



Dam Safety Section

INTEROFFICE MEMORANDUM

COPY

TO: Strong Arm Dam No's 1 & 2
Dam #1 (13-2286), Dam #2 (13-0140)
FROM: John Falk, PE Dam Safety Manager
DATE: April 8, 2009
SUBJECT: Water Rights vs. Physical Storage Capacity

Reviewed: *[Signature]*
SWK

A review of storage rights for the referenced projects was researched to compare paper rights with the existing physical storage capacity of the reservoirs. The Phase I Inspection Report (1982) that was prepared for Strong Arm Dam #1, aka Treasureton Reservoir, indicates that some type of hydraulic structure was initially constructed in T14S, R39E, Section 2 on Battle Creek in 1887; a date that was based on verbal communication with the owners. However, no design plans or construction records have been found to document the height or storage capacity of the structure. As reported by the owner, Dam #2 was built out-of-channel in Section 9 several years later and was filled by means of a canal; but again, no design plans or construction records have been found to exist (Figure 1).

The earliest legal reference to allocation of water at this location is a summary Decree from the 5th Judicial District Court, Bannock County, Idaho dated 6/23/1903 (Figure 2). Based on said Decree, the water rights confirmed in the decree were subsequently numbered 13-0140, 13-0141 and 13-0142 per state assignment. No other record exists from that time period to provide a detailed description of the infrastructure that was in-place, or built and used to divert or to store the waters of Battle Creek.

On July 21, 1917 the Strong Arm Reservoir Company (SARC) filed Application 18704 (WR 13-2286) for the construction of three dams (Figure 3). The dams were numbered 1, 2, and 3, with a combined storage capacity of 1771.55 acre-feet, distributed as shown:

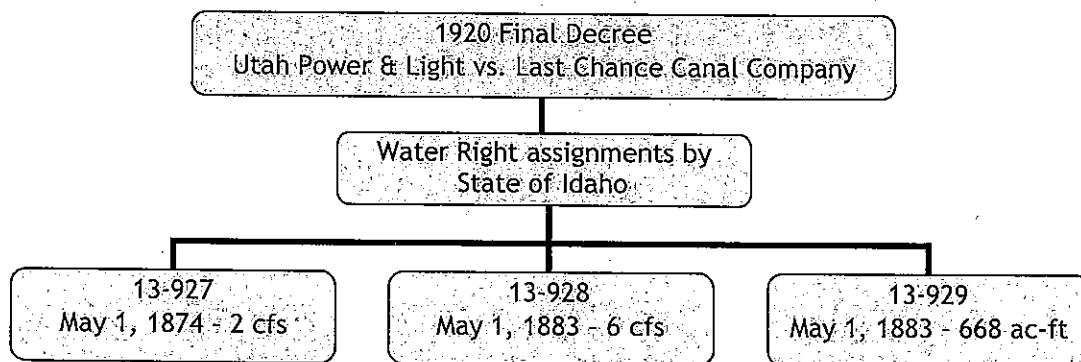
NAME	STORAGE (acre-feet)	LOCATION
Dam #1	607.37	14S 39E SEC 2
Dam #2	376.93	14S 39E SEC 9
Dam #3	787.25	14S 39E SEC 15

The drawing that was submitted with the application indicates the proposed reservoir storage capacity would be the result of an *enlargement* of all three structures; but at that time no such structure (Dam #3) existed in Section 15. Thus, there is uncertainty about the credibility of the remaining data contained in this application. Another unrealistic feature of the application/drawing is the apparent precision to hundredths of acre-feet capacity for each reservoir. Regardless, Permit R-76 (WR 13-2286) was issued by the State of Idaho to SARC for construction of the dam(s).

In 1920, a lawsuit between Utah Power & Light Company vs. The Last Chance Canal Company resulted in the issuance of a Final Decree from the U.S. District Court of Idaho Eastern Division that summarized the existing water uses on the Bear River at that time in history. Listed in the Final Decree (No. 492, pg. 109) is an allotment of water to SARC from Battle Creek for both live flow and for storage (**Figure 4**). The listed volume of storage is 688 acre-feet and 1084 acre-feet, with respective priority dates of May 1, 1883 and July 21, 1917. Unfortunately, no direction is given in the Final Decree as how to identify or divide the amounts of storage between the existing dams.

It is important to note that the 1920 Final Decree supercedes the previous 1903 Decree that failed to assign measurable quantities of water, either for live flow or for reservoir storage. However, there is specific instruction in the 1920 Decree to indicate that the priority and amount of the appropriation is conditioned upon compliance by the SARC with the terms of Permit 13149 and Permit R-76. This language subjects the SARC to the "provisions of the laws of the State of Idaho governing the issuance of water licenses". When the 1920 Final Decree was issued, proof of completion had not yet been submitted for said permits. Thus, SARC was required to comply with state law in order to receive a License of Water Right from the state for the 1917 filing. The absence of similar language pertaining to the older 1883 priority date offers prima facie evidence that some type of a storage facility was in existence *prior* to Permit R-76, and that it impounded 688 acre-feet of water. That particular facility most likely was Dam #1. Even if two structures existed at that time, the 1920 Final Decree dictates that 688 acre-feet is authorized for storage; no more, no less.

The 1920 Final Decree served to identify all pre-existing appropriations for live flow and storage. State water law subsequently separated the various water uses into individual water rights and assigned to the SARC the following water rights:



Very little information is contained in the state dam safety records regarding the original configuration of any of these storage projects, except to note their locations. Whenever possible, office protocol is to assign project files a number based on the related water right. The dam safety file listed for Dam #1 is 13-2286, and the file for Dam #2 is 13-0140. No results can be found in IDWR database for Water Right 13-0140; the reason being it was superceded by the 1920 Final Decree. The state's dam safety program was initiated well after the 1920 Final Decree, and in retrospect dam safety file 13-0140 probably should instead have been assigned a different number (such as 13-2286-b).

In 1922 the SARC filed and was granted a permit extension in order to complete Dam #3. The following year, SARC submitted proof of completion for Dam #1 and Dam #2, and in June 1924, attorney Arthur Hart representing SARC for Dam #3 advised the state Commissioner of Reclamation W.G. Swendsen to "let the filing go and put on a new filing". Later that year (9/23/1924), the state issued to SARC a Certificate of Completion and Right to Store Water in Reservoirs #1 and #2 for an amount not to exceed 984.24 acre-feet (**Figure 5**). Note that this value is *less than* the amount listed in the 1920 Final Decree. Nonetheless, due to provisional language in the Final Decree, 984.24 acre-feet is the total legitimate storage capacity prescribed by the Certificate. In 1929, a letter from the Reclamation Commissioner to the SARC attorney mentions that Dam #3 was not constructed. The following decade consisted of a local drought, a national economic depression and a new State Reclamation Engineer named Mark Kulp.

In August 1940, Permit R-689 (WR13-2290) was issued to the SARC for enlargement of Dam #1 for an additional 1000 acre-feet storage. SARC filed a request for an extension of time in 1945 because construction had not been completed within the prescribed 5-year period. Publication of the extension request prompted the Twin Lakes Canal Company to protest the increased storage. A consequence of the hearing is the first independent confirmation from the State that describes the existing dimensions and storage capacities of the two dams, i.e. 1335 ac-ft in Reservoir #1 and 380 ac-ft in Reservoir #2 (**Figure 6**).

The extension of time was granted. Design plans and specifications were prepared for enlargement of the dam by Eugene Schaub, PE and approved for construction on October 29, 1947 by State Reclamation Engineer Mark Kulp. Based on the approved drawings, the proposed enlargement of Dam #1 would result in a total embankment height at maximum section approximately 39 feet (**Figure 7**).

The enlarged works were incapable of storing the full amount of 1000 acre-feet, and instead the added capacity was determined to contain just 577 acre-feet. Unfortunately, there are not any as-constructed drawings to illustrate asbuilt conditions or other calculations for determining the reservoir storage capacity of Dam #1 at the maximum pool. Two separate State Engineer's Reports were prepared in 1951 and 1953, respectively. The 1951 report lists the size dimensions for both dams, but fails to provide values for reservoir capacity. The younger 1953 report describes the sizes of the dams after Dam #1 was enlarged, and states unequivocally that the total storage capacity of the larger reservoir is 1850 acre-feet and that of the smaller dam is 400 acre-feet (**Figure 8**). I am unable to find evidence in the files as to how these values were calculated.

License of Water Right 13-2290 (Permit R-689) was issued on December 23, 1958 for 577.72 acre-feet storage for the enlargement of Dam #1. On the very same day, a separate License of Water Right 13-2286 (Permit R-76) was issued for 984.28 acre-feet reservoir storage, split between Dam No's 1 & 2 (**Figure 9**). Note that the priority date for the water right associated with Permit R-76 is NOT July 21, 1917. In addition, it appears that the storage values were adjusted slightly between the two water rights so that their sum would be a whole number without any remaining fraction (i.e. 1562 acre-feet).

In 1966, Permit R-1218 (WR13-2305) was issued to the SARC for further enlargement of Dam #1 by one foot height to mitigate reduced reservoir storage capacity caused by sedimentation. Design plans and specifications cannot be located for this construction. In June 1973 a License was issued for 154 acre-feet storage behind Dam #1 (Figure 10).

Most recently, on October 15, 1979 the SARC obtained another Water Right for per-annum storage of 600 acre-feet (13-2303). However, this right is for diversion of said quantity of water from Shingle Creek and Cottonwood Creek via their canal system. It is important to note that this water isn't "new" storage, nor does it constitute increased storage or enlarged reservoir capacity. The diverted water authorized by this water right can be used by the SARC *only* to supplement the storage capacity(s) of the existing reservoirs and *only* when there is insufficient water in Battle Creek to fill Strong Arm Reservoirs No's 1 and 2 (Figure 11).

In summary, although Water Right License 13-2286 allows storage to be split between the two projects, the combined amount can never exceed 984.28 acre-feet. Therefore, based on the sum total of valid water rights of record, the maximum allowable combined capacity for both of the projects, Strong Arm Dam #1 and Strong Arm Dam #2, is limited to only 2404 acre-feet, regardless the method or manner in which the Strong Arm Reservoir Company chooses to divide or balance the volume of water into or between the two reservoirs. Finally, it is important to note that until an independent survey acceptable to IDWR is performed for either Reservoir #1 or Reservoir #2 to revise the 1953 Engineer Report, the maximum allowable storage capacity for each project dam is 2004 acre-feet and 400 acre-feet, respectively. For Dam #1, 1850 acre-feet corresponds to the reservoir surface at the crest of the emergency spillway *without insertion of any flashboards*. For Dam #2, the pool level at the crest of the emergency spillway is 400 acre-feet. The following table represents the known water rights and priority dates for both dams:

--- Table A ---

	Dam No.1 (Big Dam)		Dam No. 2 (Small Dam)	
Other Name	Treasureton Reservoir		Off-Channel Reservoir	
Location	T14S R39E Section 2 Battle Creek		T14S R39E Section 9 Unnamed Trib. to Battle Creek	
Water Right(s)	13-929 (1920 Decree)	688 ac-ft	13-2286(9/17/1940)	400 ac-ft**
	13-2286* (9/17/1940)	584.28 ac-ft		
	13-2290 (8/29/1940)	577.72 ac-ft		
	13-2305 (2/8/1966)	154 ac-ft		
	Total →	2004 ac-ft	Total →	400 ac-ft

* Water Right 13-2286 represents 984.28 acre-feet combined storage capacity

** The division of storage in Dam #1 and Dam #2 is based on the 1953 Engineer Report

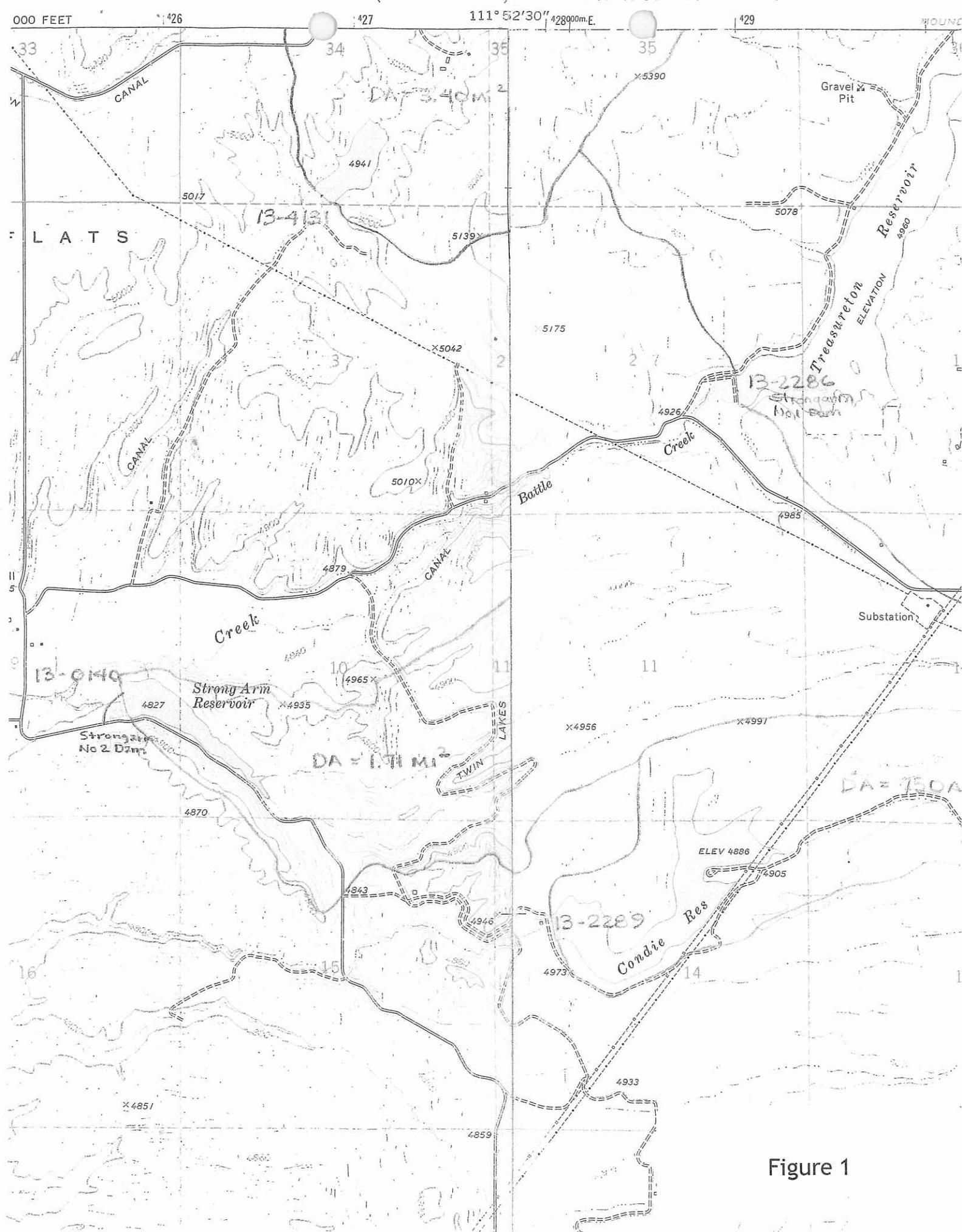


Figure 1

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT,
STATE OF IDAHO, COUNTY OF BANNOCK.

William M. Armstrong, W. S. Bean, and
William M. Armstrong and Isabella S.
Armstrong, as trustees under the last will
of Francis Armstrong, deceased, and Isabella
S. Armstrong, Elizabeth S. Bean, Isabella
A. Burton, Annie M. A. Irvingston, Mary H.
A. Madson, Emma L. A. Armstrong, Florence
G. Armstrong, Sarah E. Armstrong, and Irene
L. Armstrong and Robert Lee Armstrong, by
Isabella S. Armstrong, their guardian,
Plaintiffs,

vs.

DEBENT.

William Griffis, William Griffis, Jr.,
Charles Williams, Charles Williams, Jr.,
William Smith, William Treasur, John Edwards,
George Sant, George Sant, Jr., William Sant,
John Millington, and Ralph Gordon,
Thomas Kirby, and Benjamin Hymas,
Defendants.

This cause coming on regularly to be heard before the Court, and the Court
having taken the evidence of witnesses and being fully advised, and the Court having
made its findings of fact and conclusions of law, and ordered that a decree be
entered:

NOW, THEREFORE, in accordance with said findings of fact and conclusions of
law, it is hereby ordered, adjudged, and decreed:

That said defendants, and each of them, excepting William Griffis and William
Sant, have been regularly summoned to answer to plaintiffs' complaint, but have
defaulted in that behalf, and their default has been regularly entered.

That as to said defendants William Griffis and William Sant said plaintiffs
take nothing.

That plaintiffs are the owners of, in the possession, and entitled to the
possession of the following real property, to-wit:

The south half of the northwest quarter and the north half and the south-
west quarter of Section 10; the east half and the southwest quarter of Section 9;
the south half of Section 8; the north half of Section 17; the north half of the
south half of Section 17, and the southwest quarter of the southeast quarter, and the
southeast quarter of the southwest quarter of Section 17; the northeast quarter and
the south half of the northeast quarter of Section 7; the north half of the north-
east quarter of Section 13, Township 14 south, Range 29 east, Boise Meridian, County of
Oneida, State of Idaho.

13 0140 That plaintiffs are the owners of, in the possession, and entitled to the
possession, and have used for many years upon said property above described, all of
the waters, excepting as hereinafter stated, of that certain stream known as Battle
Creek, with all its springs, rivulets, and sources flowing into the same, said Battle
Creek being located in Bannock and Oneida counties, State of Idaho, and carrying
waters to said land.

13 0141 That plaintiffs are the owners of all of said waters during the whole of
each year, excepting as follows: That between the 20th day of June and the 20th day
of October of each year said defendants Charles Sant, Charles Williams, and John
Millington own and they are entitled to the use of enough water from said stream to
irrigate each one acre of land, aggregating in all three acres of land, during said
period, and no more water whatever than said amount, and excepting that between the
date of the 20th day of October and the 20th day of June of the succeeding year,
said defendants Charles Sant, Charles Williams, and John Millington own and are
entitled to the use of only the amount of water that was used by them and that was
necessary for the proper cultivation of the land owned and irrigated by them on the
20th day of August, 1895, and no more; and that the remaining defendants excepting
13 0142 Ralph Gordon, are entitled to all of the waters of said creek between said days,
October 20th and June 20th, excepting the water used by these plaintiffs for the
irrigation of their lands and for the filling of their reservoirs.

That said Ralph Gordon owns no right, title, or interest in or to said water,
or property, or any part thereof.

That plaintiffs' title in and to said property, water, and water rights as
above stated be and the same are hereby quieted as against said defendants, and each
of them, and they, and their agents, servants, and employees, are hereby enjoined from
interfering with said water or water rights owned by said plaintiffs.

Done this 23rd day of June, A.D. 1903.

Alfred Budge,
Judge.

Battle Cr
See Bear R. Decree
File 5-1

MAY 14 1906

13-2286

Application for a Permit to Construct the STRONG ARM Reservoir

And to Store the Unappropriated Waters of the State of Idaho

Application No. R 18704.
Permit No. R 76.
District No. 5 J.

1. Name of Applicant: Strong Arm Reservoir Company,
Postoffice Address: Preston, R.F.D. #2. County: Franklin. State: Idaho.
 - I. If applicant is a corporation, give:
 - (a) Date and place of incorporation: April 7, 1905. Preston, Idaho.
 - (b) Amount of capital stock: \$ 30000.00.
 - (c) Amount paid in: \$8350.00.
 - (d) Names and addresses of directors: Joseph Condie, Wm. A. Schulzberg, Julius Johnson, Jed Miles, Preston, Idaho.
 - II. The financial resources of the applicant are: (a) Cash on hand: \$ None.
(b) Treasury stock: \$ None. (c) Bonds to be issued: \$ None.
(d) Other resources: Stockholders to do work by Mutual labor.
 2. Quantity of water to be stored Seventeen hundred seventy two (1772) acre feet per annum.
 3. Source of water supply Battle Creek, which is a tributary of Bear River.
 4. Water is to be used for: Irrigation and domestic purposes.
 5. The outlet of the proposed reservoir is located N. 32° 19' E. 2694.9 from S $\frac{1}{4}$ Cor. Sec. 2, T. 14 S., R. 39 E.B.M. feet distant from the corner of Section, T., R., B. M., and is in the NE SE of Section 2, T. 14 S. R. 39 E.B. M., County of Franklin.
 6. Fill out either (a) or (b).
 - (a) The reservoir is located in the channel of Battle Creek.
 - (b) The reservoir is to be filled through the Strong Arm Feeder Canal, which has a width at bottom of 4 ft., width at top of 7 ft., depth of 1 $\frac{1}{2}$ ft., average grade per mile 80 ft., capacity 50 cubic feet per second.
 7. (a) The area of the high water line of the reservoir is #1- 78.1. #2- 42.3. #3- 53.2 acres.
(b) The available capacity of the reservoir is #1-607.37. #2-376.93. #3-787.25. Total 1771.55 acre feet.
#1-20' #2-30' #1-437' #2-745' #1-40' #2-30'
 8. Height of dam/ #3-45 feet; length of dam at top/ #3-660 feet; length of dam at bottom/ #3-20 feet.
Material used in dam: Earth & Rock.
 9. The estimated cost of proposed reservoir is \$ #1- 1000. #2- 2000 #3- 2500
 10. Amount of land to be irrigated 3882 acres; 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 5 years.
 13. The water stored in accordance with this permit will be conducted to the place of use through the Strong Arm canal, constructed under the terms of Permit No. 13149, filed by Strong Arm Reservoir Company on July 21, 1917.
- BE IT KNOWN That the undersigned hereby makes application for permit to construct a reservoir and to store the unap-
propriated waters of the State of Idaho as herein set forth.

Strong Arm Reservoir/ Company
Applicant.

By Herbert Wing

In the District Court of the United States for the
District of Idaho, Eastern Division.

UTAH POWER & LIGHT COMPANY,

Plaintiff

vs.

THE LAST CHANCE CANAL COMPANY,
Limited, et. al.

Defendants.

In Equity
No. 203.

FINAL DECREE

Before HON. F. S. DIETRICH,
District Judge.

Filed July 14, 1920.

W. D. McREYNOLDS,
Clerk.

By PEARL ZANGER,
Deputy.

DATE OF PRIORITY	AMOUNT IN SECOND FERT	POINT OF DIVERSION AND PLACE OF USE
		ter of Section 7, Township 13 South, Range 40 East.
492. <i>Strong Arm Reservoir Company,</i> a corporation:		To be diverted from the said Battle Creek in the Southeast quarter of Section 2, Township 14 South, Range 39 East, B.B. M., for the irrigation of 3300 acres of land in Sections 1 and 12, Township 14 South, Range 38 East, B.B.M., and Sections 6, 7, 8, 9, 10, 16, 17, 20, 21, 28, 29, Township 14 South, Range 39 East, B.B.M.
(a) 1874—May 1	2 c.f.s.	
1883—May 1	6 c.f.s.	
1883—May 1	688 ac. ft.	
(b) 1917—July 21	70 c.f.s.	Said waters to be diverted through the last above mentioned ditch, for the supplemen- tal irrigation of the lands last above de- scribed, provided, however, that the pri- ority and amount of these appropriations are conditioned upon a compliance with the terms of the permit upon which said appropriations are based, to-wit: Permit No. 13149 and Permit No. R-76, issued by the State Engineer of the State of Idaho, and the same are subject to the provisions of the laws of the State of Idaho govern- ing the issuance of water licenses by the Commissioner of Reclamation.
1917—July 21	1084 ac. ft.	
493. <i>David Sant:</i> 1870—May 1	2 c.f.s.	To be diverted from Sant Creek, a tribu- tary of Battle Creek, in the Southwest quarter of the Southeast quarter of Sec- tion 6, Township 14 South, Range 40 East, B.B.M., for the irrigation of 67 acres in the North half of the Southeast quarter of Section 1, Township 14 South, Range 39 East, and the North half of the Southwest quarter of Section 6, Township 14 South, Range 40 East, B.B.M., and the East half of the Southwest quarter of Section 1, Township 14 South, Range 39 East, B.B.M.
494. <i>George Sant:</i> 1870—May 1	2 c.f.s.	To be diverted from said Sant Creek through the ditch last above mentioned for the irrigation of 68 acres in the South half of the Southwest quarter, Section 6, Town- ship 14 South, Range 40 East, and the South half of the Southeast quarter of Section 1, Township 14 South, Range 39 East, B.B.M.
495. <i>Charles Shumway:</i> (a) 1870—May 1	4 c.f.s.	To be diverted from Branch Creek, a tribu- tary of said Battle Creek.

NOW, THEREFORE, I, W. G. Swendsen, Commissioner of Reclamation of the State of Idaho, by virtue of the authority vested in me under Senate Bill 232, Session Laws of 1921, hereby extend the time for completion of works under Permits to Appropriate the Public Waters of the State of Idaho, No. 13149 and R-76 to September 10, 1924.

WITNESS my hand this 1st day of September, 1922.

Geo. N. Carter,
Asst. Commissioner of Reclamation.

STATE OF IDAHO

CERTIFICATE OF COMPLETION OF RESERVOIR AND
RIGHT TO STORE WATER

Water District 5-J

Amount 984.24 A. F.

Priority 7-21-17

THIS IS TO CERTIFY that Strong Arm Reservoir Company, of Preston, State of Idaho, has made proof to the satisfaction of the Commissioner of Reclamation of Idaho, of a right to store the waters of Battle Creek, a tributary of Bear River, for the purpose of irrigation and domestic use, under Use Permit No. 13149, and Reservoir Permit No. 76 of the State Engineer, and that said right to store said waters has been perfected in accordance with the laws of Idaho and is hereby confirmed by order of the Commissioner of Reclamation of Idaho, and entered of record at Boise, in volume 1 of Reservoir Permits, at page 76, on the 23rd day of September, 1924; that the right hereby confirmed dates from July 21, 1917; that the amount of water entitled to be stored each year in Reservoir No. 1 and No. 2, under such right, for the purposes aforesaid, shall not exceed 984.24 acre feet.

That Reservoir No. 1 is located in Section 10, Tp. 14 S., R. 39 E., B. M. That Reservoir No. 2 is located in Sections 1 and 2 Tp. 14 S., R. 39 E. B. M. County of Franklin.

WITNESS the seal and signature of the Commissioner of Reclamation affixed at Boise, Idaho, this 23rd day of September, 1924.

W. G. SWENDSEN,
Commissioner of Reclamation

By: Geo. N. Carter,
Assistant

(SEAL)

PAID TO ORDER OF 984.24 A. F.
Pay 673

Jan file
E-9

August 27, 1945

Mr. C. L. Tucker
Senior Engineer Appraiser
Federal Land Bank of Spokane,
Spokane, 8, Washington.

Dear Mr. Tucker:

Reference is made to your letter of August 7th,
in regard to the Strong Arm reservoirs:

Our best information on these is as follows:

Strong Arm No. 1 has been raised to the height
shown by plans of their application made in 1940,
or to elevation 133.3 with water surface elevation
129.3, and outlet at bottom of dam 102.0. The capacity
of the reservoir at 129.3 elevation is 1335 acre feet.

Strong Arm No. 2 is approximately 30 feet high
and holds about 380 acre feet.

Very truly yours,

1333
102
31.3

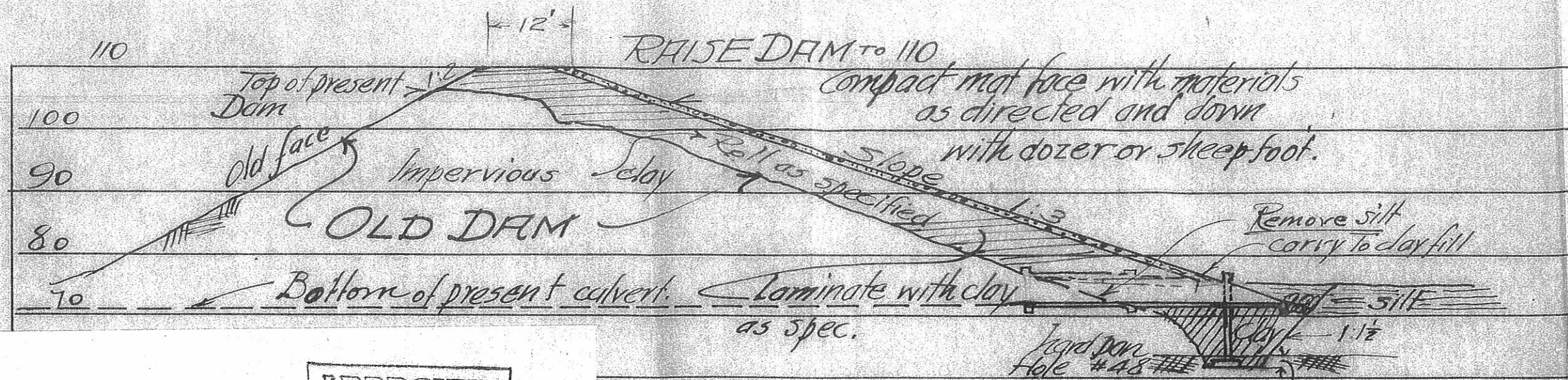
K:1A

MARK R. KULP
State Reclamation Engineer

~ IDAHO ~
 REPERMIT R689
 STRONG ARM RESERVOIR
 DAM
 EXTENSION OF BY INCREASING
 HEIGHT

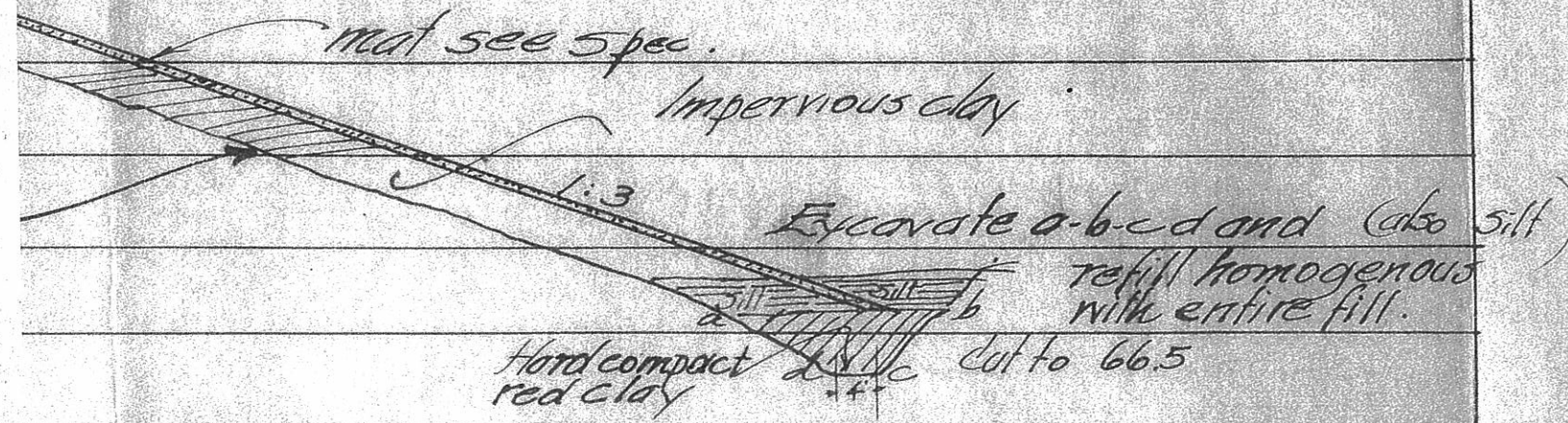
RAISE FROM 105-110
 WATER 101.8-106
 SHEET 1 OF 2 SHEETS

Nov. 1947



C. ON LINE 0+00

Scale 1"=20'



2+58

Scale 1"=20'

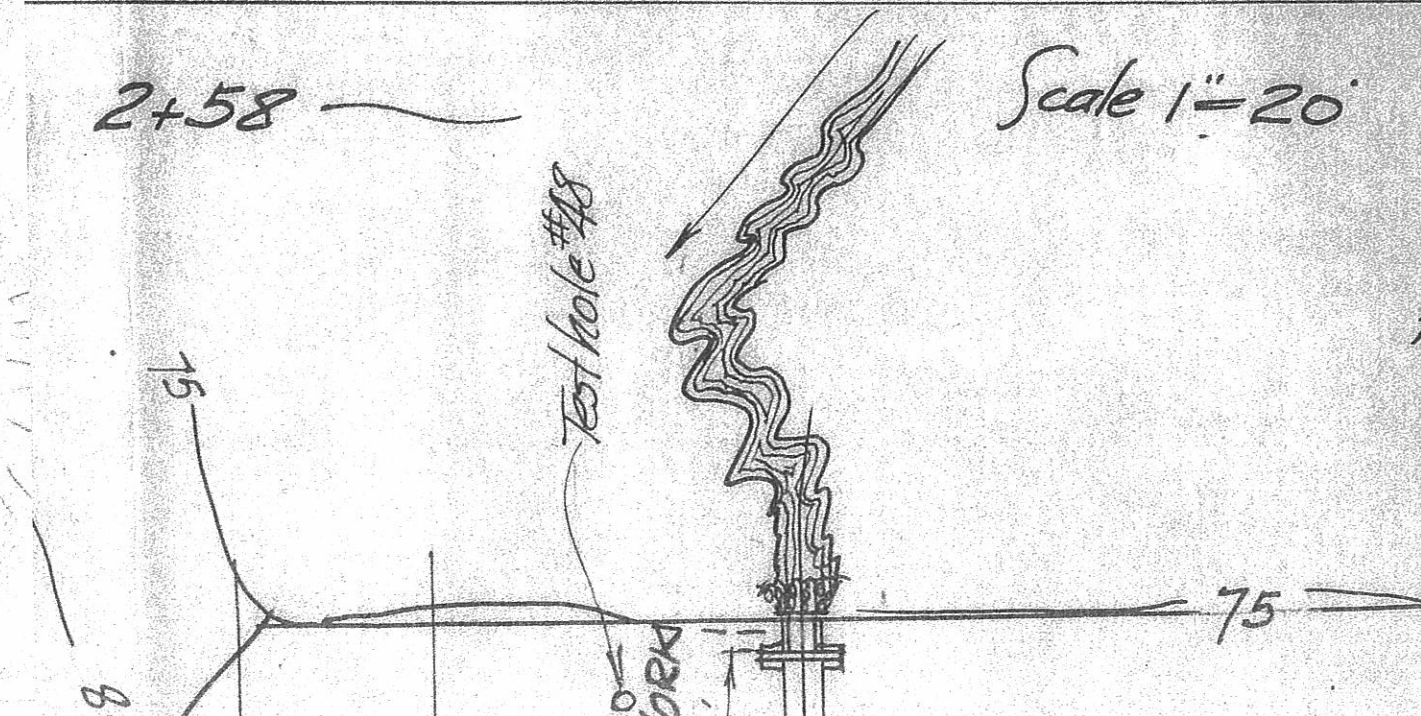


FIGURE 7

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE

REPORT OF ENGINEER

PERMIT NO. R 76

REPORT ON PROOF OF Beneficial use

984.28 Ac fr
M. R. K.

32-40'S -

6573

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE, IDAHO
REPORT OF ENGINEER

Permit No. E-76This proof is for Beneficial use In Water District No. _____1. Name of applicant Strong Arm Reservoir Irrigation District, Preston, Idaho2. Source of water supply: Battle Creek3. Location of point of ~~diversion~~ ^{outlet}: Is in the NW 1/4 of Section 3T. 14 S. R. 39 E. County of Franklin

4. Describe works as they exist, giving dimensions and capacities of same:

5. Water is used for: Irrigation and domestic purposes.

6. State whether or not water has been turned into works of diversion:

7. List legal subdivisions of lands to be irrigated. If proof is for beneficial use, give exact number of acres under cultivation in each forty-acre tract. (Describe manner and place of use if other than irrigation):

All land within the Strong Arm Reservoir Irrigation District system, located in
Township 14 South, Range 38 and 39 East, B.M.

(Submit map on attached plat, showing location and details of above description.)

8. What large stream would the water here appropriated finally reach?

Remarks: Capacity of large Reservoir is 1850 acre feet
See map of R. J. Wood (Drought Relief 1935)

Copy of smaller reservoir was estimated at Henderson
feet, C. H. H. and Joe Hedin in agreement
Total capacity of both reservoirs is 2250 acre feet

See Report in Dam File Feb 25-53This examination was made on the 25th day of Feb(Signed) C. H. Hedin

License 984.29 acre feet
under this Permit.

All requirements on both dams has been met

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
RECORD OF INSPECTION OF DAMS

Permit No. R-76

File No. E-9

Name of Dam: Strongarm Reservoirs Stream: Battle Creek

Name of Owner: Strongarm Res. Irrig. Dist. Location: Sec. 2, 14 S., 39 E.

Condition of Spillway: Good Spillway is partially filled with flash boards to maintain proper freeboard.

A good ditch leading from the spillway was built last year. Approx. 4 foot wide in bottom. Lots of fall. Gravelly, rocky bottom.

Condition of Outlet Works: Concrete arch type tunnel, size approx. 3' wide by 4' high at extreme top of arch. Control works are in a shaft in the dam.

Outlet on small dam = Hardisty control - west - in front center

Condition of Slopes: 177 yds long. x 32' h. Freeboard = 4' x 20' W

177 yards is extreme overall length on top of dam.

Small dam 225 yds x 23' high x 15' W

Spillway on smaller dam must be cut down a bit deeper before determining amount of freeboard.

Seepage: Total on large res. = 1850
" " " " = 400
2250

Capacity of large reservoir is 1850 acre feet. See Woods Drought Relief Map.

Capacity of smaller reservoir is estimated at 400 acre feet.

This amount was agreed upon by Joe Hedin and I.

General Conditions: Good. They have recently put on some good rip rap, on both dams.

Smaller dam has had a goodly amount of rebuilding work done on it in last year 1952.

Recommendations: License can be issued as soon as they lower the spillway approx. one foot (est.) on the smaller reservoir. All else appears to be in good order.

Reservoir is practically full on this date. They are spilling some for the Twin Lakes Canal Co., will receive some in exchange later.

Date: Feb. 25, 1953, 19

Inspected by
E. N.

FIGURE 8c

State of Idaho

License and Certificate of Water Right

Water License No. R-689

Amount 577.72 ac-ft.

Water District No.

Priority August 29, 1940

THIS IS TO CERTIFY that STRONGARM RESERVOIR IRRIGATION DISTRICT of Preston, Idaho, made application for a permit to appropriate and store public waters of the State of Idaho, dated August 29, 1940; that Permit No. R-689 was issued under said application; that Certificate of Completion of works, with a storage capacity of 577.72 acre second feet, was issued thereunder on December 23, 1958, showing that said works were completed on the 7th day of November, 1949; and that on the 7th day of November, 1949, STRONGARM RESERVOIR IRRIGATION DIST. By: Joseph C. Hedin, President

of Preston, State of Idaho, made proof to the satisfaction of the State Reclamation Engineer of Idaho, of the right to use the waters of Battle Creek, a tributary of Bear River, for the purpose of Irrigation and Domestic Use

, under Use Permit No. R-689 of the Department 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 State Reclamation Engineer of Idaho and entered of record in Volume 11 of Licenses at page 6574, on the 23rd day of December, 1958;

The right hereby confirmed dates from August 29, 1940;

Outlets are

The Point of Diversion is located (Reservoir #2 in Sec. 9, T14S-R39E, BM) Reservoir #1

in the NE 1/4, SE 1/4, Sec. 2, Tp. 14 S., R. 39 E., B. M. County Franklin

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 577.72 acre annuum cubic feet per second.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated		
14 S.	39 E.	10	SE $\frac{1}{4}$ NW $\frac{1}{4}$	40	40		
			SW $\frac{1}{4}$ NW $\frac{1}{4}$	40	40		
			NE $\frac{1}{4}$ SW $\frac{1}{4}$	20	20		
			SE $\frac{1}{4}$ NE $\frac{1}{4}$	40	40		
		9	SW $\frac{1}{4}$ NE $\frac{1}{4}$	40	40		
			SE $\frac{1}{4}$ NW $\frac{1}{4}$	10	10		
			NE $\frac{1}{4}$ SW $\frac{1}{4}$	40	40		
			NW $\frac{1}{4}$ SW $\frac{1}{4}$	30	30		
		8	SW $\frac{1}{4}$ SW $\frac{1}{4}$	40	40		
			SE $\frac{1}{4}$ SW $\frac{1}{4}$	10	10		
			NW $\frac{1}{4}$ SE $\frac{1}{4}$	40	40		
			SE $\frac{1}{4}$ SE $\frac{1}{4}$	40	40		
		7	NE $\frac{1}{4}$ SW $\frac{1}{4}$	10	10		
			NE $\frac{1}{4}$ NE $\frac{1}{4}$	20	20		
			NW $\frac{1}{4}$ NE $\frac{1}{4}$	20	20		
			NE $\frac{1}{4}$ NE $\frac{1}{4}$	10	10		
		2	NE $\frac{1}{4}$ SE $\frac{1}{4}$	5.5	5.5		
			SE $\frac{1}{4}$ SE $\frac{1}{4}$				
		14 S.	39 E.	6	SW $\frac{1}{4}$ NE $\frac{1}{4}$	5	5
					SE $\frac{1}{4}$ NW $\frac{1}{4}$	20	20
17	NW $\frac{1}{4}$ SW $\frac{1}{4}$			40	40		
	NE $\frac{1}{4}$ NE $\frac{1}{4}$			40	40		
	SW $\frac{1}{4}$ NE $\frac{1}{4}$			40	40		
	SE $\frac{1}{4}$ NE $\frac{1}{4}$			40	40		
	NE $\frac{1}{4}$ NW $\frac{1}{4}$			40	40		
	SE $\frac{1}{4}$ NW $\frac{1}{4}$			40	40		
	NE $\frac{1}{4}$ SW $\frac{1}{4}$			20	20		
	NW $\frac{1}{4}$ SE $\frac{1}{4}$			40	40		
1	NW $\frac{1}{4}$ SW $\frac{1}{4}$			27.5			
	SW $\frac{1}{4}$ SW $\frac{1}{4}$			40			
12	SW $\frac{1}{4}$ SE $\frac{1}{4}$			40			
	NW $\frac{1}{4}$ NE $\frac{1}{4}$			10			
		NE $\frac{1}{4}$ NW $\frac{1}{4}$	10				

FIG

Total number of acres irr

13 2290

FIGURE 9a

State of Idaho

License and Certificate of Water Right

Water License No. 13149 R-76

Amount 70 C.F.S. 984.28 ac-ft.

Water District No. _____

Priority September 17, 1940

THIS IS TO CERTIFY that STRONG ARM RESERVOIR COMPANY and store
of Preston, Idaho, made application for a permit to appropriate the
public waters of the State of Idaho, dated June 21, 19 17; that Permit No. 13149 & R-76
was issued under said application; that Certificate of Completion of works, with a carrying capacity of
984.24 ac-ft second feet, was issued thereunder on September 23, 19 24, showing that said works
were completed on the 16th day of September, 19 22; and that on the 7th
day of November, 19 49, STRONG ARM RESERVOIR COMPANY (DIST)
By: Joseph C. Hedin, President

of Preston, State of Idaho, made proof to the satisfaction of the
State Reclamation Engineer of Idaho, of the right to use the waters of Battle Creek
, a tributary of Bear River, for the purpose of Irrigation and Domestic Use
, under Use Permit No. 13149 & R-76 of the Department 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 State Reclamation Engineer of Idaho and entered of record in Volume

11 of Licenses at page 6573, on the 23 day of December, 19 58;

The right hereby confirmed dates from September 17, 19 40;

Outlets are

The Point of Diversion is located (Reservoir #2 in Sec. 9, T14S-R39E, BM) Reservoir #1

in the NE 1/4 SE 1/4, Sec. 2, Tp. 14 S., R. 39 E., B. M. County Franklin

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 984.28 ac-ft annum cubic feet per second.

Description and location of use:

Twp.	Range	Sec.	Forty-acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
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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 State Reclamation Engineer, affixed at Boise, Idaho, this

23rd day of December, 19 58.

/s/ Geo. N. Carter

State Reclamation Engineer.

(SEAL)

State of Idaho
Department of Water Administration

LICENSE OF WATER RIGHT

License of Water Right No. R-1218/13-2305 Priority Feb. 8, 1966 Amount 154 acre feet

THIS IS TO CERTIFY, that Strongarm Reservoir Irrigation District
of Preston, Idaho, has complied with the terms and conditions of Permit
No. R-1218/13-2305 issued pursuant to Application for Permit dated February 8, 1966,
and has submitted proof to the Department of Water Administration on December 10, 1970,
that he has applied water to a beneficial use; an examination by the Department indicates that the
works have a capacity of 154 acre feet, and that the water has in fact been applied to a
beneficial use; a right to the use of water from Battle Creek
tributary of Bear River is hereby confirmed in the following amounts:
Amount 154 af for Storage for from Nov. 2 to Mar. 31 (both dates inclusive)
Amount for Irrigation from to (both dates inclusive)
Amount 154 af for Irrigation from April 1 to Nov. 1 (both dates inclusive)
Subject, however, to the condition that no more than 154 acre feet of water be diverted at
any one time, said waters to be diverted within the Dam #1 (Copper)
NE1/4 Sec. 2, Twp. 14 S, Rge. 39 E, B.M.
in the county of Franklin and that the amount of water so diverted 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 154 acre feet per year.

Description and location of place of use: See Land List Attachment

TWP.	RANGE	SEC.	NE1/4				NW1/4				SW1/4				SE1/4				TOTALS
			NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	

Total number of acres irrigated 2,135

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 25TH day of

June, 19 73.


Director

AMENDED WATER RIGHT LICENSE

THIS IS TO CERTIFY, that STRONGARM RESERVOIR IRRIGATION DISTRICT
of Preston, Idaho, has complied with the terms and conditions of Permit
No. R-1144/13-2303 issued pursuant to Application for Permit dated January 18, 1963,
and has submitted proof to the Department of Water Resources on December 15, 1969,
that he has applied water to a beneficial use; an examination by the Department indicates that the works have a
capacity for the ~~diversion~~ ^{storage} of 600 acre feet of water from Shingle Creek (200 af)
Cottonwood Creek (400 af),
tributary to Bear River, and that the permit holder has applied to a beneficial use and
established a right to use water as follows:

Subject, however, to the condition that no more than 600 acre feet of water be ^{stored} ~~diverted~~ at any one time, and that the amount of water so ^{stored} ~~diverted~~ and to which such right is entitled and confirmed is for the purpose aforementioned and is limited to the amount which can actually be beneficially used and shall not exceed 600 acre feet per year, said waters to be ^{stored} ~~diverted~~ within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ (2 points), Sec. 8, Twp. 12S, Rge. 39E, B.M. _____ in the County of Franklin

[illegible]

Water shall be diverted under this license only when there is not sufficient water in Battle Creek to fill Strongarm Reservoirs 1 and 2.

Witness the seal and signature of the Director, affixed at Boise, Idaho, this 15 day of October, 19 79.

FIGURE 11