a reasonable period in advance, of the amount of water, within the limits of its water entitlements, to be diverted during each day of the irrigation season. The watermaster will be responsible for determining from day to day the amount of stored water required to be released from the various reservoirs of the system to comply with the requirements of the Company and all other entities entitled to the delivery of stored water only in response to orders from the watermaster. The watermaster shall be responsible for determining what portion of the Company's diversions is chargeable to stored water being held in the reservoir system for the Company, and diversions by the Company in excess of entitlements shall be charged against stored water subsequently accruing to the Company's credit under this contract or any other contract with respect to storage in the reservoir system.

(b) Actions by the watermaster under the provisions of this article shall be as agent of the Company.

(b) In connection with Idaho Permit No. 15134, a direct diversion permit with a priority date of March 30, 1921, held in connection with American Falls Reservoir, the United States may contract with American Falls Reservoir District No. 2 to recognize the right of that district to have water license No. 15134 exercised substantially as follows:

> American Falls Reservoir District No. 2 to have the right to divert as natural flow during each irrigation season under water license No. 15134, having a March 30, 1921 priority, as follows: From May 1 of each irrigation season continuing during that season so long as there is natural flow available for that priority, the first 1,700 cubic feet per second of flow to be available one-half (1/2) to American Falls Reservoir District No. 2 and one-half (1/2) to American Falls Reservoir, except that in any year in which American Falls Reservoir is full to capacity on April 30 or fills after that date, taking into account any water that may be temporarily stored to its credit in upstream reservoirs, all water diverted by American Falls Reservoir District No. 2 within the maximum of 1,700 cubic feet per second during the year prior to the initial storage draft on American Falls Reservoir after the reservoir finally fills in that year shall be considered as natural flow under water license No. 15134. Nothing herein shall prevent American Falls Reservoir District No. 2 from diverting water under said license prior to May 1

of a given irrigation season but all such diversions shall be charged as storage in the event the reservoir is not full on April 30 of that season or does not fill after April 30 of that season.

Water available at American Falls Reservoir for the March 30, 1921 priority under water license No. 15134, other than that to be available to American Falls Reservoir District No. 2 as above provided, to be available for storage in American Falls Reservoir.

And the Company agrees that it will not oppose an adjudication of a natural flow right of the waters of the Snake River for the benefit of American Falls Reservoir District No. 2 consistent with the foregoing criteria. The contract by the United States with American Falls Reservoir District No. 2 shall be on the condition, however, that that district assume its proportionate share of the obligation for the cost of replacement power under the provisions of article 13. When such contract has become operative, the United States shall make application to the State of Idaho for amendment of water permit No. 15134 and the issuance thereunder with a priority date of March 30, 1921, requiring that the remainder of the right under the permit, 6,300 second-feet, to the extent such right remains outstanding, be used for storage in American Falls Reservoir, such right, however, if issued to the United States not to carry voting privileges in water users meetings under the laws of the State of Idaho. Such application shall, however, leave unaffected water license No. R-269 having a priority dated March 30, 1921.

(c) If the United States, under the Federal Reclamation Laws, hereafter constructs storage facilities on the Snake River or its tributaries above Milner Dam in addition to those now constructed or authorized to be constructed to provide water for irrigation purposes, the Company hereby agrees that, notwithstanding the establishment of a storage right for such additional facilities with a priority subsequent to that assigned to Palisades Dam and Reservoir, the United States may hereafter contract with water users organizations which then have storage rights in Palisades Reservoir, to operate not to exceed 300,000 acre-feet of such capacity for the storage of water for irrigation for the benefit of such organizations as though that capacity had a storage right of identical priority with that held for Palisades Dam and Reservoir.

Protection of Water Rights

24. In case any dispute arises as to the character, extent, priority or validity of any of the storage rights held in the name of the United States for the benefit of the Company in connection with its rights under this contract, the United States may, independently of the Company, bring and prosecute judicial proceedings for the determination of such dispute and take all other measures necessary toward the defense and protection of its water rights, and such proceedings may be brought and prosecuted by the Company.

Refusal to Deliver Water in Case of Default

25. No water available to the Company under this contract shall be delivered to or for the Company if the Company is in arrears in the advance payment of operation and maintenance charges owed to the United States,

Officials Not to Benefit

40. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ H. T. Nelson
Regional Director, Region 1
Bureau of Reclamation
P. O. Box 937, Boise, Idaho

PALISADES WATER USERS, INCORPORATED

By /s/ C. R. Holden

(SEAL)

Attest:

/s/ Melva Poppy
Secretary

The Following Exhibits Are
Part of This Contract

Document entitled "Criteria and Method for Determination of Certain Minidoka Powerplant Production Losses From Restrictions on Use of Water Rights"

Exhibit A entitled "Palisades Project - Operating Plan for Palisades Reservoir as set Forth in the Appendixes of House Document No. 720, 81st Congress"

Exhibit B entitled "Basic Provisions Incorporated or to be Incorporated in Contracts with Upper Valley and Lower Valley Water Users Organizations to Govern the Permanent Exchange of Certain American Falls and Jackson Lake Storage Rights"

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WATER RESOURCES

EXHIBIT 66

Excerpts, United States Bureau of Reclamation's
"Contract with Minidoka Irrigation District
Concerning Storage Capacity in American Falls,
Jackson Lake And Palisades Reservoir,
And Related Matters" (Feb. 2, 1960)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,

Draft B
July 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Contract No.
14-06-100-1833

CONTRACT WITH MINIDOKA IRRIGATION DISTRICT CONCERNING STORAGE CAPACITY IN AMERICAN FALLS, JACKSON LAKE AND PALISADES RESERVOIRS, AND RELATED MATTERS

THIS CONTRACT, made this 2d day of February 1960, pursuant to the Federal Reclamation Laws, between THE UNITED STATES OF AMERICA, hereinafter called the United States, acting through the Secretary of the Interior, and MINIDOKA IRRIGATION DISTRICT, hereinafter called the District, a corporation organized and existing under the laws of the State of Idaho and having its principal place of business at Rupert, Idaho,

WITNESSETH, THAT:

2. WHEREAS, the United States, under the Federal Reclamation Laws, has heretofore constructed and is now operating Jackson Lake, Island Park, American Falls, and Lake Walcott reservoirs, among others, and is now constructing Palisades Dam and Reservoir Project, herein called the Palisades Project; and

3. WHEREAS, the District, desiring to cooperate with the United States and the various other water users organizations that enter into like contracts in the water conservation program that will be made possible with the construction of Palisades Reservoir and its operation in conjunction with other Federal reservoirs on the Snake River, as herein proposed, has heretofore made application to contract for the use for its benefit of storage capacity in American Falls and Palisades reservoirs; and

DEFINITIONS

6. The following terms, wherever used in this contract, shall have the following respective meanings:

"Secretary" shall mean the Secretary of the Interior or his duly authorized representative.

"Federal Reclamation Laws" shall mean the act of June 17, 1902 (32 Stat. 388) and acts amendatory thereof or supplemental thereto, including the act of September 30, 1950 (64 Stat. 1083).

"Advisory Committee" shall mean the committee defined by article 44 of this contract or its duly authorized representative.

"Irrigation season" shall mean a period of each year beginning April 1 and ending October 31 of that year.

"Storage season" shall mean, with respect to the reservoir involved, the period beginning October 1 of one year and ending during the next year when, as to the particular reservoir, no more water is available for storage under its priority rights.

"Reservoir system" shall mean the existing and authorized Federal reclamation reservoirs on the Snake River and its tributaries down to and including Lake Walcott.

"Upper valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from the Snake River and its tributaries above American Falls Dam.

"Lower valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from the Snake River and its tributaries between American Falls Dam and Milner Dam.

PROVISIONS RELATING TO STORAGE CAPACITY IN PALISADES RESERVOIR (Articles 15 through 20)

UNITED STATES TO CONSTRUCT WORKS

15. (a) Within the limits of the authorization therefor, the United States is now constructing and will complete and operate and maintain Palisades Dam on the Snake River in the vicinity of Irwin, Idaho, to provide a reservoir of an active capacity of about 1,200,000 acre-feet, and related facilities, substantially in accordance with the plans set forth in House Document No. 720, 81st Congress.

(b) When the dam and reservoir are ready for the storage and delivery of water for irrigation purposes, the Secretary shall so announce, including a statement of the active capacity that will be available for irrigation storage.

CAPACITY TO BE AVAILABLE TO THE DISTRICT

16. The authorized dam will provide a reservoir with an estimated active storage capacity of 1,200,000 acre-feet and, based on that estimated capacity, the use and benefit of two and nine thousand one hundred sixty-seven ten thousandths percent (2.9167%) of that capacity is allocated hereby to the District. Beginning with the first full irrigation season after the Secretary has announced that the reservoir is ready for storage and delivery of water for irrigation purposes, the United States will make available to the District the stored water accruing to that percentage of the active capacity of that reservoir, within the limits and on terms and conditions provided in this contract. That percentage

shall, so long as the reservoir has an active capacity of 1,200,000 acre-feet, be treated as the equivalent of 35,000 acre-feet of active capacity. The latter figure may, however, be adjusted from time to time by agreement between the Secretary and the Advisory Committee, whenever there are determinations that the active capacity is other than above stated.

CONSTRUCTION CHARGE OBLIGATION

17. (a) The District shall pay to the United States for the use of space as provided in article 16, as the construction charge obligation, the sum of three hundred fifteen thousand dollars ($315,000.00), this being determined at the rate of nine dollars ($9.00) per acre-foot of capacity and on the assumption that the reimbursable construction costs of the Palisades Project finally allocated to joint facilities equal or exceed the sum of twenty-three million two hundred one thousand one hundred dollars ($23,201,100). If the reimbursable joint facility construction costs, as finally determined, are less than twenty-three million two hundred one thousand one hundred dollars ($23,201,100), and, as a result, the amount of joint facility costs allocated to irrigation is less than the amount expected so to be allocated according to the Secretary's report of July 1, 1949,[1/] the amount of the reduction shall be proportioned between irrigation construction costs assigned to be repaid by the water

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1/ Of the estimated joint facility construction costs, $21,724,400 were allocated to irrigation under the report approved and adopted by the Secretary on July 1, 1949 (H. Doc. No. 720, 81st Cong.).

users and those assigned for repayment from power revenues on the basis of the amounts of estimated irrigation construction costs so assigned in the Secretary's report of July 1, 1949. The amount of reduction, if any, when determined by the Secretary, shall be distributed equally as a credit against the construction charge obligation of all space the costs of which are allocated to irrigation. The total amount of credit and the portion thereof to which the District is entitled shall be announced in writing by the Secretary promptly after final construction costs are determined and the allocations thereof are made. In no event, however, shall the credit be such as to reduce the District's total construction charge obligation to less than two hundred seventy-one thousand two hundred fifty dollars ($271,250.00), this being at the rate of seven dollars and seventy-five cents ($7.75) per acre-foot of capacity as initially stated in article 16.

(b) The construction charge obligation under this article shall be repaid by the District to the United States in forty (40) successive annual instalments to be as nearly equal as is practicable. The due date of the initial instalment, established in relation to the date announced by the Secretary as the date that the dam is substantially complete and ready for storage, will be as follows:

(1) If, on the announced date, the provisions of (d) of article 34 are still in effect, the first instalment shall be payable on or before December 31 of the third full calendar year after that date, the project for repayment purposes being treated as incomplete during the first two years; and

(2) if, on the announced date, the provisions of (d) of article 34 are no longer in effect, the first instalment shall be payable on or before December 31 of the first full calendar year after that date. In the event there is, under the operation of (a) of this article, a reduction in the District's total obligation after the payment of instalments has started, the amount of credit available shall be distributed evenly over the remaining unaccrued instalments as of the time the amount of the credit is announced.

OPERATION AND MAINTENANCE OBLIGATION - PALISADES

18. (a) The District, beginning as provided in (b) of this article and continuing during the period of operation and maintenance of the Palisades Dam and Reservoir by the United States, shall pay to the United States in advance two and nine thousand one hundred sixty-seven ten thousandths percent (2.9167%) of the costs of operating and maintaining that dam and reservoir, including whatever costs may be incurred in the delivery of water therefrom, which are apportionable to the irrigation storage rights therein. There shall be determined from time to time by the Secretary, after consultation with the Advisory Committee, the basis for distributing among the various purposes which by law are to be served by the dam and reservoir the costs of operation and maintenance thereof and the basis for assigning those costs for repayment. In determining the total costs annually apportioned to the irrigation storage rights

of operating and maintaining the dam and reservoir, he may give a supplemental operation and maintenance charge notice, stating therein the amount of the District's share of the additional funds required, and the District shall advance that additional amount on or before the date specified in the supplemental notice. If funds advanced by the District under this article exceed the District's share of the actual costs of operation and maintenance of the dam and reservoir for the year for which advanced, the surplus shall be credited on the operation and maintenance charges to become due for succeeding years.

NATURE AND EXTENT OF PALISADES STORAGE RIGHT

19. (a) Beginning with the storage season indicated in article 16, the District shall be entitled to have the following storage rights in Palisades Reservoir:

(1) The right to have stored to its credit during each storage season two and nine thousand one hundred sixty-seven ten thousandths percent (2.9167%) of all water stored in Palisades Reservoir during that season under the Palisades storage right.

(2) The right to have stored to its credit during each storage season and with a priority as indicated in article 20, water to which it is entitled through the curtailment of water diversions as provided in that article.

(3) The right to have held over from one irrigation season to the next, stored water to which it is entitled.

The total amount of stored water to the District's credit at any time shall not, however, exceed the total amount of space in the reservoir available to the District under this contract, and the District's storage rights in Palisades Reservoir are hereby made subject to the provisions of (c) of this article.

(b) Stored water available under the rights in Palisades Reservoir created by this contract shall be available for delivery to the District during any irrigation season within these limitations:

(1) Except in cases of emergency, deliveries shall be limited to periods when the District's natural-flow rights and stored water in reservoirs downstream from Palisades Reservoir are not sufficient to meet the District's irrigation water requirements, but this provision shall not preclude the District for purposes of allocation, on paper, from designating the reservoir from which the District is to receive waters, or from designating the reservoir in which the carry-over water will be stored at the end of a particular season to the extent of its capacity in the particular reservoir.

(2) Deliveries shall be limited at any time to the amount which can be delivered by means of the District's proportionate share of the outlet capacity, taking into account the requirement of passing through the reservoir water belonging to prior rights and the physical limitations of the existing outlet works.

(c) Under the provisions of the act of September 30, 1950, the active capacity of Palisades Reservoir will be used jointly for irrigation and flood control storage in accordance with the operating plan set forth in House Document No. 720, 81st Congress, and attached hereto as Exhibit A, as that plan is implemented by rules and regulations issued pursuant to section 7 of the act of December 22, 1944 (58 Stat. 890). All the District's storage rights are subject to the operation of the reservoir in accordance with this subarticle. In the event Palisades Reservoir fails to fill during any storage season by reason of such flood control operations, the amount of shortage so attributable shall be prorated equally over all space allocated to storage of water for irrigation, municipal, or other miscellaneous purposes and shall be charged against all stored water including that, if any, carried over from prior irrigation seasons.

SAVING OF WINTER WATER; SPECIAL STORAGE RIGHT

20. (a) Beginning with the date announced by the Secretary as the time when Palisades Reservoir will be ready for operation as provided in article 15, the District shall, for a period of 150 consecutive days during the period from November 1 through April 30 of each storage season, make no diversion of water from the Snake River or any of its tributaries by means of its existing diversion works or by any other means.

(b) The total savings of water during each storage season as the result of curtailment of winter diversions by the District and all other water users organizations diverting from the Snake River who

OFFICIALS NOT TO BENEFIT

54. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ M. B. Austin
Acting Regional Director, Region 1
Bureau of Reclamation
P. O. Box 937, Boise, Idaho

MINIDOKA IRRIGATION DISTRICT

(SEAL)

By /s/ Glen Stimpson
President

Attest:

/s/ Eldon J. Stephenson
Secretary

The Following Exhibits Are
Part of This Contract

Document entitled "Criteria and Method for Determination of Certain Minidoka Powerplant Production Losses From Restrictions on Use of Water Rights"

Exhibit A entitled "Palisades Project - Operating Plan for Palisades Reservoir as set Forth in the Appendixes of House Document No. 720, 81st Congress"

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DEPARTMENT OF
WATER RESOURCES

EXHIBIT 67

Excerpts, "Contract Between United States of America
and Aberdeen-Springfield Canal Company
Concerning Storage Capacity in American Falls
And Palisades Reservoirs, And Related Matters"
(Oct. 22, 1952)

Affidavit of Michael C. Orr – Feb. 21, 2012

American Falls Subcase Nos. 01-02064,
01-02064A, 01-02064B, 01-02064C,
01-02064D, 01-02064E, 01-02064F,
01-02064L, 01-10042, 01-10042A,
01-10042B, 01-10053A, and 01-10190

Palisades Subcase Nos. 01-02068,
01-02068D, 01-02068E, 01-02068F,
01-02068M, 01-02068Y, 01-10043,
01-10043A, 01-10043E, 01-10191,
and 01-10389

Contract No. 14-06-W-24

CONTRACT BETWEEN

THE UNITED STATES OF AMERICA
and
ABERDEEN-SPRINGFIELD CANAL COMPANY

Concerning Storage Capacity in American Falls and Palisades Reservoirs, and Related Matters

Minidoka and Palisades Projects - Idaho

"Secretary" shall mean the Secretary of the Interior or his duly authorized representative.

"Federal Reclamation Laws" shall mean the Act of June 17, 1902 (32 Stat. 388) and acts amendatory thereof or supplemental thereto, including the Act of September 30, 1950 (Public Law 864, 81st Congress, 2d Session).

"Advisory Committee" shall mean the committee defined by article 42 of this contract or its duly authorized representative.

"Irrigation season" shall mean a period of each year beginning April 1 and ending October 31 of that year.

"Storage season" shall mean, with respect to the reservoir involved, the period beginning October 1 of one year and ending during the next year when, as to the particular reservoir, no more water is available for storage.

"Reservoir system" shall mean the existing and authorized Federal reclamation reservoirs on the Snake River and its tributaries down to and including Lake Walcott.

"Upper valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from the Snake River and its tributaries above American Falls Dam.

"Lower valley" shall mean the irrigated areas of the Snake River Basin that are served by canals diverting from

as elevation 6752, and 6,433 acre-feet of capacity in American Falls Reservoir.

Provisions Relating to Storage Capacity in Palisades Reservoir
(Articles 12 through 17)

United States to Construct Works

12. (a) Within the limits of the authorization therefor, the United States is now constructing and will complete and operate and maintain Palisades Dam on the Snake River in the vicinity of Irwin, Idaho, to provide a reservoir of an active capacity of about 1,200,000 acre-feet, and related facilities, substantially in accordance with the plans set forth in House Document No. 720, 81st Congress.

(b) When the dam and reservoir are ready for the storage and delivery of water for irrigation purposes, the Secretary shall so announce, including a statement of the active capacity that will be available for irrigation storage.

Capacity to be Available to the Company

13. The authorized dam will provide a reservoir with an estimated active storage capacity of 1,200,000 acre-feet and, based on that estimated capacity, the use and benefit of twelve and seven thousand three hundred thirty-three ten thousandths per cent (12.7333%) of that capacity is allocated hereby to the Company. Beginning with the first full irrigation season after the Secretary has announced that the reservoir is ready for storage and delivery

of water for irrigation purposes, the United States will make available to the Company the stored water accruing to that percentage of the active capacity of that reservoir, within the limits and on terms and conditions provided in this contract. That percentage shall, so long as the reservoir has an active capacity of 1,200,000 acre-feet, be treated as the equivalent of 152,800 acre-feet of active capacity. The latter figure may, however, be adjusted from time to time by agreement between the Secretary and the Advisory Committee whenever there are determinations that the active capacity is other than above stated.

Construction Charge Obligation

14. (a) The Company shall pay to the United States for the use of space as provided in article 13, as the construction charge obligation, the sum of one million three hundred seventy-five thousand two hundred dollars ($1,375,200), this being determined at the rate of nine dollars ($9.00) per acre-foot of capacity and on the assumption that the reimbursable construction costs of the Palisades Project finally allocated to joint facilities equal or exceed the sum of twenty-three million two hundred one thousand one hundred dollars ($23,201,100). If the reimbursable joint facility construction costs, as finally determined, are less than twenty-three million two hundred one thousand one hundred dollars ($23,201,100), and, as a result, the amount of joint facility costs allocated to irrigation is less than the amount expected so to be allocated according to the Secretary's

report of July 1, 1949,[1/] the amount of the reduction shall be proportioned between irrigation construction costs assigned to be repaid by the water users and those assigned for repayment from power revenues on the basis of the amounts of estimated irrigation construction costs so assigned in the Secretary's report of July 1, 1949. The amount of reduction, if any, when determined by the Secretary, shall be distributed equally as a credit against the construction charge obligation of all space the costs of which are allocated to irrigation. The total amount of credit and the portion thereof to which the Company is entitled shall be announced in writing by the Secretary promptly after final construction costs are determined and the allocations thereof are made. In no event, however, shall the credit be such as to reduce the Company's total construction charge obligation to less than one million one hundred eighty-four thousand two hundred dollars ($1,184,200), this being at the rate of seven dollars and seventy-five cents ($7.75) per acre-foot of capacity as initially stated in article 13.

(b) The construction charge obligation under this article shall be repaid by the Company to the United States in forty (40) successive annual instalments to be as nearly equal as is practicable. The due date of the initial instalment, established in relation to

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1/ Of the estimated joint facility construction costs, $21,724,400 were allocated to irrigation under the report approved and adopted by the Secretary on July 1, 1949 (H. Doc. No. 720, 81st Cong.).

the date announced by the Secretary as the date that the dam is substantially complete and ready for storage, will be as follows: (i) if, on the announced date, the provisions of (d) of article 32 are still in effect, the first instalment shall be payable on or before December 31 of the third full calendar year after that date, the project for repayment purposes being treated as incomplete during the first two years; and (ii) if, on the announced date, the provisions of (d) of article 32 are no longer in effect, the first instalment shall be payable on or before December 31 of the first full calendar year after that date. In the event there is, under the operation of (a) of this article, a reduction in the Company's total obligation after the payment of instalments has started, the amount of credit available shall be distributed evenly over the remaining unaccrued instalments as of the time the amount of the credit is announced.

Operation and Maintenance Obligation - Palisades

15. (a) The Company, beginning as provided in (b) of this article and continuing during the period of operation and maintenance of the Palisades Dam and Reservoir by the United States, shall pay to the United States in advance twelve and seventy-three hundredths per cent (12.73%) of the costs of operating and maintaining that dam and reservoir, including whatever costs may be incurred in the delivery of water therefrom, which are apportionable to the irrigation storage rights therein. There shall be determined from time to time by the Secretary, after consultation with the Advisory Committee, the basis

for distributing among the various purposes which by law are to be served by the dam and reservoir the costs of operation and maintenance thereof and the basis for assigning those costs for repayment. In determining the total costs annually apportioned to the irrigation storage rights there shall be deducted from the total annual cost of operation and maintenance of the dam and reservoir, those costs which are determined to be properly chargeable to other purposes served by the reservoir and for which other provision for repayment, in whole or in part, is made pursuant to law. The costs apportionable to the irrigation storage rights shall be distributed annually to all storage space that is made available for irrigation purposes.

(b) Beginning with January 1 of the year in which the use and benefit of Palisades space is first available to the Company, as provided in article 13, payment of the Company's share of Palisades Dam and Reservoir operation and maintenance costs shall be made for each calendar year on the basis of annual estimates by the Secretary. The notice of these annual estimates, hereinafter referred to as the operation and maintenance charge notice, shall contain a statement of the estimated cost of operation and maintenance of the dam and reservoir to be incurred in the calendar year involved and the amount of the Company's share of those estimated costs. The operation and maintenance charge notice shall be furnished to the Company on or before February 1 of the calendar year for which the notice is issued, but, when requested by the Company, a preliminary estimate shall be

given at such earlier date as is agreed on in writing. The Company shall pay the amount stated in the notice on or before April 1 of the year for which it is issued or such other date as may be agreed on in writing.

(c) Whenever, in the opinion of the Secretary, funds so advanced will be inadequate to meet the Company's share of the costs of operating and maintaining the dam and reservoir, he may give a supplemental operation and maintenance charge notice, stating therein the amount of the Company's share of the additional funds required, and the Company shall advance that additional amount on or before the date specified in the supplemental notice. If funds advanced by the Company under this article exceed the Company's share of the actual costs of operation and maintenance of the dam and reservoir for the year for which advanced, the surplus shall be credited on the operation and maintenance charges to become due for succeeding years.

Nature and Extent of Palisades Storage Right

16. (a) Beginning with the storage season indicated in article 13, the Company shall be entitled to have the following storage rights in Palisades Reservoir:

(1) The right to have stored to its credit during each storage season, twelve and seven thousand three hundred thirty-three ten thousandths per cent (12.7333%) of all water stored in Palisades Reservoir during that season under the Palisades storage right.

(2) The right to have stored to its credit during each storage season and with a priority as indicated in article 17, water to which it is entitled through the curtailment of water diversions as provided in that article.

(3) The right to have held over from one irrigation season to the next, stored water to which it is entitled.

The total amount of stored water to the Company's credit at any time shall not, however, exceed the total amount of space in the reservoir available to the Company under this contract, and the Company's storage rights in Palisades Reservoir are hereby made subject to the provisions of (c) of this article.

(b) Stored water available under the rights in Palisades Reservoir created by this contract shall be available for delivery to the Company during any irrigation season within these limitations:

(1) Except in cases of emergency, deliveries shall be limited to periods when the Company's natural flow rights and stored water in reservoirs downstream from Palisades Reservoir are not sufficient to meet the Company's irrigation water requirements.

(2) Deliveries shall be limited at any time to the amount which can be delivered by means of the

Company's proportionate share of the outlet capacity, taking into account the requirement of passing through the reservoir water belonging to prior rights and the physical limitations of the existing outlet works.

(c) Under the provisions of the Act of September 30, 1950, the active capacity of Palisades Reservoir will be used jointly for irrigation and flood control storage in accordance with the operating plan set forth in House Document No. 720, 81st Congress, and attached hereto as Exhibit A, as that plan is implemented by rules and regulations issued pursuant to section 7 of the Act of December 22, 1944 (58 Stat. 890). All the Company's storage rights are subject to the operation of the reservoir in accordance with this subarticle. In the event Palisades Reservoir fails to fill during any storage season by reason of such flood control operations, the amount of shortage so attributable shall be prorated equally over all space allocated to storage of water for irrigation, municipal, or other miscellaneous purposes and shall be charged against all stored water including that, if any, carried over from prior irrigation seasons.

Saving of Winter Water; Special Storage Right

17. (a) Beginning with the date announced by the Secretary as the time when Palisades Reservoir will be ready for operation as provided in article 12, the Company shall, for a period of 150 consecutive days during the period from November 1 through April 30 of each

allotment of funds, shall not, however, relieve the Company from any obligations theretofore accrued under this contract, nor give the Company the right to terminate this contract as to any of its executory features pending the appropriation or allotment of such funds. No liability shall accrue against the United States in case such funds are not so appropriated or allotted.

Assignments Prohibited;
Successors and Assigns Obligated

50. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract, or any part thereof, or interest therein, shall be valid until approved by the Secretary.

Officials Not to Benefit

51. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ Vernon D. Northrop
Under Secretary of the Interior

(SEAL)

ABERDEEN-SPRINGFIELD CANAL COMPANY

Attest:

By /s/ H. L. Lowe
President

/s/ Elmer Isaak
Secretary

The Following Exhibits Are
Part of This Contract

Document entitled "Criteria and Method for Determination of Certain Minidoka Powerplant Production Losses From Restrictions on Use of Water Rights"

Exhibit A entitled "Palisades Project - Operating Plan for Palisades Reservoir as set Forth in the Appendixes of House Document No. 720, 81st Congress"