

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION
OF RIGHTS TO THE USE OF WATER FROM
THE BEAR RIVER BASIN WATER SYSTEM
RECEIVED

CIVIL CASE NUMBER 79576

Claim ID: 13-958

Date Rcd: 4/28/25

Receipt No: 7002003

Claim Fee: 50.00 By: mb

MAY 09 2025

**NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW**

IDWR/Preston

1. **Name of Claimant(s):** PacifiCorp
Phone: 801-220-7803
Mailing Address: 1407 W. North Temple, Suite 110, Salt Lake City,
UT 84116
E-mail Address: Buffi.Morris@PacifiCorp.com
2. **Date of Priority (mm/dd/yyyy):** 07/06/1908
3. **Source of water: Ground Water () or Other (x) (a)** Bear River
which is tributary to (b) Great Salt lake

4a. **Location of Point of Diversion**

T	R	S	QQ	Lot	County	Div. Name or Parcel
10 S	40 E	1	SWNE		Caribou	Grace Dam

5. **Description of existing diversion works.** The Grace Project consists of “(1) a 51-foot-high by 180-foot long rock-filled timber crib dam, with concrete core and a 120-foot-long central spillway section with 8-foot-high wooden flashboards; (2) a 250-foot-long earthen dam on the right abutment;... (5) a 26,000-foot-long, 11-foot-diameter flowline, consisting of 15,000 feet of steel and 11,000 feet of wood-stave pipeline;... (8) a 53-foot by 148.5-foot powerhouse containing three vertical Francis units, each with an installed capacity of 11 MW...” *See Order Approving Settlement Agreement and Issuing New License, 105 FERC ¶ 62,297, December 22, 2003 (“FERC License”).*

6. **Water is claimed for the following purposes:**

Purpose	From (date)	To (date)	cfs	(or) acre feet
Power	1/1	12/31	500	

7. **Total quantity claimed (a) 500 (cfs) and/or (b) (acre feet)**

The Dietrich Decree authorizes 500 cfs, for the “generation of electric power or energy, and returned to the channel of Bear River.” Dietrich Decree at 17.

8. Non-irrigation uses; describe fully:

This right authorizes diversion and release of water for power generation. The Grace powerhouse consists of three generating units, with 33 megawatts of total capacity with a hydraulic head of approximately 500 feet.

9. Description of Place of Use

			NE				NW				SW				SE				Total
Twp	Rge	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Total
10S	40E	21									P								

Parcel no(s):**Total Acres** N/A

Place of Use for Power as described by the FERC License.

10. In which counties are lands listed above as the place of use located? Caribou County, Idaho.

11. Do you own the property listed above as place of use? Yes (X) No ()
If “no” explain in Remarks

12. Describe any other water rights used at the same place and for the same purposes as described above.

The following two decreed water rights, 13-957 and 13-958, provide water rights for a total plant capacity of 1,000 cfs at the Grace Plant. Power from Storage and Power Storage is included in a new claim. See list under Section 13 for more details.

or None ()

13. Remarks (include an explanation of the priority date selected):

Remarks to aid in claims review:

1. Priority date: Consistent with the court decrees in *Utah Power & Light Co. v. Last Chance Canal Co., Ltd.*, (D. Idaho July 14, 1920) (In Equity No. 203) (“Dietrich Decree”), and further recognized in *Utah Power & Light Co. v. Richmond Irrigation Co.* (1st. Jud. Dist. Utah Feb. 21, 1922) (“Kimball Decree”).
2. Point of Diversion is per aerial imagery at the present dam. The present dam is a reconstruction that is downstream of the original dam and is located in the quarter section originally described in the Dietrich Decree.
3. Diversion works description is per the FERC License and represents the diversion works in place as of June 14, 2021.

4. Three Bear River Basin Adjudication claims are presented for Power, Power Storage, and Power from Storage for use at the Grace Plant. The three rights together relate as follows:

13-957	500 cfs (Power)
13-958	500 cfs (Power)

NEW	1050 af (Power from Storage)
	655 af (Power Storage)

5. The Dietrich Decree indicates two wood-stave pipelines, but the system now operates with one large 11-foot wood-stave pipeline. The attached excerpts from a 1942 book on wood-stave pipelines indicates that 11-foot pipe has adequate capacity for the combined decreed diversion rate.

6. Megawatt capacity is from the FERC License. Hydraulic head is estimated as follows:
- Height of southern surge tower 132 feet per FERC License;
 - Elevation at surge tower 5,425 from written notation on topo map;
 - Elevation at power plant 5,040 feet scaled from topo map.

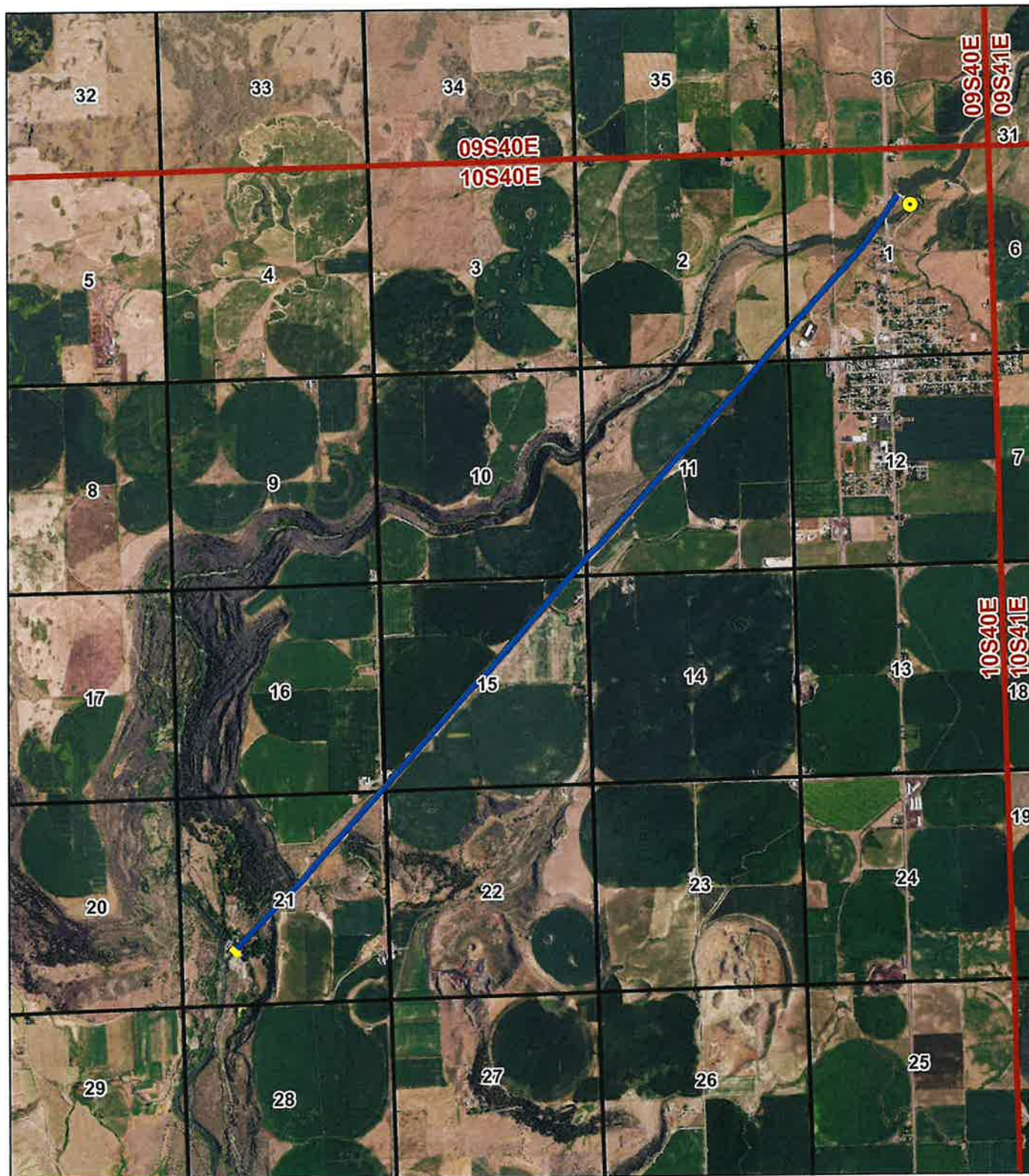
$(5,425 + 132 - 5,040) = 517$ feet. This was rounded down to 500 to accommodate an allowance for friction losses.

7. In addition to the primary non-irrigation use for Power, there are small non-consumptive uses of water inside the plant for cooling of the generators and other equipment that requires water for non-evaporative cooling. These additional uses are deemed implicit in the decreed power use.
8. The combined decreed diversion rate for 13-957 and 13-958 is 1,000 cfs. Attached excerpts from the FERC License documentation indicate a combined hydraulic capacity of 960 cfs for the three units at the power plant. The full decreed rate of flow is claimed to accommodate an approximate 10% variation in turbine efficiency as turbine seals wear, and to accommodate normal seepage from the wood-stave portion of the flowline.
9. There are four attachments to this claim:
- Affidavit of Connely K. Baldwin, PacifiCorp Hydrologist and Senior Project Manager, describing general system operation, ongoing use of the right, and calculation of claimed volumes;
 - Annotated excerpts from the FERC License;
 - Annotated excerpts from the Dietrich Decree;
 - Excerpts from 1942 book on wood-stave pipelines.

Conditions necessary to the definition and administration of the right.

1. The diversion rate under this right is not subject to a combined-use limitation.

2. This right is not subordinated under Idaho law, but its use may be governed by agreements that are not enforced by Idaho Department of Water Resources.
3. Power use includes water from various sources.
4. The administration of this right is further defined in the Dietrich Decree.
5. PacifiCorp is the decreed appropriator and fee title owner of the water rights. Among other beneficial and operational uses, PacifiCorp distributes water under its rights among several irrigators and irrigation entities in Idaho and Utah. The interests of the irrigators and irrigation entities are defined exclusively by contract.
6. This water right includes non-consumptive components for power generation and non-evaporative cooling at the Power Plant.



- Point of Diversion
- Place of Use
- Conveyance System
- PLSS Twp & Rng
- PLSS Sec

Grace Power Plant

Claim Map Overview

Claim Numbers: 13-957, 13-958, New Claim

0 2,450 4,900 9,800 Feet

Source Data:
 Base Maps
 USDA NAIP 2021
 IDWR Cadastral Survey 2017
 POU and POD User Generated

Projection:
 UTM NAD83 Z12



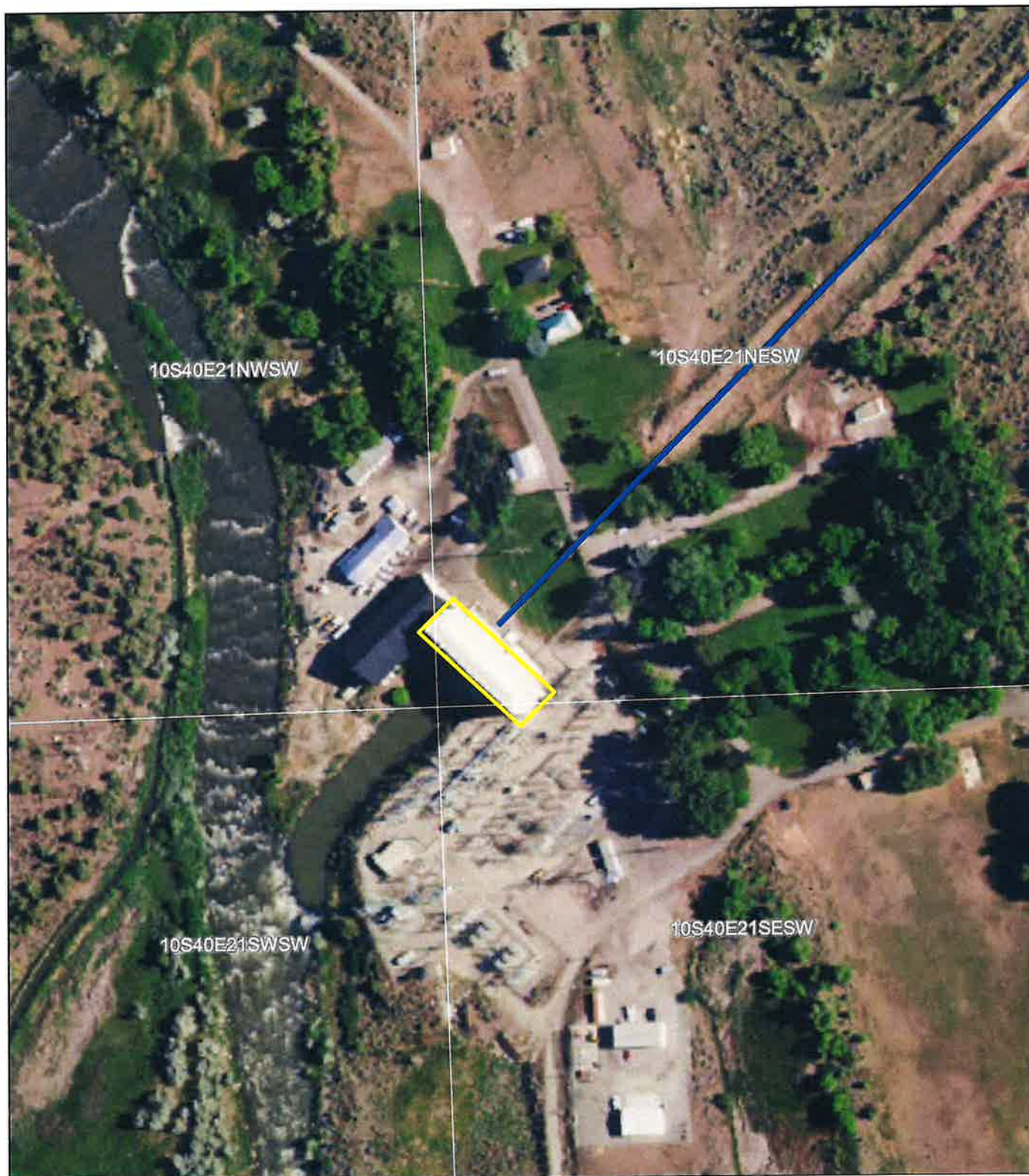
-  Point of Diversion
-  Conveyance System
-  PLSS Twp & Rng
-  PLSS Sec
-  PLSS QQ

Grace Power Plant **Claim Map - POD Detail** **Claim Numbers: 13-957, 13-958, New Claim**

0 280 560 1,120 Feet

Source Data:
 Base Maps
 USDA NAIP 2021
 IDWR Cadastral Survey 2017
 POU and POD User Generated

Projection:
 UTM NAD83 Z12



- Place of Use
- Conveyance System
- PLSS Sec
- PLSS QQ

Grace Power Plant

Claim Map - POU Detail for Power

Claim Numbers: 13-957, 13-958, New Claim

0 135 270 540 Feet



Source Data:
 Base Maps
 USDA NAIP 2021
 IDWR Cadastral Survey 2017
 POU and POD User Generated

Projection:
 UTM NAD83 Z12

14. Basis of Claim (Check one)

Beneficial Use	()
Posted Notice	()
License	()
Permit	()
Decree	(X)

Court United States District Court for Idaho, Eastern Division

Plaintiff v. Defendant Utah Power & Light Co. v Last Chance Canal Co. LTD

Utah Power & Light Co. v. Last Chance Canal Co., Ltd., (D. Idaho July 14, 1920)
(In Equity No. 203) (“Dietrich Decree”)

Decree Date July 14, 1920

IDWR WR number if applicable 13-958

15. Signatures

(a) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notices in the Bear River Basin Water System Adjudication."

(b) I/We do (☒) do not (☐) wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: 4

For Organizations: I do solemnly swear or affirm under penalty of perjury that I am, and that I have signed the foregoing document in the space below as the Senior Property Agent / Water Rights Administrator of PacifiCorp and that the statements contained in the foregoing document are true and correct.

Signature of Authorized Agent Buffi Morris Date May 8, 2025
C22DC3BB01B343B...

Printed Name of Authorized Agent Buffi Morris

16. Notice of Appearance

Notice is hereby given that I, Erika Malmen, will be acting as attorney at law on behalf of the claimant signing above, and that all notices required by law to be mailed by the director to the claimant signing above should be mailed to me at the address listed below.

Signed by:
Signature Erika Malmen Date May 8, 2025
E8C5C9BE14464A8...

Address: Perkins Coie LLP, c/o Erika Malmen, 1111 W. Jefferson Street, Suite 500, Boise, ID 83702

Attachment 1

Erika E. Malmén, Bar No. 6185
EMalmén@perkinscoie.com
Sarah A. Hugues, Bar No. 10435
SHugues@perkinscoie.com
Perkins Coie LLP
1111 West Jefferson Street, Suite 500
Boise, Idaho 83702-5391
Telephone: +1.208.343.3434
Facsimile: +1.208.343.3232

Attorneys for PacifiCorp

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT
OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

IN RE: THE GENERAL ADJUDICATION
OF RIGHTS TO THE USE OF WATER
FROM THE BEAR RIVER BASIN WATER
SYSTEM

CASE NO: 79576

**AFFIDAVIT OF CONNELLY K.
BALDWIN IN SUPPORT OF
PACIFICORP'S GRACE
WATER RIGHTS CLAIMS**

I, Connely K. Baldwin, certify and state as follows:

1. My current job title is Hydrologist & Senior Project Manager at PacifiCorp. I have held this position since 2018. I began the Hydrologist role in 2003. Since 2003, I have been responsible for water management at the Grace power plant. In addition to general water management, my duties include assuring the quality of streamflow and reservoir elevation data and many other aspects of power production such as development of efficiency curves, evaluation of emergency backup power capabilities and identification of optimal operation parameters. I have been continuously responsible for managing the irrigation deliveries of natural flow and supplemental water from Bear Lake which pass through the Grace power plant generation units and I have provided regular reports on Bear River operations to the Bear River Commission. For approximately 2 years I have personally created the daily power operations

AFFIDAVIT OF CONNELLY K. BALDWIN IN SUPPORT OF PACIFICORP'S GRACE
WATER RIGHTS CLAIMS- 1

164791549.3

schedule used for daily operations at Grace. I currently coordinate with the Grace power scheduler about daily power scheduling and provide advice on modifications that are periodically required.

2. The Grace power plant consists of three electric generating units of 11 MW each for a total of 33 MW, with hydraulic head of approximately 484 feet.

3. Since 2003 I have observed that the Grace power plant has been maintained at its full original capacity and can be utilized to its full capacity whenever water supply and electricity demand allow. There are periods of time when repairs temporarily limit plant capacity, but these always conclude with a return to full capacity. I have also observed that the plant generates power with any water that comes down the Bear River, regardless of its source, be it natural flow or Bear Lake storage water deliveries for downstream irrigation use.

4. Regarding the Grace Reservoir, total storage is estimated to be 655 acre-feet. Active storage between high water (approximately 5555.6 feet) and low water (approximately 5554.4 feet) is estimated at 302 acre-feet and dead storage below low water is estimated to be 353 acre-feet. Power From Storage is 1,050 acre-feet which is enough for all cycles of drawdown and refill that occurred in the most extreme 12-month period (November 1, 2017 through October 31, 2018). The explanation for these calculations is attached as Exhibit A.

5. Additional water management context for the Bear Lake operations within the Bear River basin may be helpful. PacifiCorp owns and operates the Lifton pumping station on Bear Lake Reservoir as well as the associated canals, dams and headgates necessary to divert all Bear River water into Bear Lake Reservoir, manage water levels in Bear Lake Reservoir (which includes Mud Lake Reservoir) and return water back to the Bear River. Bear Lake is a natural lake operating as an off-channel reservoir relative to the Bear River water. PacifiCorp operates

Bear Lake Reservoir primarily for irrigation and power generation. All available Bear Lake storage water released for any purpose is used to its maximum extent for power generation at all other PacifiCorp Bear River power plants.

6. PacifiCorp's operation at Bear Lake Reservoir is designed to capture and store spring runoff each year and return water to the Bear River later during the irrigation season to provide supplemental water from storage such that the natural flow of tributaries downstream of Bear Lake is adequate for the full irrigation of lands served by the canal companies which hold irrigation water delivery contracts with PacifiCorp, subject to the availability of water. During periods of high inflow into Bear Lake Reservoir in excess of downstream needs, the excess flow can be passed downstream or stored in Bear Lake Reservoir. When Bear Lake Reservoir elevation exceeds operational targets after high runoff periods, water is released from storage to allow for flood control operations.

Date: 4/29/2025

Connely K. Baldwin
Typed/Printed Name

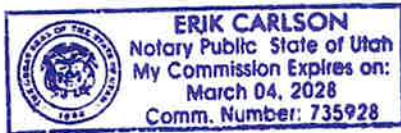

Signature

State of Utah

County of SALT LAKE

On the 29th day of April, 2025, before me, the undersigned Notary Public, personally appeared Connely K. Baldwin, proved on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged to me that s/he executed the same.

Witness my hand and official seal.





Notary Public for Utah

EXHIBIT A TO AFFIDAVIT OF CONNELLY K. BALDWIN IN SUPPORT OF PACIFICORP'S GRACE WATER RIGHTS CLAIMS

PacifiCorp Calculations of Reservoir Storage Components and Power from Storage for Grace Reservoir

Grace Reservoir has no known bathymetry or elevation-contents information. The bulk of the extant information is incomplete or on an unknown elevation datum and ultimately not useful for a defensible estimate of reservoir storage. This document describes the approach to estimate the total reservoir storage including active and dead storage components, using relevant information available from historical plans and documents. The mass balance method is used to calculate the active storage, while a trapezoidal geometric model of the volume below the active storage pool is used to calculate the dead storage. The total reservoir volume is calculated to be 655 acre-feet, comprising 353 acre-feet of dead storage and 302 acre-feet of active power storage. The raw data and spreadsheet calculations are available upon request. Also described is the methodology used to calculate power from storage, 1,050 acre-feet.

Active Storage

The active storage can be calculated from a mass balance for the reservoir when the elevation is varied throughout its full active range in a short period of time. The calculations and results are also informed and confirmed by geographic features drawn from Google Earth.

The active storage was calculated by drawing down the reservoir in a planned manner with known inflows and outflows. Inflows were calculated as the gaged flow below Soda plant less Last Chance Canal Company irrigation diversion rate (at both diversion points, Last Chance canal and Bench "B" canal). The outflow was the sum of the generation flow, the flow passing below the dam past PacifiCorp's streamflow gage and leakage flow from the wood-stave flowline. The leakage was estimated from inflow and outflow data during the period before drawdown when the reservoir was in equilibrium. The known inflow and outflow are used to calculate the change in storage at each elevation reading during the transition throughout the active storage pool elevation range. Figure 1 shows the time variation of the three inputs and Figure 2 shows the elevation and computed change in storage.

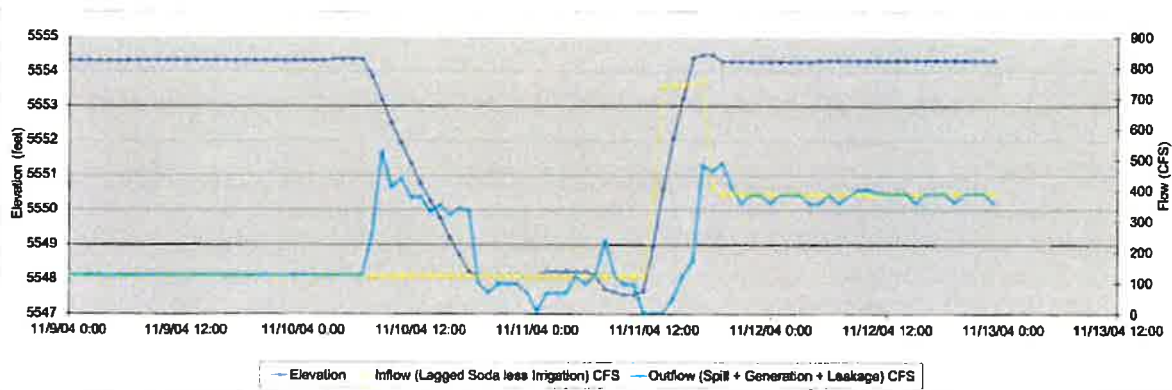


Figure 1. Grace Reservoir mass balance inputs over time during planned variation event.

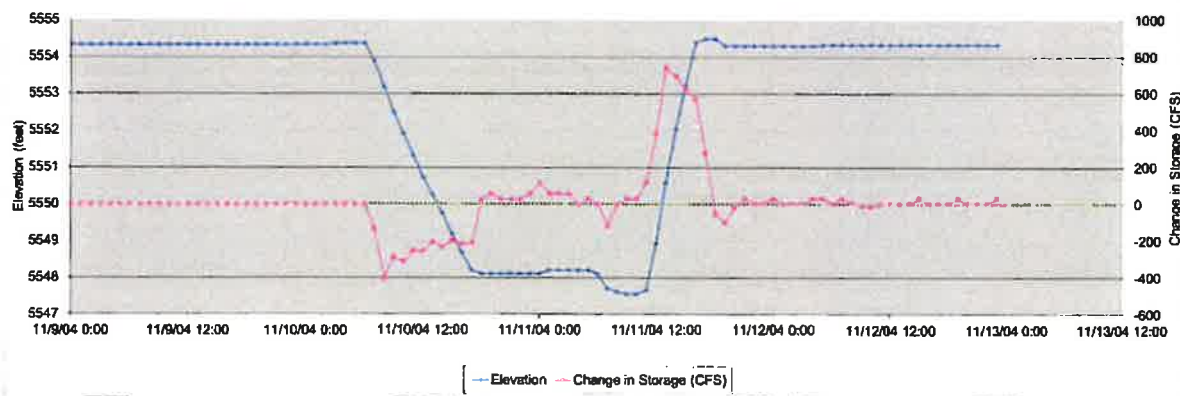


Figure 2. Elevation and change in storage for the planned variation event.

The cumulative change in storage is plotted as a function of the elevation change for both the drawdown and refill periods separately (Figure 3). These represent somewhat independent estimates of the stage-storage relationship. The relationship between the two is similar and appears quite linear.

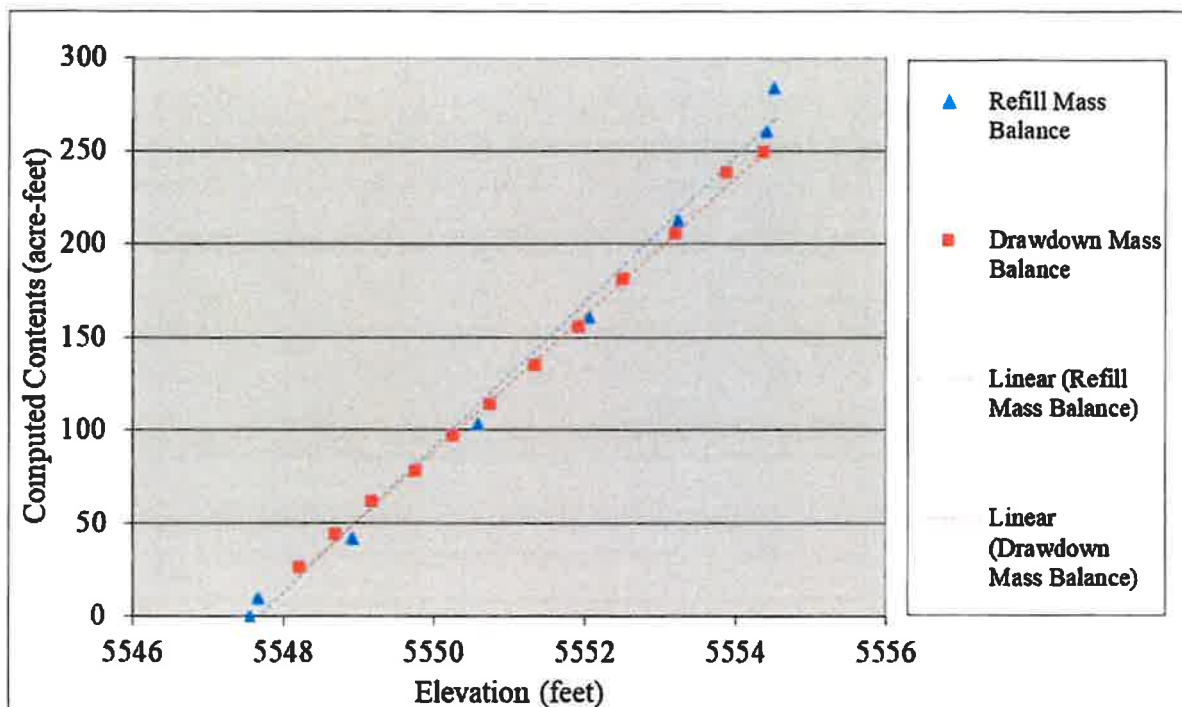


Figure 3. Cumulative change in storage as a function of the elevation change with linear regression lines and equation for both the drawdown and refill periods separately highlighting the similarity.

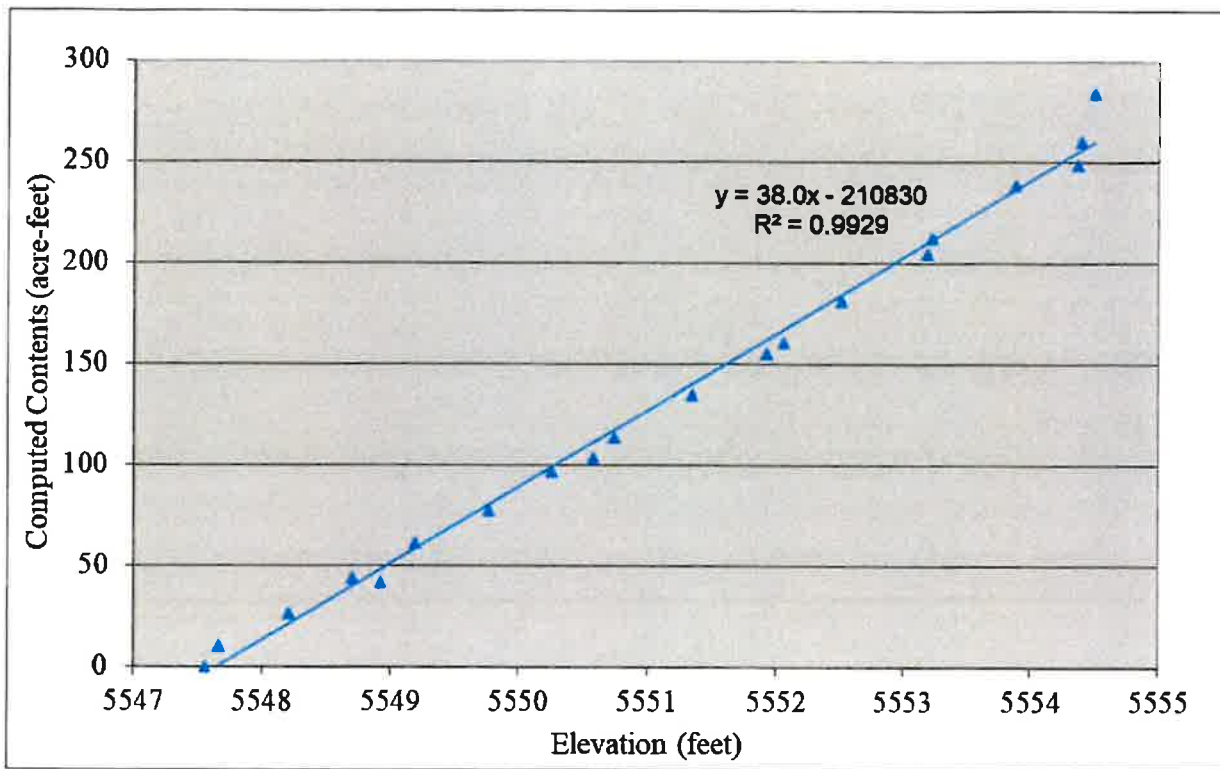


Figure 4. Cumulative change in storage as a function of the elevation change with linear regression lines and equation.

The linear regression equation for elevation-contents using the drawdown and refill sequences combined is shown in Figure 4. The linear regression equation implies that the area of the reservoir is relatively constant within the active storage elevation at 38.0 acres, with nearly vertical side slopes.

As a check on this result, the surface area of the reservoir at normal pool was determined from Google Earth as shown in Figure 5. The upstream end of the reservoir is at the second Last Chance Canal Company flume going upstream. This is where a riffle pool is visible from the Google Earth image, which is the same location for the end of the reservoir indicated in PacifiCorp's Federal Energy Regulatory Commission license documents.

The area determined from Google Earth was from an image taken July 19, 2016 when the reservoir elevation was at 5,554.4 feet, within 0.1 feet of normal full pool. The area was 37.1 acres (after subtracting 0.1 acres for a small remnant of the former channel in the reservoir near the right intake channel excavation). The difference between this area and 38.0-acre area implied by the mass balance equation is 2.4% and is consistent with the mass balance estimate, which did not use any geographic information.



Figure 5. Google Earth map of digitized area and centerline for Grace Reservoir and river channel width estimate locations for Grace Reservoir. The river channel lines are very small, but visible, below the dam and just slightly within the blue reservoir area at the upstream end.

The final active storage volume is calculated using the linear regression equation shown in Figure 4. While the normal max elevation is 5,554.5 feet, during high runoff periods the reservoir level rises to 5,555.6 feet, its recent observed maximum elevation on September 14, 2022. At this maximum elevation, the contents per the equation is 302 acre-feet, the total active contents of Grace Reservoir.

Dead Storage

The dead storage cannot be determined in the same method as the active storage due to the lack of information on bathymetry and the inability to perform a mass balance estimate as above. Instead, a geometric model is used.

While the active storage capacity calculations implied vertical side walls, the river channel upstream and downstream of the dam reveals a sloped side from erosion or sediment deposition. Hence, below the active storage pool a (3-d) trapezoidal model is used to estimate dead storage. A visualization of the trapezoidal model is shown in Figure 6. For calculation purposes, the trapezoid is assumed to be linear. While there are deviations from these assumptions, the image in Figure 5 shows that the deviations should be offsetting and not introduce undue error into the volume estimate since the

deviations from the assumption are nearly equally distributed to the left and right of a line drawn from the upper end of the reservoir.

Trapezoidal Model of Dead Storage Portion of Grace Reservoir

Assume linear change in elevation of bottom of reservoir, with constant top and bottom widths. 2-d trapezoids are shown with connecting lines along the bottom to help visualize the model.

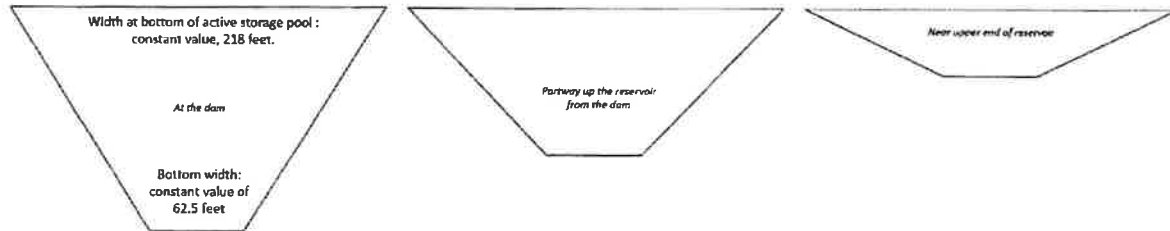


Figure 6. Visualization of the trapezoidal model of the dead storage portion of Grace Reservoir.

The key inputs for the model are the top width of the reservoir, the bottom width of the reservoir and the associated elevations of each width. Since the bottom of the active storage pool is known, 5,547.5 feet, the widths and bottom elevation are determined as described below.

The average top width is calculated as the implied area from the active storage calculation of 38.0 acres, divided by the length of the centerline from the dam to the upper limit of the reservoir (red line in Figure 5, 7,592 feet), resulting in an average top width of 218 feet. While the actual top width does vary somewhat near the dam and near the upper end of the reservoir, it is largely constant throughout the majority of the reservoir, as seen in the aerial photograph.

The bottom elevation of the reservoir is determined from drawings associated with building the right intake structure which included elevation information about the reservoir bottom and is found to be 5,518.6 feet.

The bottom width of 62.5 feet is the average channel width immediately below the dam (64.6 feet) and at the river channel at the upper end of the reservoir (60.3 feet), taken from the same July 19, 2016 image from Google Earth and visible in Figure 5.

The 3-d trapezoid is numerically integrated by dividing the 3-d trapezoid into 26 equal cross-sectional volumes and calculating the average depth and width of each section. The subsequent subsection volumes are summed to provide the final result of 353 acre-feet of dead storage.

Power from Storage

A narrative explanation of the calculations for power from storage follows, similar to documents submitted for Alexander and Oneida Narrows Reservoirs. The spreadsheet containing the data and calculations is available upon request.

Data Inputs

The daily reservoir elevation readings (a single instantaneous value at midnight, end of the day) comes from reviewed electronic data. The elevation is used determine the contents. The change in storage is the difference between today's contents and yesterday's contents. The power flow comes from daily average discharge at the

PacifiCorp-managed gaging station which is operated to United States Geological Survey standards and is overseen by the United States Geological Survey pursuant to PacifiCorp's Federal Energy Regulatory Commission license. The United States Geological Survey has made two check discharge measurements at each site every year since 2014.

The period of record used is January 1, 2016 through September 30, 2021, reflecting a 5-year period of interest for adjudication purposes. The maximum 12-month period for Grace Reservoir is November 1, 2017 through October 31, 2018.

Calculations and Results

First, day-to-day change in storage contents is calculated using the active capacity table formula above. This quantity is then limited to the amount that can be explained by generated power and not spilled. That way, a spill that reduces storage contents does not generate power is not counted as part of the "power from storage" volume.

Second, a formula is applied to the change in storage from power so that only the drawdown volume and not the subsequent refill is counted.

Third, the day-to-day reservoir releases attributable to power generation are summed to create a rolling 12-month total, calculated on the first of every month in the period of record.

The final result is the maximum power from storage calculated in the previous step which is then rounded to three significant digits to reflect the precision of measurement. The 12-month period for which the maximum occurs is also reported.

The maximum 12-month period power from storage for Grace Reservoir is 1,050 acre-feet for the period November 1, 2017 through October 31, 2018.

Summary

The total reservoir volume is calculated to be 655 acre-feet, comprising 353 acre-feet of dead storage and 302 acre-feet of active power storage. The active storage was calculated using a mass balance during a drawdown and refill event. The dead storage was estimated from a trapezoidal model of the reservoir below the active storage elevation limit. The power from storage is 1,050 acre-feet.

Attachment 2

105 FERC ¶ 62,207
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp

Project No. 20-019
Project No. 2401-007
Project No. 472-017

ORDER APPROVING SETTLEMENT AGREEMENT AND
ISSUING NEW LICENSE

Issued December 22, 2003

1. PacifiCorp has filed applications for new licenses, pursuant to Sections 4(e) and 15 of the Federal Power Act (FPA),¹ for the continued operation and maintenance of the Soda Project No. 20, Grace/Cove Project No. 2401, and Oneida Project No. 472. The projects are located on the Bear River in Caribou and Franklin Counties, Idaho. The three projects have installed capacities of 14,000 kilowatts (kW), 40,500 kW and 30,000 kW, respectively. Although the projects have been operated under separate licenses, PacifiCorp is seeking a single new license that would encompass all three projects (four developments) and has renamed them the Bear River Hydroelectric Project.² The project currently occupies 510.5 acres of federal lands managed by the U.S. Department of the Interior's Bureau of Land Management.

2. On September 26, 2002, PacifiCorp filed a comprehensive Settlement Agreement (Agreement) signed by sixteen participants to the relicensing process. For the reasons discussed below, this order approves those portions of the Agreement, with modifications, that the signatories requested be made part of a new license and issues a new license for the Bear River Hydroelectric Project.

¹16 U.S.C. §§ 797(e) and 808, respectively.

²The four developments are hydrologically and electrically connected. In the Explanatory Statement filed with the Offer of Settlement on September 26, 2002, the licensee and the other signatory parties formally requested that the projects be consolidated into one project designated as the Bear River Hydroelectric Project No. 20. The existing projects will hereinafter be referred to as separate developments of the Bear River Project No. 20 -- the Soda Development, the Grace Development, the Cove Development, and the Oneida Development.

			Dam, Plan & Downstream Elevation
--	--	--	--

2. Grace Development

- (1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by the following Exhibit G drawings included in the application for new license for Project No. 2401, filed on September 27, 1999.

<u>FERC's new Exhibit Label</u>	<u>Licensee's original Exhibit Label</u>	<u>FERC Drawing No. 20-</u>	<u>Showing</u>
G-2	G-1	1004	Project Boundary

- (2) Project works consisting of: (1) a 51-foot-high by 180-foot-long rock-filled timber crib dam, with a concrete core and a 120-foot-long central spillway section with 8-foot-high wooden flashboards; (2) a 250-foot-long earthen dam on the right abutment; (3) a forebay with 250 acre-feet of usable storage capacity at a surface elevation of 5,555 feet (USGS datum); (4) a 52-foot-wide intake structure contained within a concrete stucco building, adjacent to the earth embankment section of the dam, containing eighteen 5-foot by 10-foot screen sections; (5) a 26,000-foot-long, 11-foot-diameter flowline, consisting of 15,000 feet of steel and 11,000 feet of wood stave pipeline; (6) two surge tanks, one 10 feet in diameter and 38 feet high, located about 2.6 miles downstream of the diversion, and the other 30 feet in diameter and 132 feet high, located directly above the powerhouse; (7) three 90-inch-diameter steel penstocks, equipped with two butterfly valves; (8) a 53-foot by 148.5-foot powerhouse containing three vertical Francis units, each with an installed capacity of 11 MW and a hydraulic capacity of 320 cfs; (9) a tailrace consisting of a short concrete-lined section that transitions to an unlined open channel section; and (10) a substation containing step-up transformers and circuit breakers, located immediately adjacent to the powerhouse, which also serves as the point of interconnection to the transmission grid system.

Attachment 3

This is a duplicate copy
made of the original because
of the poor quality of orig. from wear & tear.
~~Original can be found in this same file.~~
numbered copy

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.

MAY 14 1936

3. In addition to the storage rights of plaintiff, herein decreed, the waters of Bear River and its tributaries between the points hereinbefore described, as drawn within the jurisdiction of this court for distribution under this decree, are hereby allotted and decreed for the various beneficial uses herein specified, without waste, to the plaintiff and defendants, respectively, and their successors in title and interest, in the amounts, for the purposes, and with the priorities, established and prescribed by the "Schedule of Rights" hereinafter defined.

The rights herein decreed and recognized are designated and classified as "Power Rights," "Irrigation Rights" and "Domestic Rights," respectively, and shall have the following characteristics:

"Power Rights" include the right to divert and use water for the generation of electric power, and such rights of diversion and use are continuous throughout the year without limitation to time or season.

"Irrigation Rights" include the right to divert and use water for irrigation, culinary, domestic, and agricultural purposes connected therewith, throughout the irrigation season of each year, which is defined as that portion of each calendar year which commences on the 20th day of April and closes on the 30th day of September; subject to the qualification, however, that between the 20th and 30th days of April of each year, and the 15th and 30th days of September of each year, inclusive of each of said days, no irrigation appropriator shall divert or use more than 40 per cent of his or its allotment under the "Schedule of Rights" hereinafter prescribed, except as is hereinafter specifically provided in the "Schedule of Rights." The water allotted and decreed to the parties hereto for irrigation purposes is, and shall be, appurtenant to the land upon which the same has been applied and used, as described in the schedule; subject, however, to the rights of appropriators or shareholders in any appropriating canal company to change the place of diversion or use as provided by law when no damage or injury results to others, or to make any beneficial use of such waters, or any part thereof, which does not injure other appropriators.

"Domestic Rights" include the right to divert and use water during the non-irrigating season, that is to say, from the first day of October of each year to the 19th day of April following, both dates inclusive, under agricultural appropriations and through irrigation ditches, for general domestic uses, including watering stock and culinary purposes. Each irrigation right herein decreed shall include and imply as a part thereof a domestic right to the use, during the non-irrigating season, of such of the waters allotted for irrigation purposes as are necessary for such domestic purposes and such shall be the measure of said domestic rights, and the extent of use of water through irrigation canals in the non-irrigation season,

DATE OF
PRIORITY

AMOUNT IN
SECOND FEET

POINT OF DIVERSION AND
PLACE OF USE

east corner of Section 1, Township 10 South, Range 40 East, B.B.M., to be used for the supplemental irrigation of lands under the Last Chance system, hereinabove described under No. 5, provided, however, that the priority and amount of this appropriation is conditioned upon a compliance with the terms of the permit upon which said appropriations are based, to-wit: Permits No. 5308 and No. 5771 respectively, 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 governing the issuance of water licenses by the Commissioner of Reclamation of the said State of Idaho.

Said water to be diverted from the natural flow of Bear River through the canal commonly known as the Tanner "B" Canal, diverting from said river at a point South 64°13' West, 2182.24 feet from the Northeast corner of Section 1, Township 10 South, Range 40 East, B.B.M., to be used for the supplemental irrigation of lands under the Last Chance Canal system, hereinabove described under No. 5, provided, however, that the priority and amount of this appropriation is conditioned upon a compliance with the terms of the permit upon which said appropriation is based, to-wit: Permit No. 6631, issued by the State Engineer of the State of Idaho, and the same is subject to the provision of the laws of the State of Idaho governing the issuance of water licenses by the Commissioner of Reclamation of the said State of Idaho.

Said water to be diverted by means of a dam situate in the Northeast quarter of Section 1, Township 10 South, Range 40 East, B.B.M., and conducted through two wood stave pipe lines to the Grace Power house of the plaintiff, situated in the Southwest quarter of Section 21, Township 10 South, Range 40 East, B.B.M., and there used for the generation of electric power or energy, and returned to the channel of Bear River.

11 0262

7. Tanner Canal Company, Limited:
1910—July 29 54 c.f.s.

Trans.
2463

11 0262

8. Utah Power & Light Company:
Grace Power Plant:
1905—Dec. 28 500 c.f.s.
1908—July 6 500 c.f.s.

11 0262

13-0958

17

MAY 14 1996

All the foregoing reservations of jurisdiction shall extend after the term at which this decree is entered, and during any subsequent term prior to January 1, 1924, at which time, or at such earlier time as the court may determine these matters, this decree shall be closed. In all other respects this decree shall be final.

The court further retains jurisdiction, however, at all times, and from time to time, to make all reasonable rules touching the manner of diverting, measuring and distributing the waters, and the devices to be installed and used for such purposes where it may be impracticable to fully comply with the terms of this decree, and to direct that the parties keep accurate and detailed records of the amounts of water diverted, and to require reports to be filed from time to time of the amount so diverted, and generally to make such orders as may be found reasonably necessary to give effect to the decree, and to appoint commissioners or water masters to make distribution in accordance with its terms, and to punish the parties hereto, their officers, agents and employes, and their grantees and successors in interest, for any violation of the provisions thereof.

Done in open court this 14th day of July, 1920.

FRANK S. DIETRICH,
Judge.

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117

Attachment 4

WOOD PIPE

CATALOG NUMBER 19

Copyright 1942

FEDERAL PIPE AND TANK COMPANY
6851 EAST MARGINAL WAY, SEATTLE, WASHINGTON, U.S.A.

FLOW OF WATER IN WOOD STAVE PIPE

Diameter 126 Inches
(10 ft. 6 in.)

Table No. 19 (Continued)

Area 86.59 Sq. Ft.							
Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet	Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet
0.10	2.08	180	0.10	0.80	6.60	571	1.0
0.15	2.61	226	0.16	0.85	6.82	591	1.1
0.20	3.06	265	0.22	0.90	7.05	610	1.2
0.25	3.46	300	0.28	0.95	7.26	629	1.3
0.30	3.83	332	0.34	1.0	7.47	647	1.4
0.35	4.17	361	0.41	1.2	8.27	716	1.6
0.40	4.49	389	0.47	1.4	9.00	780	1.9
0.45	4.80	415	0.54	1.6	9.70	840	2.2
0.50	5.08	440	0.60	1.8	10.4	900	2.5
0.55	5.36	454	0.67	2.0	11.0	953	2.8
0.60	5.63	468	0.74	2.5	12.4	1070	3.6
0.65	5.88	509	0.81	3.0	13.7	1190	4.4
0.70	6.13	531	0.88	3.5	15.0	1300	5.2
0.75	6.37	552	0.95				

FLOW OF WATER IN WOOD STAVE PIPE

Diameter 132 Inches
(11 ft. 0 in.)

Table No. 19 (Continued)

Table No. 19 (Continued)								Area 95.03	Sq. Ft.
Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet	Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet		
0.10	2.15	304	0.11	0.80	6.80	648	1.1		
0.15	2.69	356	0.17	0.85	7.04	669	1.2		
0.20	3.15	400	0.23	0.90	7.26	690	1.2		
0.25	3.57	439	0.30	0.95	7.48	711	1.3		
0.30	3.95	475	0.36	1.0	7.70	732	1.4		
0.35	4.30	509	0.43	1.2	8.52	810	1.7		
0.40	4.63	540	0.50	1.4	9.28	883	2.0		
0.45	4.94	570	0.57	1.6	9.99	950	2.3		
0.50	5.24	598	0.64	1.8	10.7	1020	2.7		
0.55	5.53	628	0.71	2.0	11.3	1070	3.0		
0.60	5.80	651	0.78	2.5	12.8	1220	3.8		
0.65	6.05	676	0.85	3.0	14.2	1350	4.7		
0.70	6.32	691	0.93	3.5	15.4	1460	5.5		
0.75	6.56	704	1.0						

FLOW OF WATER IN WOOD STAVE PIPE

Diameter 138 Inches
(11 ft. 6 in.)

Table No. 19 (Continued)

Table No. 19 (Continued)		Area 103.87		Sq. Ft.			
Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet	Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet
0.10	2.21	230	0.11	0.80	7.00	727	1.1
0.15	2.77	288	0.18	0.85	7.24	752	1.2
0.20	3.24	337	0.24	0.90	7.47	778	1.3
0.25	3.67	381	0.31	0.95	7.70	800	1.4
0.30	4.06	422	0.38	1.0	7.93	824	1.5
0.35	4.43	460	0.46	1.2	8.77	911	1.8
0.40	4.77	498	0.53	1.4	9.55	992	2.1
0.45	5.09	529	0.60	1.6	10.3	1070	2.5
0.50	5.39	559	0.68	1.8	11.0	1140	2.8
0.55	5.69	592	0.75	2.0	11.5	1200	3.1
0.60	5.97	621	0.83	2.5	13.2	1370	4.1
0.65	6.24	648	0.91	3.0	14.6	1520	5.0
0.70	6.50	675	0.99	3.5	15.9	1650	5.9
0.75	6.76	702	1.1				

FLOW OF WATER IN WOOD STAVE PIPE

Diameter 144 Inches
(12 ft. 0 in.)

Table No. 19 (Continued)

Table No. 19 (Continued)				Area 113.10		Sq. Ft.	
Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet	Head in Feet Required for Friction in 1000 Feet of Pipe	Velocity in Feet per Second	Discharge Cubic Feet per Second	Velocity and Entrance Head in Feet
0.10	2.27	257	0.12	0.75	6.95	787	1.1
0.15	2.84	322	0.19	0.80	7.20	816	1.2
0.20	3.34	379	0.26	0.85	7.44	842	1.3
0.25	3.77	427	0.33	0.90	7.68	870	1.4
0.30	4.18	473	0.41	0.95	7.92	898	1.5
0.35	4.55	515	0.48	1.0	8.16	923	1.6
0.40	4.90	555	0.56	1.2	9.01	1020	1.9
0.45	5.23	592	0.64	1.4	9.82	1110	2.2
0.50	5.55	628	0.72	1.6	10.6	1200	2.6
0.55	5.85	662	0.80	1.8	11.3	1280	3.0
0.60	6.14	695	0.88	2.0	12.0	1360	3.4
0.65	6.41	728	0.96	2.5	13.6	1540	4.3
0.70	6.68	758	1.0	3.0	15.0	1700	5.2

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IDWR/Preston

BRBA Claim Fee Summary for Power Claims

Claimant: Pacificorp

Claim #	Claim ID	\$ for Claim	Notes
1	11-248	\$178,050.00	Bear Lake Storage - Fee calculated by acreage
2	11-249	\$50.00	Bear Lake Storage
3	11-250	\$50.00	Bear Lake Storage
4	11-251	\$50.00	Bear Lake Storage
5	11-2081	\$49,050.00	14MW of capacity
6	11-4357	\$50.00	Power Generation paid under 11-2081
7	11-4359	\$50.00	Power Generation paid under 11-2081
8	13-957	\$115,550.00	33MW capacity
9	13-958	\$50.00	Power Generation paid under 13-957
10	13-NewClaim	\$50.00	Power Generation paid under 13-957
11	13-962	\$26,300.00	7.5 MW capacity
12	13-963	\$50.00	Power Generation paid under 13-962
13	13-976	\$105,050.00	33MW capacity
14	13-977	\$50.00	Power Generation paid under 13-976
15	13-978	\$50.00	Power Generation paid under 13-976
16	13-979	\$50.00	Power Generation paid under 13-976
17	New Claim 420 cfs	\$50.00	Power Generation paid under 13-976
18	New Claim 2500 cfs	\$50.00	Power Generation paid under 13-976
	Total	\$474,650.00	

Claimant:
Claim ID:

PacifiCorp	Grace
13-958	

	Rate/Unit	Unit	# Units	\$ Amount
De Minimis	\$25	Claim		
De Minimis Stock (> 4th claim)	\$0	Claim		
Non-De Minimis	\$50	Claim	1	\$50.00
Irrigation	\$1	Acre		
Power Generation	\$3.50	KW of Capacity		
Aquaculture	\$10	cfs		
Dom. & Stock (>13k gpd), Municipal, industrial, commercial, mining, heating, cooling	\$100	cfs		
Public instream flow, public lake level maintenance, wildlife				
Fire protection	\$0	cfs		
Groundwater recharge	\$0	cfs or afa		
Total				<u>\$50.00</u>

**Duplicate this worksheet once
for each claim.**

Note:
Power Generation paid under 13-
957

Revised January 30, 2023

Instructions for Form No. 42-140B-1

FILING FEES

Each claim submitted must include the filing fee. The filing fee for domestic and/or stockwater use claims diverting less than 13,000 gallons of water per day is \$25.00. However, if you are filing more than four (4) claims in which the only purpose of use listed is stockwater, only the first four (4) claims require the \$25.00 filing fee. All additional stockwater claims are fee exempt once the \$100.00 in filing fees has been paid for the first four (4) stockwater only claims filed after July 1, 2017.

The flat fee for filing all other claims filed is \$50.00 per claim. An additional variable filing fee based upon acreage, power generating nameplate capacity, cubic feet per second (cfs) amount, or an equivalent volume of storage water is required for claims for water uses other than domestic and/or stockwater uses diverting less than 13,000 gallons of water per day. Use Table 3 to calculate the variable fee. Add the calculated variable fee to the \$50.00 flat fee to determine the total fee for the claim. The exceptions are fire protection or ground water recharge which have a \$50.00 flat fee, and no variable fee.

Examples for a single claim to a water right with single source and same priority date:

Single family domestic and stockwater use, less than 13,000 gallons per day in total	\$25.00
100 acres irrigation, domestic and stockwater as above	\$150.00
Fish propagation, 4 2 cfs	\$92.00
Multiple family domestic, 1 6 cfs, irrigation of yards and gardens, 14 acres	\$224.00

TABLE 3, VARIABLE FEE SCHEDULE			
Irrigation	\$1.00 per acre	Each acre is charged only once.	
Power generation	\$3.50 per kilowatt of capacity	Manufacturer's nameplate rating, or \$250,000.00, whichever is less.	
Aquaculture	\$10.00 per cfs		
Domestic, stockwater use in excess of 13,000 gallons per day	\$100.00 per cfs		
Municipal, industrial, commercial, mining, heating, cooling	\$100.00 per cfs		
Public instream flow, public lake level maintenance, wildlife	\$100.00 per cfs		
Exceptions: No variable fee is charged for fire protection or ground water recharge.			