

**WEBER HYDROELECTRIC PROJECT
(FERC PROJECT No. 1744)**

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

INITIAL STATEMENT



MAY 2018

**BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**WEBER HYDROELECTRIC PROJECT
FERC PROJECT NO. 1744**

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

INITIAL STATEMENT
(Pursuant to 18 CFR § 4.61)

(1) PacifiCorp (hereinafter “Licensee” or PacifiCorp) applies to the Federal Energy Regulatory Commission (hereinafter “FERC” or “Commission”) for a new license for the Weber Hydroelectric Project (hereinafter “Project”), as described in the attached exhibits. The Project is currently licensed to PacifiCorp as Project No. 1744, by FERC Order dated June 28, 1990.

(2) The location of the Project is:

State or territory:	Utah
County:	Weber, Morgan, Davis
Township or nearby towns:	Ogden
Stream or other body of water:	Weber River

(3) The exact name, business address, and telephone number of the applicant are:

PacifiCorp
825 NE Multnomah, Suite 1800
Portland, OR 97232
Telephone: 503-813-6657

(4) The exact name, business address, and telephone number of each person authorized to act as agent for the applicant in this application are:

Mark Sturtevant
Managing Director
PacifiCorp – Renewable Resources
825 NE Multnomah, Suite 1800
Portland, OR 97232
Telephone: 503-813-6680
E-mail: mark.sturtevant@pacificorp.com

Todd Olson
Director of Compliance
PacifiCorp – Renewable Resources
825 NE Multnomah, Suite 1800
Portland, OR 97232
Telephone: 503-813-6657
E-mail: todd.olson@pacificorp.com

Eve Davies
Weber Relicensing Project Manager
PacifiCorp – Renewable Resources
1407 West North Temple, Suite 210
Salt Lake City, UT 84116
Telephone: 801-220-2245
Email: eve.davies@pacificorp.com

- (5) The applicant is a citizen of the United States and is not claiming preference under section 7(a) of the Federal Power Act. See 16 U.S.C. 796.
- (6) (i) The statutory or regulatory requirements of the State of Utah, in which the Project is located, which would, assuming jurisdiction and applicability, affect the Project with respect to bed and banks, and to the appropriation, diversion, and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting, and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act are:
- 401 Water Quality Certification from the Utah Department of Environmental Quality to assure compliance with section 401 of the Federal Clean Water Act.
 - State of Utah Division of Water Rights for both regulation of the water rights to operate the Project, and for a necessary stream alteration permit for the proposed fish passage.
- (ii) The steps which the Applicant has taken, or plans to take, to comply with each of the laws cited above are:
- The applicant will apply for the 401 Water Quality Certification per 18 CFR § 5.23 (b).
 - PacifiCorp will maintain its 1938 water right (35-8061) for 365 cubic feet per second (cfs) to operate the Project.
 - PacifiCorp will maintain its 1965 water right (35-8062) for 100 acre-feet for storage.
 - PacifiCorp will maintain its 1949 water right (35-8741) for storage at Echo Reservoir (U.S. Bureau of Reclamation project) and releases to be used for power generation.

(7) Brief Project description:

The Weber Hydroelectric Project is located in Weber, Davis, and Morgan (primarily the latter) counties in northern Utah. The Project is situated on the Weber River and is located approximately nine miles southeast of the city of Ogden. The existing Project consists of a concrete diversion dam, two radial gates, an intake structure, a steel pipeline encased in concrete, a historic and non-operational fish passage structure (commonly

referred to as the ‘ice chute’), a powerhouse with one generating unit, a discharge pipe, and a transmission line. An upstream fish ladder is proposed for inclusion in the licensed project works for the new license.

The FERC project boundary encompasses 14.94 acres of land managed by the USDA Forest Service (U.S. Forest Service; USFS), Uinta-Wasatch-Cache National Forest, as well as lands owned by the Union Pacific Railroad Company and the Utah Department of Transportation. There are no Tribal reservations in the Project Boundary. Facilities included within the Project Boundary include the dam, impoundment, the 9,107-foot-long penstock, powerhouse and tailrace, and a small picnic area and recreation site immediately adjacent and to the north of the dam.

The Project is a run-of-river operation and is not used for daily peaking of generation. Downstream of the Project dam, the current license mandates a continuous minimum stream flow of 34 cfs or inflow to Project, whichever is less, from October 1 - March 31 annually; and, a continuous minimum flow of 34-50 cfs (range dependent on the annual runoff forecast), or inflow to Project, whichever is less, from April 1 - September 30 annually.

Inflows less than approximately 50 cfs (minimum hydraulic capacity plus minimum flows) are passed at the dam. Flows greater than 354-370 cfs (maximum hydraulic capacity plus minimum flows) are likewise spilled.

The Project has a single Horizontal Francis turbine rated at 5,000 hp (3,850 kW) and a generator rated at 3,850 kW.

(8) Lands of the United States.

The Weber Hydroelectric Project is located on a combination of public and private lands.

U.S. Forest Service	Union Pacific Railroad
Ogden Ranger District	1400 Douglas St.
507 25th St.	Omaha, NE 68179
Ogden, UT 84401	

(9) Construction of the Project.

This is an existing project and no new generation is planned in association with this application for new license. Construction of a new fish ladder is proposed as a Protection, Mitigation and Enhancement measure for the new license.

ADDITIONAL GENERAL INFORMATION

(Pursuant to 18 CFR § 5.18)

- (1) Identify every person, citizen, association of citizens, domestic corporation, municipality, or state that has or intends to obtain and will maintain any proprietary right necessary to construct, operate, or maintain the Project:

PacifiCorp (Licensee) has obtained and will maintain any proprietary rights necessary to construct, operate, or maintain the Weber Hydroelectric Project (FERC Project No. 1744) (Project).

- (2) Identify (providing names and addresses):

- (i) Every county in which any part of the Project, and any Federal facilities that would be used by the Project is located:

The Project is located in Weber, Morgan and Davis Counties, Utah. County offices are located at:

Weber County Clerk
Weber County
2380 Washington Blvd.
#320
Ogden, UT 84401

Morgan County Clerk
Morgan County Courthouse
48 West Young St.
Morgan, UT 84050

Davis County Clerk
Davis County Admin.
Bldg.
61 South Main St.
Farmington, UT 84025

- (ii) Every city, town, or similar local political subdivision:

- (a) In which any part of the Project is or is to be located and any Federal facility that is or is to be used by the Project is located:

The Project is located in the State of Utah, on the Weber River about nine miles southeast of the City of Ogden, and is located on both public and private land. It is not located within a city, town, or similar local political subdivision.

- (b) That has a population of 5,000 or more people and is located within 15 miles of the existing or proposed Project dam:

Jeff Oyler
Planning Manager
Davis County Planning
Department
61 South Main St.
Farmington, UT 84025

Lance Evans
Department Director
Morgan County Planning
and Development
Morgan County Courthouse
48 West Young St.
Morgan, UT 84050

Rick Grover
Planning Director
Weber County Planning
Division
2380 Washington Blvd.
Ste. 240
Ogden, UT 84401

Mackenzie Wood
Centerville City
Recorder
Centerville City Hall
250 N. Main St.
Centerville, UT 84014

Clearfield City
55 S. State St.
Clearfield, UT 84015

Clinton City
2267 N. 1500 W.
Clinton, UT 84015

Farmington City
PO Box 160
Farmington, UT 84025

Farr West City
Farr West City Office
1896 N. 1800 W.
Farr West, UT 84404

Fruit Heights City
City Hall
910 S. Mountain Rd.
Fruit Heights, UT 84037

Harrisville City
363 West Independence
Blvd.
Harrisville, UT 84404

Hooper City
Hooper City Civic Center
5580 W. 4600 S.
Hooper, UT 84315

Kaysville City
23 E. Center
Kaysville, UT 84037

Layton City
437 N. Wasatch Dr.
Layton, UT 84041

North Ogden City
Municipal Bldg.
505 E. 2600 N.
North Ogden, UT 84414

Ogden City
Ogden Municipal
Building
2549 Washington Blvd.
Ogden, UT 84401

Plain City
4160 W. 2200 N.
Plain City, UT 84404

Pleasant View City
520 W. Elberta Dr.
Ogden, UT 84414

Riverdale City
4600 S. Weber River Dr.
Riverdale, UT 84405

Roy City
Roy Municipal Building
5051 S. 1900 W.
Roy, UT 84067

South Ogden City
3950 S. Adams Ave.
Suite 1
South Ogden, UT 84403

South Weber City
1600 E. South Weber Dr.
South Weber, UT 84405

Sunset City Corporation
200 W. 1300 N.
Sunset, UT 84015

Syracuse City
Municipal Building
1979 W. 1900 S.
Syracuse, UT 84075

Uintah City
2191 East 6550 South
Uintah, UT 84405

Washington Terrace City
City Hall
5249 S. South Pointe Dr.
Washington Terrace, UT
84405

West Haven City
4150 S. 3900 W.
West Haven, UT 84401

West Point City
West Point City Hall
3200 W. 300 N.
West Point, UT 84015

- (iii) Every irrigation district, drainage district, or similar special purpose political subdivision:

The following parties are signatories with PacifiCorp predecessor-companies to two water interference agreements which affect Project water rights:

Wayne Pullan U.S. Bureau of Reclamation 302 E. 1860 South Provo, UT 84606	Jeff Budge Provo River Water Users 285 W. 1100 North Pleasant Grove, UT 84062	Richard D. Smith Weber River Water Users & Davis and Weber Co. Canal Company 138 W. 1300 North Sunset, UT 84105
---	--	--

- (iv) Every other political subdivision in the general area of the Project that there is reason to believe would be likely to be interested in, or affected by, the application:

Sean Harwood U.S. Forest Service Ogden Ranger District 507 25th St. Ogden, UT 84401	Brent DeYoung Utah Department of Transportation, Region 1 166 W. Southwell St. S. Willard, UT 84340	Mark Anderson, Assistant General Manager Weber River Water Conservancy District 2837 E. Highway 193 Layton, UT 84040
---	---	---

- (v) All Indian Tribes that may be affected by the Project:

There are no tribal lands or tribal claims within or immediately adjacent to the Project Area. The following Indian Tribes are associated with the larger region where the Project is located and may be interested in the application:

Darren B. Parry, Chairman Northwestern Band of Shoshone Nation 707 North Main St. Brigham City, UT 84302	Candace Bear, Chairwoman Skull Valley Band of Goshute 407 Skull Valley Rd. Skull Valley, UT 84029
Nathan Small Tribal Chairman Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203	Luke Duncan, Chairman Ute Indian Tribe of the Uintah and Ouray Reservation PO Box 190 Fort Duchesne, UT 84026-0190
Rupert Steele, Chairman Confederated Tribe of Goshute HC 61. Box 6104 195 Tribal Center Rd. Ibapah, UT 84034	Tamra Borchardt-Slayton, Chairperson Paiute Tribes of Utah 440 North Paiute Dr. Cedar City, UT 84721

(3) The Applicant has, in accordance with 18 CFR § 5.18 (3)(i), made a good-faith effort to notify, by U.S. certified mail, the following entities of the filing of this Final License Application:

- (a) Every property owner of record of any interest within the bounds of the Project;
- (b) The entities listed in (2) above;
- (c) Other governmental agencies that would likely be interested in or affected by the application.

A complete listing of appropriate agencies, tribes, local governments, non-governmental organizations, and abutting property owners to which notice of this license application was distributed is provided in Appendix A.

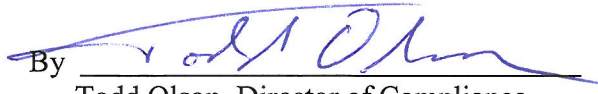
(4) In accordance with 18 CFR § 4.61 of the Commission's regulations, the following Exhibits are attached to and made a part of this application:

- Exhibit A – Project Description and Description of Operations
- Exhibit E – Environmental Report (Applicant Prepared Environmental Assessment)
- Exhibit F – General Design Drawings and Supporting Design Report (provided *under separate cover as CUI//CEII for security purposes*)
- Exhibit G – Project Boundary Maps
- Exhibit H – Description of Project Management and Need for Project Power

SUBSCRIPTION


This Final License Application for the Weber Hydroelectric Project (FERC Project No. 1744), is executed in the State of Oregon, County of Multnomah, by Signee of PacifiCorp, Todd Olson, Director of Compliance, Renewable Resources, 825 NE Multnomah, Suite 1800, Portland, OR 97232, who, being duly sworn, deposes and says that the contents of this application are true to the best of his knowledge or belief and that he is authorized to execute this application on behalf of PacifiCorp. The undersigned has signed this application this 29th day of May 2018.

PacifiCorp

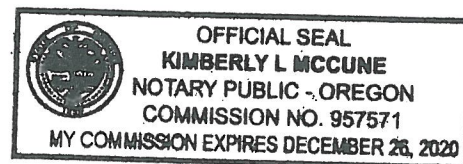
By 
Todd Olson, Director of Compliance
PacifiCorp - Renewable Resources

VERIFICATION

Subscribed and sworn to before me, a Notary Public of the State of Oregon this 29th day of May 2018.


Kimberly McCune, Notary Public

My Commission Expires: 12-26-20



CERTIFICATE OF SERVICE

I hereby certify that I have this day served notice of availability and/or a copy of the *Final License Application for the Weber Hydroelectric Project (FERC No. Project No. 1744)*, via U.S. Certified Mail upon each person designated on the attached Distribution List.

Dated this 29th day of May 2018, at Portland, Oregon.



Beth Bendickson, Sr. Project Coordinator
PacifiCorp – Renewable Resources
825 NE Multnomah, Suite 1800
Portland, OR 97232

APPENDIX A

DISTRIBUTION LIST

**Weber Distribution List
May 2018**

Federal Agencies		
Sean Harwood District Ranger U.S. Forest Service Ogden Ranger District 507 E. 25th St., Suite 103 Ogden, UT 84401	Jamie Gough Water Rights and Uses Program Manager/ Interregional Hydropower Team Leader U.S. Forest Service Intermountain Region 4 324 25th St. Ogden, UT 84401	Charlie Rosier Recreation, Lands/Special Uses U.S. Forest Service, Uinta-Wasatch-Cache National Forest Forest Supervisor's Office 857 W. South Jordan Pkwy South Jordan, UT 84095
Director U.S. Dept. of Energy Denver Reg. Support Office 1617 Cole Blvd., Flr 2 Golden, CO 80401	Regional Director Bureau of Reclamation 125 S State St., Room 6107 Salt Lake City, UT 84138	Courtney Hoover Regional Environmental Officer U.S. Dept. of the Interior PO Box 25007 Denver, CO 80225
David Hurd Env. Protection Specialist National Park Service Intermountain Reg. Office 12795 W. Alameda Pkwy. Denver, CO 80225-0287	Wayne Pullan Area Manager U.S. Bureau of Reclamation 302 E. 1860 South Provo, UT 84606	Rick Jones Wildlife Biologist U.S. Bureau of Reclamation 302 E. 1860 South Provo, UT 84606
Director of Lands USDA-Forest Service Intermountain Region 324 25th St. Ogden, UT 84401	Regional Director Attn: LC 705 Bureau of Reclamation Lower Colorado Region PO Box 61470 Boulder City, NV 89006	David Redhorse Natural Resource Officer U.S. Bureau of Indian Affairs 911 NE 11 th Ave. Portland, OR 97232
Larry Crist Utah Field Supervisor U.S. Fish & Wildlife Service 2369 W. Orton Circle Suite 50 West Valley City, UT 84119	Doug Benevento Regional Administrator U.S. Env. Protection Agency Region 8 1595 Wynkoop St. Mailcode 8RA Denver, CO 80202-1129	Evan Williams Federal Energy Regulatory Commission Division of Hydropower Licensing 888 First St., NE Washington, DC 20426
Sue Masica Regional Director National Park Service 12795 Alameda Pkwy. Denver, CO 80225	Paul Chase Fisheries Biologist U.S. Forest Service Logan Ranger District Wasatch-Cache Nat'l Forest 1500 E. Hwy 89 Logan, UT 84321	

**Weber Distribution List
May 2018**

State Agencies		
Brent DeYoung Utah Department of Transportation, Region 1 166 W. Southwell St. S. Willard, UT 84340	Paul Thompson Utah Division of Wildlife Resources 515 E. 5300 S. Ogden, UT 84405	State Engineer Division of Water Rights Utah Dept. of Natural Resources PO Box 146300 Salt Lake City, UT 84114
Bill James Wildlife Program Director Utah Dept. of Natural Resources PO Box 146301 Salt Lake City, UT 84114	Michal D. Fowlks, Director Div. of Wildlife Resources Utah Dept. of Natural Resources PO Box 146301 Salt Lake City, UT 84114	Kari Lundeen Utah Dept. of Water Quality 195 N. 1950 W. Salt Lake City, UT 84114
Director, State Parks Utah Dept. of Natural Resources 1594 W. North Temple Suite 116 Salt Lake City, UT 84116	Director Division of Oil, Gas and Mining Utah Dept. of Natural Resources PO Box 145801 Salt Lake City, UT 84114	Director Utah Geological Survey 1594 W. North Temple Suite 3410 Salt Lake City, UT 84116
Eric Millis, Director Utah Division of Water Resources 1594 W. North Temple Salt Lake City, UT 84116	Attorney General Utah Office of Attorney General 236 State Capital Building Salt Lake City, UT 84114	DPU/PSC Library Utah State Division of Public Utilities PO Box 146751 Salt Lake City, UT 84114
Patricia E. Schmid Assistant Attorney General Division of Public Utilities PO Box 146757 Salt Lake City, UT 84114	Joni Zenger Division of Public Utilities PO Box 146757 Salt Lake City, UT 84114	Brad Westwood, Director Utah Division of State History 300 S. Rio Grande St. Salt Lake City, UT 84101
Chris Hansen Utah Division of State History 300 S. Rio Grande St. Salt Lake City, UT 84101	William Damery Utah Division of Water Quality PO Box 144870 Salt Lake City, UT 84114	Shirlee Silversmith Utah Division of Indian Affairs 250 North 1950 West, Suite A Salt Lake City, UT 84116
Chrissy Wilson Utah Division of Wildlife Resources PO Box 146301 1594 W. North Temple Suite 2110 Salt Lake City, UT 84114	Sarah Seegert Utah Division of Wildlife Resources PO Box 146301 1594 W. North Temple Suite 2100 Salt Lake City, UT 84114	

**Weber Distribution List
May 2018**

Nongovernmental Organizations		
Charlie Vincent American Whitewater 1800 E 3990 South Salt Lake City, UT 84124	Kevin Colburn National Stewardship Director American Whitewater PO Box 1540 Cullowhee, NC 28723	Paul Burnett Trout Unlimited 5279 South 150 East Ogden, UT 84405
Tribes		
Darren B. Parry Tribal Chairman Northwestern Band of Shoshone Nation 707 North Main St. Brigham City, UT 84302	Candace Bear Chairwoman Skull Valley Band of Goshute 407 Skull Valley Rd. Skull Valley, UT 84029	Nathan Small Tribal Chairman Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203
Luke Duncan Chairman Ute Indian Tribe of the Uintah and Ouray Reservation PO Box 190 Fort Duchesne, UT 84026	Rupert Steele Chairman Confederated Tribe of Goshute HC 61 Box 6104 195 Tribal Center Rd. Ibapah, UT 84034	Tamra Borchardt-Slayton Chairperson Paiute Tribes of Utah 440 North Paiute Dr. Cedar City, UT 84721
Cleve Davis Environmental Coordinator Fish and Wildlife Department Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203	Dan Stone Policy Analyst Shoshone-Bannock Tribe PO Box 306 Fort Hall, ID 83203	
Local/Governments		
Jeff Oyler Planning Manager Davis County Planning Department PO Box 618 Farmington, UT 84025	Lance Evans Department Director Morgan County Planning and Development Morgan County Courthouse 48 West Young St. Morgan, UT 84050	Rick Grover Planning Director Weber County Planning Division 2380 Washington Blvd. Suite 240 Ogden, UT 84401
Davis County Board of County Commissioners PO Box 618 Farmington, UT 84025	Morgan County Board of County Commissioners 48 West Young St. Morgan, UT 84050	Weber County Board of County Commissioners 2380 Washington Blvd. #320 Ogden, UT 84401
Mackenzie Wood City Recorder 250 North Main St. Centerville, UT 84014	Harrisville City 363 West Independence Blvd. Harrisville, UT 84404	Clearfield City 55 S. State St. Clearfield, UT 84015

**Weber Distribution List
May 2018**

Clinton City 2267 N. 1500 W. Clinton, UT 84015	Farr West City Farr West City Office 1896 N. 1800 W. Farr West, UT 84404	Fruit Heights City City Hall 910 S. Mountain Rd. Fruit Heights, UT 84037
Hooper City Hooper City Civic Center 5580 W. 4600 S. Hooper, UT 84315	Kaysville City 23 E. Center Kaysville, UT 84037	Layton City 437 N. Wasatch Dr. Layton, UT 84041
North Ogden City Municipal Bldg. 505 E. 2600 N. North Ogden, UT 84414	Plain City 4160 W. 2200 N. Plain City, UT 84404	Pleasant View City 520 W. Elberta Dr. Ogden, UT 84414
Riverdale City 4600 S. Weber River Dr. Riverdale, UT 84405	Roy City Roy Municipal Building 5051 S. 1900 W. Roy, UT 84067	South Ogden City 3950 S. Adams Ave., Suite 1 South Ogden, UT 84403
South Weber City 1600 E. South Weber Dr. South Weber, UT 84405	Sunset City Corporation 200 W. 1300 N. Sunset, UT 84015	Syracuse City Municipal Building 1979 W. 1900 S. Syracuse, UT 84075
Washington Terrace City City Hall 5249 S. South Pointe Dr. Washington Terrace, UT 84405	West Haven City 4150 S. 3900 W. West Haven, UT 84401	West Point City West Point City Hall 3200 W. 300 N. West Point, UT 84015
Farmington City PO Box 160 Farmington, UT 84025	Ogden City Ogden Municipal Building 2549 Washington Blvd. Ogden, UT 84401	Cole Panter Weber & Ogden Water Commissioner PO Box 741 Ogden, UT 84402
Mark Anderson Assistant General Manager. Weber Basin Water Conservancy District 2837 E. Hwy. 193 Layton, UT 84040	Jeff Budge Provo River Water Users 285 W. 1100 North Pleasant Grove, UT 84062	Richard D. Smith Weber River Water Users & Davis and Weber Co. Canal Company 138 W. 1300 North Sunset, UT 84105
Uintah City 2191 East 6550 South Uintah, UT 84405		

**Weber Distribution List
May 2018**

Other		
Justin Mahr Contract Manager Union Pacific Rail Rd. 1400 Douglas St. Omaha, NE 6817	Norma J. Reynolds Real Estate Union Pacific Railroad 1400 Douglas St, STOP 1690 Omaha, NE 68179	Mark Sturtevant Managing Director PacifiCorp Renewable Resources 825 NE Multnomah, Suite 1800 Portland, OR 97232
Eve Davies Weber Relicensing Project Manager PacifiCorp Renewable Resources 1407 West North Temple Suite 210 Salt Lake City, UT 84116	Todd Olson Director, Compliance PacifiCorp Renewable Resources 825 NE Multnomah, Suite 1800 Portland, OR 97232	

**WEBER HYDROELECTRIC PROJECT
(FERC PROJECT NO. 1744)**

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

EXHIBIT A

PROJECT DESCRIPTION

AND

APPENDIX A: DETAILED PROJECT LOCATION MAPS



MAY 2018

TABLE OF CONTENTS

1.0	PROJECT LOCATION	1
2.0	DESCRIPTION OF PROJECT § 4.61 (C)(1).....	4
2.1	PROJECT FEATURES	4
2.1.1	Turbine Type § 4.61 (c)(1)(i-ii).....	4
2.1.2	Description of Project Operation § 4.61 (c)(1)(iii).....	4
2.1.2.1	Low Flow Operations	5
2.1.2.2	Proposed Project Operations.....	5
2.1.2.3	Annual Generation § 4.61 (c)(1)(iv)	6
2.1.3	Average Head § 4.61 (c)(1)(v)	7
2.1.4	Reservoir Surface Area and Storage Capacity § 4.61 (c)(1)(vi).....	7
2.1.5	Hydraulic Capacity § 4.61 (c)(1)(vii)	7
2.1.6	Size, Capacity & Construction Materials of Structures § 4.61 (c)(1)(viii).....	11
2.1.7	Project Photos	12
2.1.7.1	Diversion Dam.....	12
2.1.7.2	Powerhouse.....	13
2.1.7.3	Bypass Reach and Tailrace	15
2.1.7.4	Appurtenant Facilities and Equipment	15
2.2	PROJECT COSTS § 4.61 (C)(1)(IX).....	15
2.3	CAPITAL COSTS AND ESTIMATED O&M COSTS OF PROPOSED ENVIRONMENTAL MEASURES § 4.61 (C)(1)(X)	16
2.3.1	Protection, Mitigation, and Enhancement Measures (PM&E).....	16
3.0	PROJECT PURPOSE § 4.61 (C)(2)	26
4.0	APPLICATION DEVELOPMENT COSTS § 4.61 (C)(3).....	27
5.0	ON-PEAK AND OFF-PEAK VALUES OF PROJECT § 4.61 (C)(4)	28
6.0	ESTIMATED CHANGE IN PROJECT GENERATION § 4.61 (C)(5)	29
7.0	UNDEPRECIATED NET INVESTMENT (BOOK VALUE) OF THE PROJECT § 4.61 (C)(6).....	30
8.0	ESTIMATED ANNUAL COST OF THE PROJECT § 4.61 (C)(7).....	31
9.0	SINGLE LINE ELECTRICAL DIAGRAM § 4.61 (C)(8)	33
10.0	MEASURES TO ENSURE SAFE MANAGEMENT § 4.61 (C)(9)	34
10.1	OWNER’S DAM SAFETY PROGRAM	34

10.1.1	Emergency Action Plan	34
10.1.2	Public Safety Plan.....	34
10.1.3	Site Security.....	35
10.1.4	Continuous Improvement	35
10.2	ENVIRONMENTAL INSPECTION REPORT.....	35

LIST OF TABLES

Table 1.	1966 – 2016 Average Monthly Generation Rate and Turbine Discharge	6
Table 2.	Historical Monthly Generation Totals at the Weber Hydroelectric Project 2007-2016	7
Table 3.	Size, Capacity & Construction Materials of Structures.....	11
Table 4.	Estimated Capital and Operation and Maintenance Costs for Potential Project Upgrades	15
Table 5.	Existing PM&E Measures	16
Table 6.	Proposed PM&E Measures	18
Table 7.	Current and Proposed PM&E Measure Costs. Values are in 2017 dollars.....	20
Table 8.	Project's Capitalized Expenses for Period of 44 Years.....	31
Table 9.	Project's Capitalized Expenses for Period of 44 Years With Inflation	31
Table 10.	Environmental Inspection Action Items 2017	35

LIST OF FIGURES

Figure 1. Project Location Map	3
Figure 2. Daily Flow Duration Curve - Weber River at Gateway (Inflow Gage). Data from 1966 - 2016.	8
Figure 3. Monthly Flow Duration Curves - Weber River at Gateway (inflow gage).....	9
Figure 4. Alternative Monthly Flow Duration with Identical Axis for all Months	10
Figure 5. Weber Project Current Public Safety Plan Part 12 Signage (Powerhouse).....	37
Figure 6. Weber Project Current Public Safety Plan Part 12 Signage (Dam and Recreation Site)	38
Figure 7. Legend for Current Public Safety Plan.....	39

LIST OF PHOTOS

Photo 1. Diversion Dam.....	12
Photo 2. Diversion Dam and Intake Street Level View	12
Photo 3. Pipeline	13
Photo 4. Aerial View of Powerhouse and Substation	14
Photo 5. Street Level View of Weber Substation and Powerhouse.....	14
Photo 6. Bypass Reach to Powerhouse	15

LIST OF APPENDICES

Appendix A – Detailed Project Location Maps

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5 MW**

**WEBER HYDROELECTRIC PROJECT
(FERC No. 1744)**

PACIFICORP

**EXHIBIT A
PROJECT DESCRIPTION § 4.61 (C)**

1.0 PROJECT LOCATION

PacifiCorp, a subsidiary of Berkshire Hathaway Energy, is the Licensee for the Weber Hydroelectric Project (FERC No. 1744) (Project). The Project is located in the northern portion of the State of Utah in a small area of Weber, Morgan, and Davis counties, approximately nine miles from the City of Ogden on the Weber River. The Project is partially located on lands managed by the Uinta-Wasatch-Cache National Forest, and partially on lands owned by the Union Pacific Railroad Company. There are no Tribal reservations in the Federal Energy Regulatory Commission (FERC) Project Boundary. The U.S. Department of Agriculture Forest Service (USFS) manages approximately 15 acres within the proposed Project Boundary.

The exact names, addresses, telephone numbers, and email addresses of the Licensee's representatives are:

Mark Sturtevant, Managing Director
PacifiCorp – Renewable Resources
825 NE Multnomah, Suite 1800
Portland, OR 97232
Phone Number: 503-813-6680
mark.sturtevant@pacificorp.com

Todd Olson, Director of Compliance
PacifiCorp – Renewable Resources
825 NE Multnomah, Suite 1800
Portland, OR 97232
Phone Number: 503-813-6657
todd.olson@pacificorp.com

Eve Davies, Relicensing Project Manager
PacifiCorp – Renewable Resources
1407 W. North Temple, NTO 210
Salt Lake City, UT 84116
Phone Number: 801-220-2245
eve.davies@pacificorp.com

For the purposes of this document, the Project Boundary is defined as all lands and waters within the FERC Project Boundary (whether existing or proposed) for the Weber Hydroelectric Project No. 1744, as denoted by the Project's Exhibit G. The Project Area is the area which contains all Project features (encompassing the FERC Project Boundary as defined above), and which extends out for the purposes of characterization and analysis from the furthest edge of the Project Boundary, and across the river to the far riverbank (including the river regardless of which side of the river the Project features are found), as shown in Figure 1. Where

appropriate, the Area of Potential Effect (APE) is defined by resource as the lands and waters within a given vicinity, often an additional one-mile buffer, around the Project Area.

The location of the Project is shown in Figure 1. Detailed maps showing lands and waters both within the Project Boundary and the Project Area, land ownership, and Project facilities are provided in Appendix A.

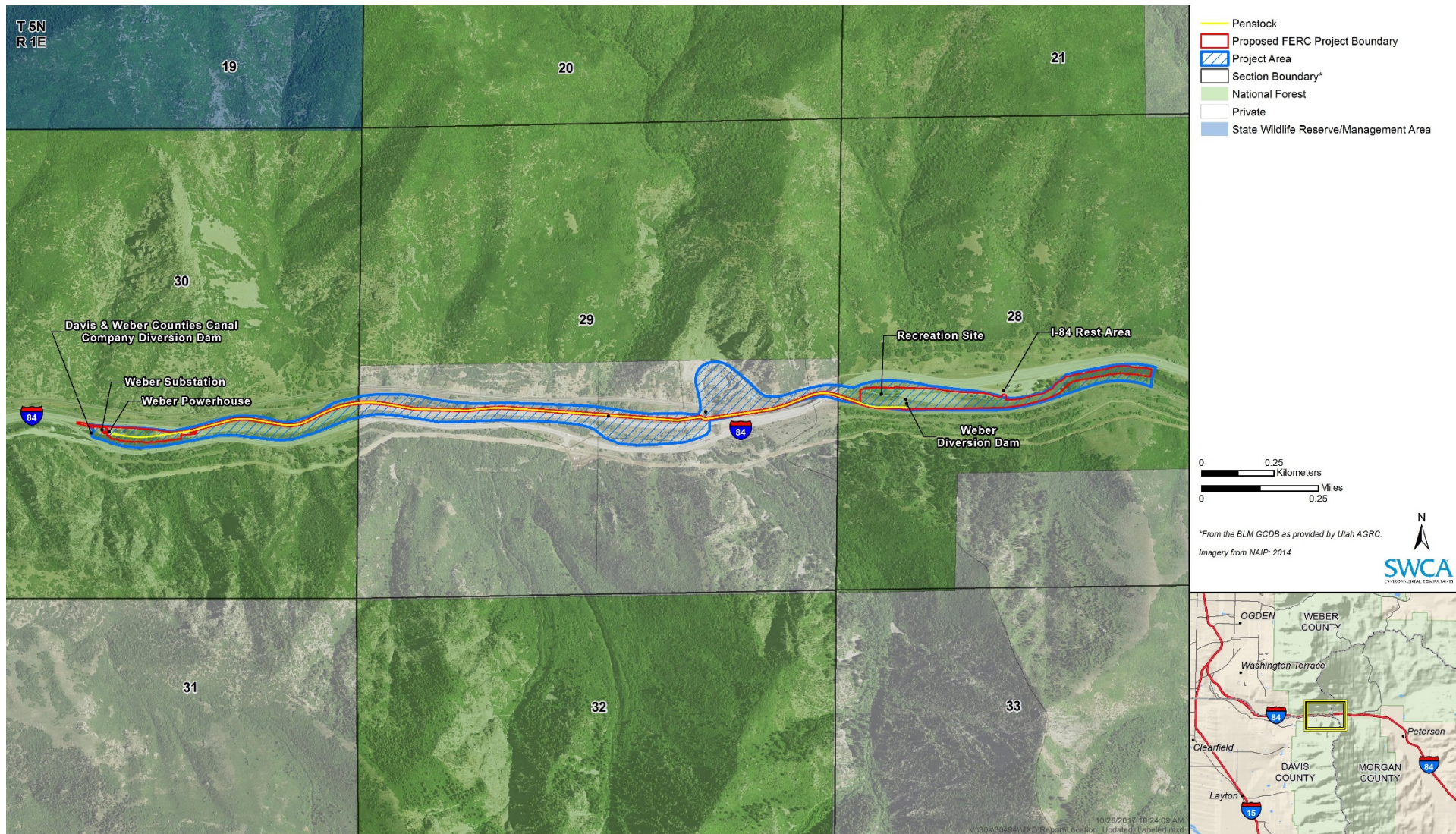


Figure 1. Project Location Map

2.0 DESCRIPTION OF PROJECT § 4.61 (C)(1)

The Project was initially constructed in 1910 by Utah Light and Railway Company, which was acquired by a predecessor company and became part of Rocky Mountain Power and PacifiCorp (then Utah Power and Light) in 1915. The Project has a generating capacity of 3.85 megawatts (MW). The original license was made effective January 1, 1938 and expired June 30, 1970. Subsequently a FERC operating license was issued annually for a period from June 30, 1970 to June 28, 1990, due to a dispute with a nearby municipality that wanted to acquire the Weber Project. After a follow-up relicensing process with FERC, the current license was issued on June 28, 1990. It expires on May 31, 2020.

2.1 PROJECT FEATURES

The existing Project consists of a concrete diversion dam, two radial gates, a low-level outlet gate, an intake structure, a steel pipeline (encased in concrete for the first approximately 125 feet of its length), a powerhouse with one generating unit, a discharge pipe, a transmission line, and a fish passage structure (historic and non-operational), hereafter referred to as the ‘ice chute.’

2.1.1 Turbine Type § 4.61 (c)(1)(i-ii)

The Project is operated through a single Horizontal Francis turbine with 5,000 horsepower.

2.1.2 Description of Project Operation § 4.61 (c)(1)(iii)

The Project is a run-of-river operation and is not used for daily peaking of generation. The current operating license was issued by FERC in 1990 with a 30-year license term, expiring May 31, 2020. The license does not specify any daily/seasonal ramping rates, flushing flows, reservoir operations, or flood control operations. Prior to 1993, the Project was manually operated locally. Following the installation of an automated control system in 1993, the Weber Project is now designed to be capable of unmanned semi-automatic operation and is controlled by a programmable logic controller. Two local operators are located nearby in Ogden, Utah, and visit the Project daily and as dispatched by PacifiCorp’s Hydro Control Center located in Ariel, Washington. However, the plant may at times be unattended. The Hydro Control Center monitors the Project operations remotely and notifies the local operators when an issue arises. In addition to standard local generator protection equipment and alarms, the penstock pressure, generator load, forebay level, and circuit breaker status at the Weber Project are monitored by a hydro control operator at the Hydro Control Center. The Weber flowline can divert up to approximately 365 cubic feet per second (cfs) at the Project dam; the bypass reach is approximately 1.7 miles long.

Downstream of the Weber diversion dam, the current license mandates a continuous minimum stream flow of 34 cfs or inflow, whichever is less, from October 1 - March 31 annually; and, a continuous minimum flow of 34-50 cfs (range dependent on the annual runoff forecast), or inflow, whichever is less, from April 1 - September 30 annually.

Annual maintenance is routinely conducted each year and involves vegetation management (including landscaping areas) on Project lands, recreation area maintenance and

management (including seasonal portable restroom facilities), limited road maintenance activities, as-needed maintenance on the water conveyance system and generating unit, and non-routine forebay dredging. The timing and scope of annual maintenance activities are coordinated with the Wasatch-Cache National Forest during required annual consultation and as the need arises, as provided in the 1990 Weber license articles and in the Special-Use Permit issued for the Project by the USFS.

2.1.2.1 LOW FLOW OPERATIONS

The Weber Project functions in run-of-river mode under all operational conditions, but particularly during low flow operations when the forebay is emptied and the river channel carries water directly to and through the low-level outlet in the Weber dam (and spillway gates, as required). If the forebay falls four inches below the top of the spillway gate, turbine flows are reduced via automated pond level control. Flows are continually reduced until the unit shuts down, at which point all flow is passed through the minimum flow gate/ice chute (and spillway gates, as required). During winter months, the pond level controls are set to maintain a low water set point up to 12 inches below the normal pond level. For operation of the proposed future fish ladder, at times when the forebay elevation is lower than the inverted opening of the proposed fish ladder intake (or conditions exist that prevent the required 20 cfs flow into the proposed fish ladder), PacifiCorp has committed to keep the low-level gate operational, subject to operational constraints and requirements such as extreme winter icing conditions (PacifiCorp will undertake periodic maintenance as required to ensure operation). If the low-level gate is inoperable for 10 days or more due to extreme temperature or flow conditions, PacifiCorp will consult the specified members of the Fisheries Working Group (FWG) as required by the October 11, 2017 Memorandum of Agreement (MOA) regarding Proposed Protection, Mitigation and Enhancement (PM&E) measures and open the low-level gate as soon as possible (also see Appendix A of Exhibit E of this Final License Application).

2.1.2.2 PROPOSED PROJECT OPERATIONS

The Project will continue to operate as a run-of-the-river facility with new PM&E measures for potential recreation (boating) flows and a new proposed fish ladder slightly modifying the manner, but not the timing, of flow releases into the bypass reach. PacifiCorp proposes to continue the existing minimum flow regime (34-50 cfs, depending on season and annual runoff forecast), although the minimum flow will be released through both the proposed fish ladder (20 cfs) as well as the existing ice chute structure that would underlie the new fish ladder and release the remainder of the minimum flow (14-30 cfs).

The proposed fishway at the Project is a vertical slot fish ladder, with a design flow of 20 cfs. Any remaining minimum flows will be passed via the existing minimum flow gate/ice chute. The 20 cfs through the fishway would remain constant with the existing minimum flow gate being used to provide the flow adjustment required to accommodate the varying minimum flow requirement (34-50 cfs). To ensure that supplemental attraction flows through the ice chute provide the necessary attraction flow for fish passage, when needed, the south radial gate would be opened rather than the north radial gate (currently the north radial gate is opened; this change would require a new motor and controls on the south radial gate). In addition, in the event of a prolonged Project outage, PacifiCorp would keep the forebay full, if possible, to ensure continued fish ladder operation and consult with the specified members of the FWG as noted in the October 11, 2017 MOA regarding the Proposed PM&E measures.

The proposed recreation-related PM&E measure deals with supporting whitewater boating use of the bypass reach. If a safe and legal egress site is identified by the boating community, and agreed to by the USFS and PacifiCorp, PacifiCorp would provide boater flows to the bypass reach by curtailing generation (up to 320 cfs or inflow) for 4-hour segments on four Saturdays prior to July 15 annually. If undertaken, the exact schedule of this provision of boater flows would be determined in conjunction with American Whitewater and coordinated with the USFS and Davis and Weber Counties Canal Company (DWCCC). Boater flows in the future may be subject to minimum boater use.

In all other respects, the Project operations described in this section would remain the same under the proposed action.

2.1.2.3 ANNUAL GENERATION § 4.61 (C)(1)(IV)

The Project has an existing installed generating capacity of 3.85 MW. The average annual generation is 16,926 megawatt-hours (MWh). The average monthly generation is 1,411 MWh. PacifiCorp began collecting electronic records of Project generation and water outflow in 1966. Therefore, approximately 50 years of data (1966-2016) were used to calculate the values in Table 1, below. The table provides the average monthly generation rate (MWh) and turbine discharge (cfs) based on hourly data. The daily average generation and turbine discharge is highest in June (65.4 MWh/day, 1,961 MWh/30 days, 303 cfs) and lowest in November (20.4 MWh/day, 613 MWh/30 days, 95 cfs). Winter flows and associated generation are affected by the seasonal diversion of water away from the lower Weber River resulting from the 1938 and 1965 Bureau of Reclamation contracts that can provide storage water to Deer Creek (and subsequently Jordanelle) and Echo Reservoirs during winter months. These contracts result in an average annual power generation increase of 5,246 additional MWh from the generation at the Bureau of Reclamation's Deer Creek Hydroelectric Facility during the time that water is diverted away from the Weber Hydroelectric Project, for a total average annual generation of 22,307 MWh credited to the Weber Project. Table 2 shows generation data for the Weber Project during the most recent 10-year period.

Table 1. 1966 – 2016 Average Monthly Generation Rate and Turbine Discharge¹

Month	Generation (MWh)	Discharge (cfs)
January	838	125
February	883	145
March	1,430	214
April	1,742	269
May	1,981	296
June	1,961	303
July	1,982	296
August	1,954	292
September	1,754	271
October	1,095	164
November	613	95
December	692	103

¹These averages include the approximate three-year period (1983 – 1985) that the Weber plant was offline due to a fire; the average annual generation with those years excluded is 750 MWh higher than shown above.

Table 2. Historical Monthly Generation Totals at the Weber Hydroelectric Project 2007-2016 (MWh)

Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
January	559	157	212	35	903	1,042	(15) ¹	(14)	(14)	-	287
February	628	301	307	85	1,846	391	(11)	(12)	(12)	71	359
March	1,743	1,210	1,489	508	2,200	1,657	285	(11)	(11)	1,221	1,029
April	2,069	1,875	2,051	1,661	2,193	2,024	744	(10)	334	1,956	1,490
May	2,069	2,240	1,322	2,210	2,277	2,057	1,864	(9)	1,814	2,254	1,810
June	2,196	2,254	2,157	2,263	2,230	2,123	1,748	(6)	1,635	2,090	1,869
July	2,122	2,318	2,307	2,276	2,283	2,152	1,688	1,237	2,021	2,115	2,052
August	2,133	2,252	2,329	2,254	2,253	1,702	1,431	2,011	1,930	1,934	2,023
September	1,800	2,212	2,129	2,037	2,188	1,351	1,152	1,768	1,822	1,440	1,790
October	999	1,294	700	1,069	2,176	601	46	100	422	501	791
November	97	179	111	160	1,246	13	(11)	(11)	(7)	44	182
December	68	178	40	758	2,071	(13)	(13)	(12)	(8)	-	307
Total Annual	16,483	16,470	15,154	15,316	23,866	15,100	8,908	5,031	9,926	13,626	13,989

¹ Negative values shown in parentheses

2.1.3 Average Head § 4.61 (c)(1)(v)

The estimated average head on the plant is 185 feet. There is no storage reservoir as the Project is operated as a run-of-river Project. The forebay area within the Project Boundary is 8.86 acres with a water surface area of 8.4 acres. The storage volume of the reservoir is 42 acre-feet.

2.1.4 Reservoir Surface Area and Storage Capacity § 4.61 (c)(1)(vi)

The normal maximum water surface area and normal maximum water surface elevation (North American Vertical Datum of 1988 [NAVD88]), and gross storage capacity of the Project impoundment (forebay) are:

Area	8.4 acres, maximum
Elevation	4,797.88 feet (top of spillway gates)
Storage	Approximately 42 acre-feet

2.1.5 Hydraulic Capacity § 4.61 (c)(1)(vii)

Minimum Hydraulic Capacity: The turbine can be operated to 9.0 kilowatts (kW)/1 cfs with either standard (automated mode) or manual operation.

Maximum Hydraulic Capacity: The Weber flowline can divert up to approximately 320 cfs (up to 365 cfs instantaneously) at the Project dam.¹

Estimated Dependable Capacity: 1,160 kW using the most recent 30-year period of record. For the purpose of this document, dependable capacity is based on the annual energy production during the driest year, 2002, of the 30-year period of record. The dependable capacity was based on the 2002 annual energy production divided by the number of hours per year.

¹ 1938 and 1965 agreements and existing water rights: 35-8061—365 cfs flow right, 35-8062—100 af storage, 35-8741— af storage in Echo.

Drainage Area: The Weber River Basin drains an area of 2,476 square miles in Summit, Morgan, Weber, and Davis Counties, Utah, and part of Uinta County, Wyoming. The primary drainage of the basin, the Weber River, begins its journey near Reids Peak (11,708 feet) in the Uinta Mountains, flows west to Oakley, Utah, and then flows in a northwesterly direction to its terminus at Great Salt Lake. The Weber River is approximately 125 miles long, and within its drainage there are approximately 968 miles of perennial streams and 1,254 miles of intermittent streams (Utah Water Atlas 2015). Flows in the Weber River Basin are regulated by seven major reservoirs. Echo and Rockport Reservoirs are located on the mainstem of the Weber River, whereas Pineview, Causey, East Canyon, Lost Creek, and Smith & Morehouse Reservoirs are located on tributaries.

Flow duration curves can be found below in Figures 2, 3, and 4.

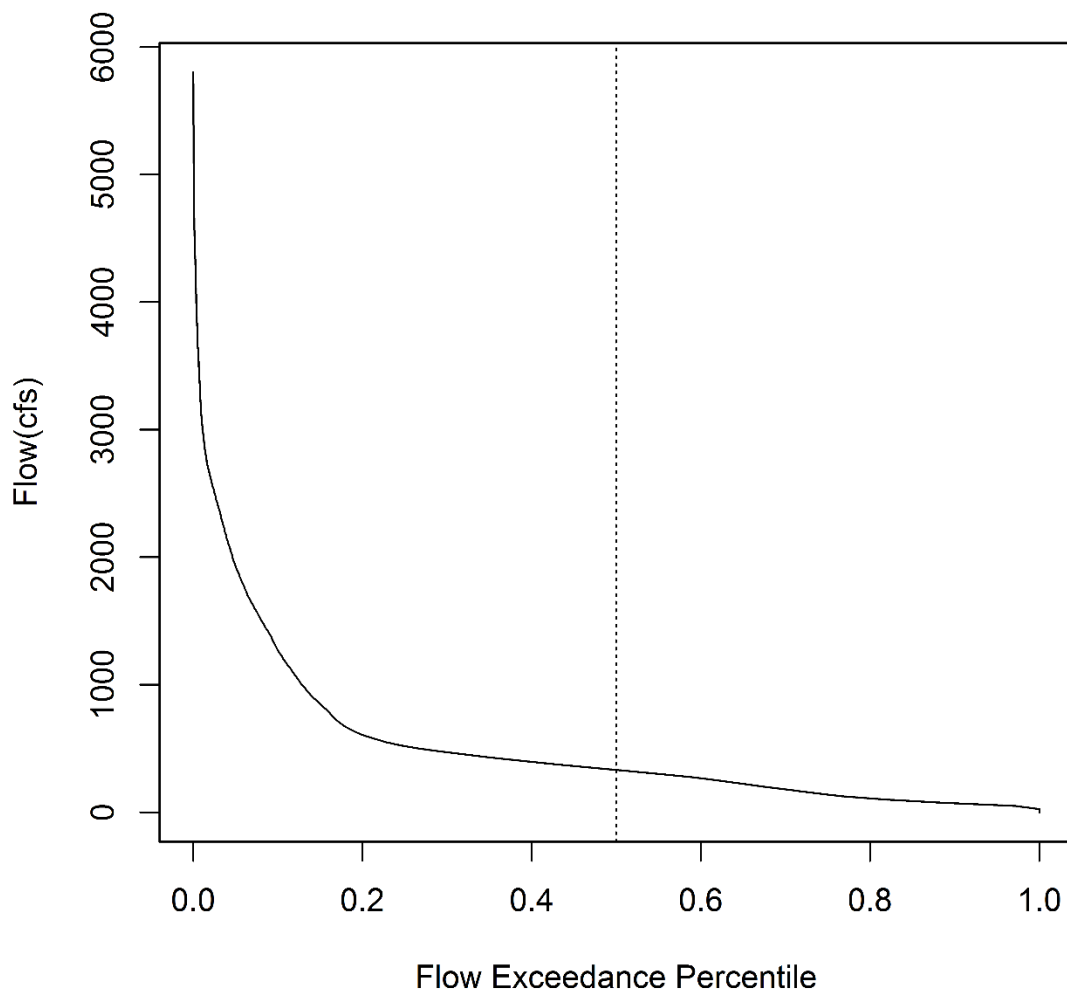


Figure 2. Daily Flow Duration Curve - Weber River at Gateway (Inflow Gage). Data from 1966 - 2016.

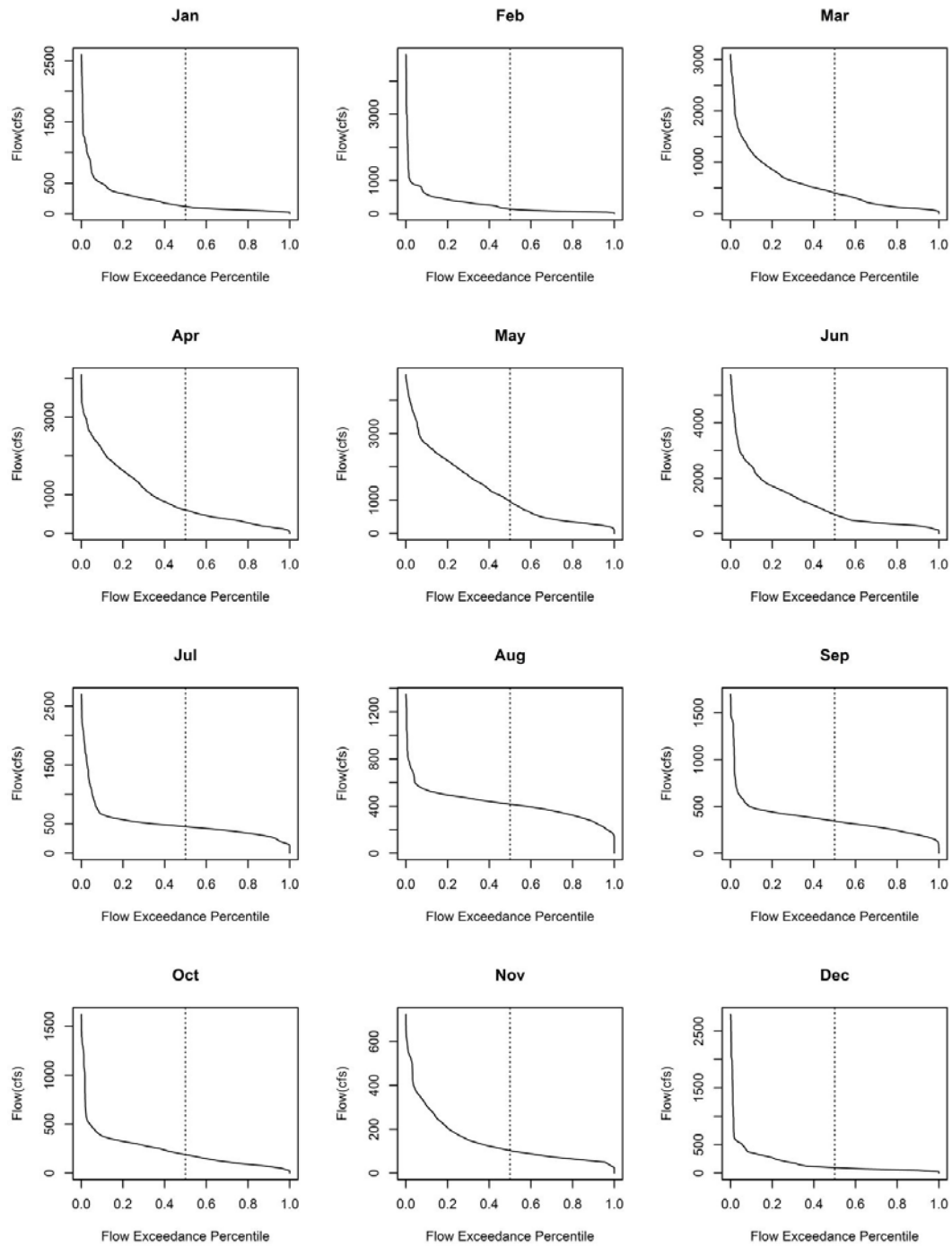


Figure 3. Monthly Flow Duration Curves - Weber River at Gateway (inflow gage). Note that the maximum flow on each axis is the maximum observed daily average flow for that month. Data from January 1, 1966 through December 31, 2016.

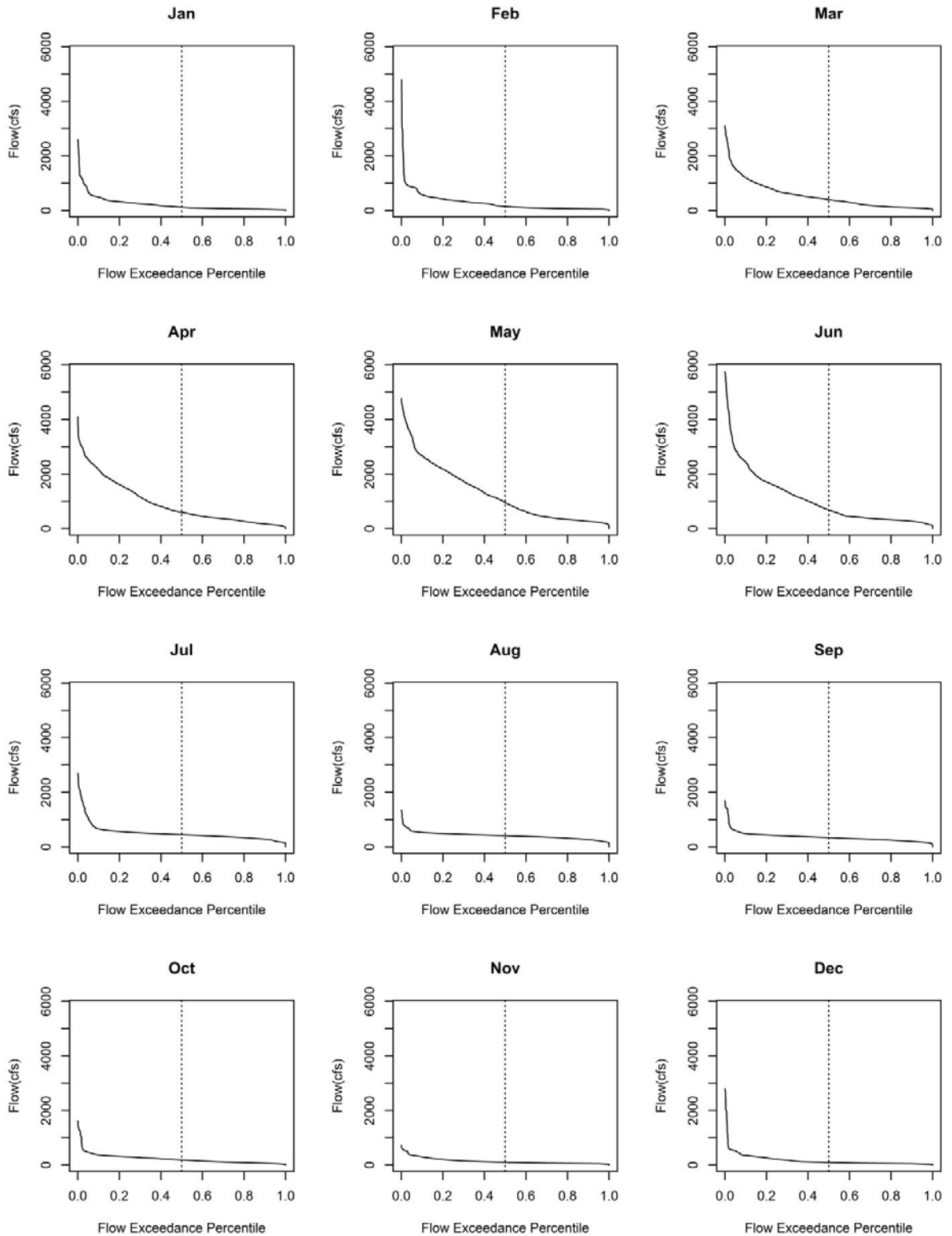


Figure 4. Alternative Monthly Flow Duration with Identical Axis for all Months

2.1.6 Size, Capacity & Construction Materials of Structures § 4.61 (c)(1)(viii)

Table 3 details size and construction material information of Weber Project structures.

Table 3. Size, Capacity & Construction Materials of Structures

Equipment/Structure	Dimensions	Capacity	Construction Materials
Diversion Dam	27 ft. high by 79 ft. wide by 114 feet long; top of spillway gate elevation of 4,797.88 ft. (NAVD88)	42 acre-feet	Concrete
Radial Gates (2)	29 ft. wide	N/A	Steel-original
Intake Structure	20 ft. wide by 27 ft. long	N/A	Concrete and wood building
Trash Racks	18.6 ft. wide by 14.6 ft. high with 2-inch clear spacing	N/A	Steel
Pipeline	9,110 ft. long by 5.5 ft. to 6.3 ft. diameter	N/A	Steel and steel encased in concrete
Fish Passage Structure (non-operational)	3 ft. wide by 18 ft. long	N/A	Concrete
Generator	Rated at 1.0 power factor, 360 rpm, three-phase, 60 cycles, and 2,300 volts, under 185-ft head.	3,850 kW	Steel
Powerhouse	73.5 ft. long by 56.4 ft. wide	3.85 MW	Brick and concrete
Turbine	N/A	3,850 kW generating unit (5,000 HP) operating under a head of 185 ft.	Steel
Discharge Pipeline (Draft tube)	N/A	N/A	Steel
Transmission Line	77 ft. long	46 kilovolts (kV)	Steel tower and wire

2.1.7 Project Photos

2.1.7.1 DIVERSION DAM

The diversion dam is constructed of concrete and is 27 feet high and 114 feet long (Photos 1 and 2).



Photo 1. Diversion Dam



Photo 2. Diversion Dam and Intake Street Level View

The intake structure, located in the white building shown in Photo 2, measures approximately 27 feet long and 20 feet wide. Trash racks are located slightly upstream of the intake to ensure debris does not enter the pipeline. Water is diverted from the Weber River into the intake structure and continues down the pipeline. The approximately 1.7-mile-long pipeline (approximately 9,110 feet long) is located partially on land owned by the Union Pacific Railroad, and partially on land managed by the USFS. The pipeline is constructed of concrete and steel (Photo 3). The width ranges from 5.5 to 6.3 feet. The intake structure is located on the dam between the low-level gate and the south buttress wall, housed in a small wood frame intake house. A one-story wood-frame watchman's house (currently unused and proposed for removal as part of the potential intake modernization project listed in Table 4) is located just downstream from the intake house, and is joined to the intake house. The intake diverts flow into a 74-inch-diameter reinforced concrete pipe for the first 125 feet, transitioning to a welded steel pipe. This replaced 2,000 feet of concrete pipe and 7,075 feet of wood stave pipe in 1949. The pipeline is buried along most of its length. It crosses the river on a 99-foot-span riveted steel Howe truss bridge made by the American Bridge Company downstream from the dam.



Photo 3. Pipeline

2.1.7.2 POWERHOUSE

The powerhouse, associated cottages, and diversion dam occupy land managed by the USFS. The 46-kV transmission line is approximately 77 feet long. The dam is located approximately 1.7 miles upstream from the powerhouse. The powerhouse discharges into the Weber River, as shown in Photo 4. The powerhouse (Photo 4 and Photo 5) is approximately 73.5 feet long by 56.4 feet wide, and 29 feet in height to the top of the concrete parapet wall (does not include the height of the stepped roof detail). The powerhouse is a rectangular brick building with a gabled concrete roof supported by riveted steel Fink trusses. The end walls are five bays wide with stepped parapets at the gables. Original window openings have been bricked in. Side elevations are three bays wide, also with infilled window openings. The structure sits on a concrete foundation. Because of its location above the river and next to Interstate 84, it is more visible than the diversion dam and other developed components of the Project Area.

The powerhouse contains a generating unit with a rated capacity of 3,850 kW operating under a head of 185 feet producing a 50-year average annual energy output of 16,926 MWh. The generating unit was manufactured in 1909-1910.



Photo 4. Aerial View of Powerhouse and Substation (Substation is not part of the Project)



Photo 5. Street Level View of Weber Substation (Not part of the Project) and Powerhouse

2.1.7.3 BYPASS REACH AND TAILRACE

The bypass reach is the portion of the Weber River where water is removed from the river between the diversion dam and powerhouse. (Photo 6). The Project bypass reach is approximately two miles long and the upper portion is frequently used by anglers. The bypass reach terminates where the water enters the powerhouse downstream and is returned to the Weber River. The discharge area is approximately 16 feet wide.



Photo 6. Bypass Reach to Powerhouse

2.1.7.4 APPURTENANT FACILITIES AND EQUIPMENT

Plant operators' cottages were built near the Weber powerhouse approximately 1.7 miles downstream of the Weber diversion dam. The entire area, including the plant powerhouse, associated substation, cottages, and associated outbuildings is listed on the National Register of Historic Places as an historic district. Originally known as Devil's Gate (Register No. 89000276), it is now known as the Weber Hydroelectric Plant District.

One section of the flowline, near the Weber powerhouse, was subsequently placed in a three-sided concrete box culvert under the westbound lanes of Interstate 84 when the freeway was constructed in the 1960s.

2.2 PROJECT COSTS § 4.61 (C)(1)(IX)

Table 4. Estimated Capital and Operation and Maintenance (O&M) Costs for Potential Project Upgrades

Year	Upgrades	Capital	O&M
2021	Weber Intake Modernization	\$1,768,000	n/a
2022-2025	Owner's Dam Safety Program Analysis and Implementation	\$115,000	\$50,000 periodically; \$400,000 life-of-license total
2022	Weber Butterfly Valve and Penstock Section	\$640,000	n/a
2022	Weber Penstock Support Structure Upgrade (aka Trestle Work)	\$219,000	n/a

Year	Upgrades	Capital	O&M
2022	Weber Pipeline River Crossing Recoat	\$186,000	n/a
2024	Weber #2 House Removal	\$28,000	n/a
2025	Cathodic Protection	\$691,000	n/a
2029	Weber Penstock and Gate Painting	\$430,000	n/a
2030	Weber Journal Bearing Re-rabbiting	\$59,000	n/a
2030	Weber Flow Monitor Replacement	\$323,000	n/a
2034	Weber Powerhouse Roof Replacement	\$86,000	n/a
2034	Weber Relay Replacement	\$323,000	n/a
Annual	Operations and Maintenance		\$274,000/year \$12,039,000 life-of-license total
Various	Small Projects	\$288,000	n/a

2.3 CAPITAL COSTS AND ESTIMATED O&M COSTS OF PROPOSED ENVIRONMENTAL MEASURES § 4.61 (C)(1)(X)

2.3.1 Protection, Mitigation, and Enhancement Measures (PM&E)

PacifiCorp's Proposed PM&E strategies focus on preserving areas in the watershed that are ecologically important. In situations where habitat impacts are unavoidable and cannot be recovered, PacifiCorp's mitigation strategies have been employed to offset the losses. In cases when a change to the environment occurs, enhancement can help alleviate the effects. Table 5 describes PacifiCorp's current PM&E measures.

Table 5. Existing PM&E Measures

Resource	Environmental Measure	License Article or Other Reference	Compliance History
Fisheries and Aquatic Resources	Maintain required 34-50 cfs minimum stream flow for the bypass reach of the river affected by the Project.	Article 401	Variances average less than once/year, reported to FERC as they have occurred
	Operational measures to reduce impacts to aquatic resources, such as minimizing sediment release during forebay elevation changes, and not flushing sediment from the Project forebay.	Voluntary	Full compliance
Botanical Resources	Annual consultation with the USFS regarding any planned maintenance or operational measures that would involve ground-disturbing activities.	Article 104	Full compliance
	Annual weed control around the Project recreation site, dam and flowline intake, and powerhouse/cottage area.	Voluntary	Full compliance
Terrestrial Wildlife Resources	Annual consultation with the USFS regarding any planned maintenance or operational measures that could impact wildlife habitat.	Article 104	Full compliance

Resource	Environmental Measure	License Article or Other Reference	Compliance History
Cultural Resources	Implementation of a Cultural Resources Management Plan.	Article 403	Full compliance
Recreation Resources	Construction (completed in 1992) and maintenance of the existing recreation site consisting of the following: a paved parking area, five picnic tables, a grassy area, fishing access to the Weber River downstream of the dam, fishing access to the forebay with a handicapped-accessible platform, and a portable toilet that is available on a seasonal basis.	Article 405	Full compliance

Table 6 details proposed PM&E measures under the new License. All existing PM&E measures (those shown in Table 5) are also part of the proposed mitigation measures. Table 7 details the costs of both the existing and proposed mitigation measures. All Weber relicensing stakeholders signed a Memorandum of Agreement regarding the Proposed PM&E measures, with the exception of the Utah Department of Environmental Quality - Division of Water Quality (UDWQ), who instead sent a letter of support for the proposed PM&E measures (also see Exhibit E, Appendix A).

Table 6. Proposed PM&E Measures

Resource	Proposed PM&E Measure
Geology and Soils	None.
Water Resources (Hydrology)	HYD-1: Continue existing seasonally-adjusted minimum stream flows (34-50 cfs). Implement annual change, if needed, in required minimum streamflow within 10 days of the final Weber River runoff forecast from Natural Resources Conservation Service (NRCS), using the current formula.
Water Resources (Water Rights)	No PM&E measure is proposed because existing 1938 and 1965 agreements and existing water rights [35-8061—365 cfs flow right, 35-8062—100 af storage, 35-8741—af storage in Echo] will remain unchanged.
Water Resources (Water Quality)	No PM&E measure is proposed because adherence to existing O&M practices is protective of the resource (state water quality standards are being met).
Fisheries and Aquatic Resources	<p>FISH-1: Continue to provide minimum stream flow for the bypassed reach of the river affected by the Weber Project (identical to HYD-1, above).</p> <p>FISH-2: Construct, operate, and maintain a fish ladder suitable for upstream passage of both Bonneville Cutthroat Trout (BCT) and Bluehead Sucker, including a fish trap operated by Utah Division of Wildlife Resources (UDWR) and Trout Unlimited (TU) and maintained by PacifiCorp. PacifiCorp will consult annually with UDWR, TU, and USFS related to fish ladder and trap operation and maintenance according to a Communication Plan developed between UDWR, TU, USFS, U.S. Fish and Wildlife Service (FWS) and PacifiCorp. The Communication Plan will also specify group contacts, alternates, and contact methods over the life of the license.</p> <p>FISH-3: Keep the low-level gate operational when forebay is dewatered subject to operational constraints and requirements such as extreme winter icing conditions (undertake periodic maintenance as required to ensure operation). If the forebay is dewatered and the low-level gate is inoperable for more than 10 days due to extreme temperature or flow conditions, PacifiCorp will consult with UDWR, TU, FWS, Utah Division of Water Quality (UDWQ), and USFS (per the Communication Plan methods) and open the low-level gate as soon as possible.</p> <p>FISH-4: In the event of a prolonged Project outage, keep forebay full if possible to ensure fish ladder operation; PacifiCorp will consult with UDWR, TU, FWS, UDWQ, and USFS (per the Communication Plan methods) to discuss fishway operation during any interim periods exceeding 10 days when neither the low-level gate nor the fishway are operable.</p>
Botanical Resources	<p>BOT-1: Continue existing annual USFS consultation.</p> <p>BOT-2: Conduct weed control per historic practice, adding the area abutting improved Project river access point in riparian habitat (see REC-8, below), subject to landowner weed control requirements and constraints.</p>
Terrestrial Wildlife Resources	WL-1: Continue existing annual USFS consultation.
Cultural and Tribal Resources	CULT-1: Finalize and implement the Historic Properties Management Plan (HPMP) (formerly approved as the Cultural Resources Management Plan [CRMP]).
Recreation Resources	<p>REC-1: Continue to maintain the existing Weber Recreation Site, but with modifications outlined below.</p> <p>REC-2: Coordinate with USFS, UDWR, TU, UDWQ, FWS, and American Whitewater (AW) on improved interpretive signage; include potential for improved technology to include a code that is scan-able and that links to flow information (REC-3). Install signage instructing visitors on dog waste protocol and provide dog waste bags for disposal.</p> <p>REC-3: Create a webpage hosted and maintained by PacifiCorp (linked on both the Corporate website and the Project website) indicating approximate bypass reach flows (program subtracts generation flow from U.S. Geological Survey (USGS) gage site flow and posts it to website)—when minimum streamflow only, the calculated number will be replaced by the phrase “minimum streamflow of approximately 50 cfs or inflow” to eliminate the risk of showing a calculated flow that could be less than the minimum for that period.</p> <p>REC-4: Install and maintain a year-round permanent vault Americans with Disabilities Act (ADA)/Architectural Barriers Act (ABA)-compliant toilet facility (flush bathrooms are available at the Utah Department of Transportation (UDOT) rest stop upstream).</p>

Resource	Proposed PM&E Measure
	<p>REC-5: Consult with USFS to create a new ADA/ABA-compliant accessible picnic site on flat lawn area closest to parking lot (consisting of a concrete pad, a grill, and an accessible picnic table), or to modify the existing site per USFS standards.</p> <p>REC-6: Maintain/repave access road to Weber Recreation Site and existing asphalt path in picnic area.</p> <p>REC-7: Reconfigure former sandbox area fencing to remove south, east, and west portions (retain north portion to partition recreation site from I-84).</p> <p>REC-8: Improve two existing user-created trails located in and outside the Weber FERC Project Boundary:</p> <ol style="list-style-type: none"> In the Project Boundary, improve (construct steps) the existing dirt river access trail at the west end of the recreation site; Outside the Project Boundary, provide \$30,000 through an off-license agreement with TU to fund cooperative effort to improve pedestrian river access (with concurrence from UDOT and the underlying land owner) at the under-freeway user-created trail extending west from the Weber Recreation Site. Proposed improvements would involve breaking up the existing large-boulder surface or backfilling this surface to create a navigable path of smaller rock with minimal width (no paving). Funds provided through the off-license agreement may be used by TU to provide another habitat benefit in the watershed in the event that improving pedestrian river access in the indicated location is infeasible or requires less funding than provided through the agreement. <p>REC-9: Support whitewater boating use of bypass reach: If AW can identify access which it believes to be safe and legal, the USFS and Davis and Weber Counties Canal Company (DWCCC) agree to review the proposed access and the items and improvements needed for safe use, such as but not limited to signage, steps for the portage area, and hazard mitigation. If the USFS agrees, in its sole discretion, that the proposed access is appropriate for public use, PacifiCorp will annually provide boater flows to the bypass reach by curtailing generation (up to 320 cfs or inflow) for 4-hour segments on four Saturdays prior to July 15. Flow schedule and notice to be determined in conjunction with AW, and in coordination with DWCCC and USFS, with the provision that boater flows in the future may be subject to minimum boater use (fewer than a minimum threshold of boaters may result in suspension of boater flows). Specific use triggers and related release changes to be determined¹.</p>
Land Use	None.
Aesthetic Resources	None.
Socioeconomic Resources	None.
¹ See Exhibit E, Section 1.5.3 for clarifications related to REC-9 associated with comments submitted by American Whitewater on the preliminary Draft License Application.	

Table 7. Existing and Proposed PM&E Measure Costs. Values are in 2017 dollars

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
Water Resources and Hydrology	Bypass Reach Minimum Flow			
	<i>Continuous minimum stream flow of 34 cfs or inflow, whichever is less, from October 1-March 31 annually; and, a continuous minimum flow of 34-50 cfs (range dependent on the annual runoff forecast), or inflow, whichever is less, from April 1-September 30 annually.</i>	HYD-1 and FISH-1: Continue existing seasonally-adjusted minimum stream flows (34-50 cfs). Implement annual change, if needed, in required minimum streamflow within 10 days of the final Weber River runoff forecast from NRCS, using the current formula.	N/A	\$129,000 annually; valued at \$5,440,000 total over the life of the new license. Levelized cost of this lost generation is \$6.04/MWh
Fisheries and Aquatic Resources	Upstream Fish Ladder			
	N/A	FISH-2: Construct, operate, and maintain a fish ladder suitable for upstream passage of both BCT and Bluehead Sucker, including a fish trap operated by UDWR and TU and maintained by PacifiCorp. PacifiCorp will consult annually with UDWR, TU, and USFS related to fish ladder and trap operation and maintenance according to a Communication Plan developed between UDWR, TU, USFS, FWS and PacifiCorp. The Communication Plan will also specify group contacts, alternates, and contact methods over the life of the license.	\$2,889,000	\$5,000 annually for facility maintenance; \$185,000 total over the life of the license
	Low Level Gate Operation			
	<i>This measure is in effect when forebay is dewatered to allow fish passage.</i>	FISH-3: Keep the low-level gate operational to allow fish passage when forebay is dewatered, subject to operational constraints and requirements such as extreme winter icing conditions (undertake periodic maintenance as required to ensure operation). If the forebay is dewatered and the low-level gate is inoperable for more than 10 days due to extreme temperature or flow conditions, PacifiCorp will consult with UDWR, TU, FWS, UDWQ, and	\$65,000	\$40,000 periodically; \$160,000 total over the life of the license

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
Fisheries and Aquatic Resources (continued)		USFS and open the low-level gate as soon as possible.		
	Project Operation During Prolonged Outages			
	N/A	FISH-4: In the event of a prolonged Project outage, keep forebay full if possible to ensure fish ladder operation; PacifiCorp will consult with UDWR, TU, FWS, UDWQ, and USFS (per the Communication Plan methods) to discuss fishway operation during any interim periods exceeding 10 days when neither the low-level gate nor the fishway are operable.	\$0	\$1,000 annually; \$44,000 total over the life of the license
Vegetation and Botanical Resources	Annual Consultation			
	<i>Meet each year with the USFS to review any planned maintenance or operational measures that would involve ground-disturbing activities.</i>	BOT-1: Continue existing annual USFS consultation	\$0	\$2,000 annually; \$78,000 total over the life of the (includes costs for WL-1, below)
	Annual Weed Control			
	<i>Complete weed management activities around the Project recreation site, dam and flowline intake, and powerhouse/cottage area.</i>	BOT-2: Conduct weed control per historic practice, adding the area abutting improved Project river access point in riparian habitat (see REC-8, below), subject to landowner weed control requirements and constraints.	\$0	\$2,000 annually; \$76,000 total over the life of the license
Terrestrial and Wildlife Resources	Annual Consultation			
	<i>Meet each year with the USFS to review any planned maintenance or operational measures that could impact wildlife habitat.</i>	WL-1: Continue existing annual USFS consultation.	\$0	\$0 additional (included as part of BOT-1, above)
Cultural and Tribal Resources	Cultural Resources Management Plan (CRMP)			
	<i>Plan currently serves to identify, evaluate, document, register, and establish basic information about known and discovered cultural resources so that proper planning can take place to protect cultural</i>	CULT-1: Finalize and implement the updated HPMP (formerly approved as the CRMP).	\$6,000	\$15,000 total over the life of the license

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
	<i>and historic resources and provide stewardship to these resources.</i>			
Recreational Resources	Day-Use Site			
	<i>Construction (completed in 1992) and maintenance of the existing recreation site consisting of the following: a paved parking area, five picnic tables, a grassy area, fishing access to the Weber River downstream of the dam, fishing access to the forebay with a handicapped-accessible platform, and a portable toilet that is available on a seasonal basis</i>	REC-1: Continue to maintain the existing Weber Recreation Site, but with modifications outlined below.	\$0	Included in O&M costs in Table 4, above
	Interpretive Signs at Recreation Site			
	<i>Signs are posted and include required FERC Form 80 signage, site rules and regulations, and some additional interpretive signage.</i>	REC-2: Coordinate with USFS, UDWR, TU, UDWQ, FWS, and AW on improved interpretive signage; include potential for improved technology to include a code that is scan-able and that links to flow information (REC-3). Install signage instructing visitors on dog waste protocol and provide dog waste bags for disposal.	\$15,000	\$25,000
	Website Outreach			
	N/A	REC-3: Create a webpage hosted and maintained by PacifiCorp (linked on both the Corporate web site and the Project web site) indicating approximate bypass reach flows (program subtracts generation flow from USGS gage site flow and posts it to website)—when minimum streamflow only, the calculated number will be replaced by the phrase “minimum streamflow of approximately 50 cfs or inflow” to eliminate the risk of showing a calculated flow that could be less than the minimum for that period.	\$20,000	\$0

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
Recreational Resources (continued)				
	Restroom			
	<i>Maintain seasonal restroom facilities (currently these are portable restrooms) at Weber Recreation Site.</i>	REC-4: Install and maintain a year-round permanent vault ADA/ABA-compliant toilet facility (flush bathrooms are available at the UDOT rest stop upstream).	\$64,000	Included in O&M costs in Table 4, above
	ADA-Compliant Access			
	<i>Some ADA access provided at Weber Recreation Site, although standards have changed since 1992 installation.</i>	REC-5: Consult with USFS to create a new ADA/ABA-compliant accessible picnic site on flat lawn area closest to parking lot (consisting of a concrete pad, a grill, and an accessible picnic table), or to modify the existing site per current USFS standards.	\$20,000	\$0 (maintained with overall recreation site)
	Access Road and Path			
	<i>This PM&E measure was implemented as part of original recreation site construction in 1992.</i>	REC-6: Maintain/repave access road to Weber Recreation Site and existing asphalt path in picnic area.	\$100,000	As needed; \$44,000 total over the life of the license
	Recreation Site Fencing			
	<i>Fencing was installed during original recreation site construction in 1992, but modifications are proposed as part of the current relicensing.</i>	REC-7: Reconfigure former sandbox area fencing to remove south, east, and west portions (retain north portion to partition recreation site from I-84).	\$12,000	\$2,000 periodically; \$20,000 over the life of the license
	Pedestrian River Access			
	N/A	REC-8: Improve two existing user-created trails located in and outside the Weber FERC Project Boundary: a. In the Project Boundary, improve (construct steps) the existing dirt river access trail at the west end of the recreation site; b. Outside the Project Boundary, provide \$30,000 through an off-license agreement with TU to fund cooperative effort to improve pedestrian river access (with concurrence from UDOT and the	a. \$22,000 b. \$50,000	Included in REC O&M cost above \$0

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
Recreational Resources (continued)		underlying land owner) at the under-freeway user-created trail extending west from the Weber Recreation Site—proposed improvements would involve breaking up the existing large-boulder surface or backfilling this surface to create a navigable path of smaller rock with minimal width (no paving). Funds provided through the off-license agreement may be used by TU to provide another habitat benefit in the watershed in the event that improving pedestrian river access in the indicated location is infeasible or requires less funding than provided through the agreement.		
	Boating Use of Bypass Reach N/A	REC-9: Support whitewater boating use of bypass reach: If AW can identify access which it believes to be safe and legal, the USFS and DWCCC agree to review the proposed access and the items and improvements needed for safe use, such as but not limited to signage, steps for the portage area, and hazard mitigation. If the USFS agrees, in its sole discretion, that the proposed access is appropriate for public use, PacifiCorp will annually provide boater flows to the bypass reach by curtailing generation (up to 320 cfs or inflow) for 4-hour segments on four Saturdays prior to July 15. Flow schedule and notice to be determined in conjunction with AW, and in coordination with DWCCC and USFS, with the provision that boater flows in the future may be subject to minimum boater use (fewer than a minimum threshold of boaters may result	\$10,000	\$4,000 annually; \$166,000 total over the life of the license.

Resource Area	Existing PM&E	Proposed PM&E	Capital Costs of Proposed PM&E	O&M Costs of Proposed PM&E
		in suspension of boater flows). Specific use triggers and related release changes to be determined. ¹		
¹ See Exhibit E, Section 1.5.3 for clarifications related to REC-9 associated with comments submitted by American Whitewater on the preliminary Draft License Application.				

3.0 PROJECT PURPOSE § 4.61 (C)(2)

FERC, when issuing a new license for the Project, requires that PacifiCorp undertake appropriate measures to promote both the development (power) and non-development uses (e.g., scenic, recreational, environmental) of the waterway. These public interest uses, identified by FERC in its licensing orders, constitute the “project purpose.” The Project is owned and operated by PacifiCorp to provide electricity to its customers. The Project lands enclose only the lands necessary to operate and maintain the Project and for other purposes such as recreation, shoreline control, or protection of environmental resources.

The Project Boundary is an administrative marker that clearly delineates those lands necessary for the operation and maintenance of the Project and for other Project purposes. These lands are determined through Exhibit G (Project Boundary maps) reflecting the inclusion or exclusion of certain lands.

Continued operation of the Project as proposed under a new license would provide affordable renewable hydroelectric generation to meet a portion of local power requirements, resource diversity, and capacity needs in the northern Utah region of PacifiCorp’s service territory.

4.0 APPLICATION DEVELOPMENT COSTS § 4.61 (C)(3)

The current budget estimate for the development of the new license application and associated materials is currently \$1,099,000.

5.0 ON-PEAK AND OFF-PEAK VALUES OF PROJECT § 4.61 (C)(4)

The Project is only operated in run-of-river mode, and therefore, estimated values of on- and off-peak Project power are not required.

6.0 ESTIMATED CHANGE IN PROJECT GENERATION § 4.61 (C)(5)

The Project will continue to operate as a run-of-river facility, with new PM&E efforts for recreation (boating) flows and a new proposed fishway modifying the manner, but not the timing nor the volume, of minimum flows in the bypass reach.

The recreation-related PM&E measure deals with supporting potential whitewater boating use of the bypass reach. In the event that a safe and legal egress site is identified by the boating community and agreed to by the USFS and PacifiCorp, PacifiCorp would provide boater flows to the bypass reach by curtailing generation (up to 320 cfs or inflow) for 4-hour segments on four Saturdays prior to July 15 annually, for a total of up to 16 hours (48 MWh) annually of potential lost generation. The exact schedule of this provision of boater flows would be determined in conjunction with AW and coordinated with the USFS and DWCCC. Boater flows in the future may be subject to minimum boater use. The Project operations described in this section would remain the same under the proposed action. Therefore, the value of power due to Project changes is expected to change minimally (up to 48 MWh annually, if approved) under the new license.

7.0 UNDEPRECIATED NET INVESTMENT (BOOK VALUE) OF THE PROJECT § 4.61 (C)(6)

As of December 31, 2016, PacifiCorp had incurred an Original Cost Investment of \$4,554,002, Accumulated Depreciation of \$3,201,688, and a Net Book Value of \$1,352,314 for the Project.

8.0 ESTIMATED ANNUAL COST OF THE PROJECT § 4.61 (C)(7)

Project costs were calculated using rate-based methodology that incorporates existing net investment, routine hydro operations O&M, property and income taxes, depreciation and amortization, deferred taxes, and rate of return (PacifiCorp is self-insured).

The total Project forecast period is 44 years², from 2017 to 2060. Period of analysis is based on PacifiCorp's financial model duration. The annual inflation rate estimate is 2.53%. PacifiCorp's discount rate of 6.59% is based on the after-tax, weighted average cost of capital.

Property taxes paid on the Project were 1.51% of the 2016 net book value, or \$20,409, in 2016 (2016 is the last year calculated at the time of this analysis). PacifiCorp's corporate tax rate is 37.951%. See Tables 8 and 9 for additional information regarding analysis period capital expenses.

Table 8. Project's Capitalized Expenses for Period of 44 Years

Item	44-year Total (2016 \$s, Millions of \$s)	Present Value Cost (2016 \$s, Millions of \$s)
Property Taxes	1,869	694
Book Depreciation	48,189	6,414
Rate of Return @7.56%	10,872	4,121
Current and Deferred Income Taxes	4,420	1,680
Total	\$66,349	\$12,909

Table 9. Project's Capitalized Expenses for Period of 44 Years With Inflation

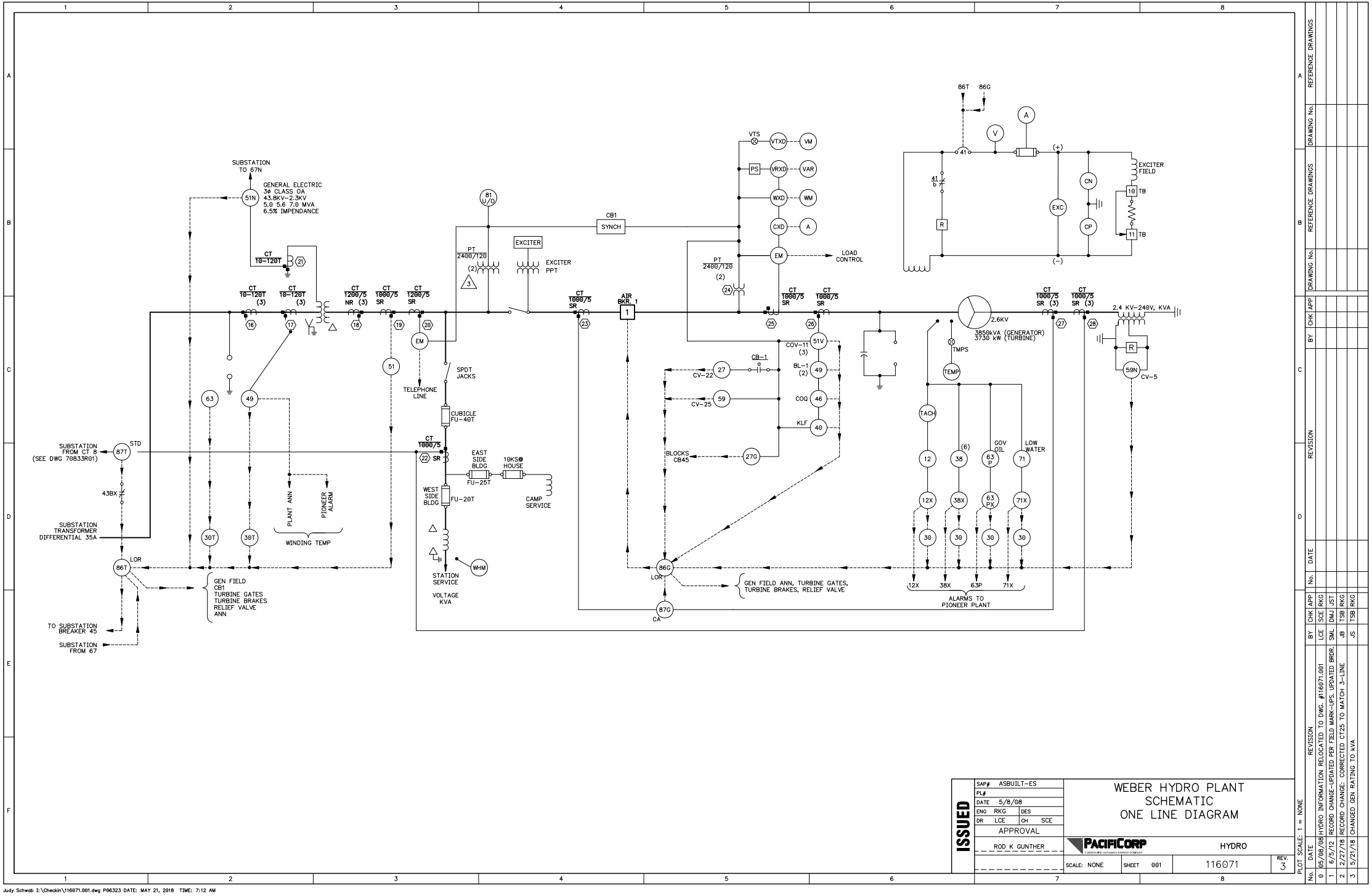
Item	44-year Total (2016 \$s, Millions of \$s)	Present Value Cost (2016 \$s, Millions of \$s)
Routine O&M	12,039	5,421
Dam Safety	400	176
Impoundment Dredging/Maintenance	160	69
1965 Contract	(401)	(181)
Implementation O&M	345	141
Total	\$12,543	\$5,626

O&M estimates can vary significantly from year to year. PacifiCorp estimates are based on historical data as well as budget forecast estimates. Annual Project routine O&M costs were \$273,619 in 2016 dollars, totaling \$12 million over the 44-year analysis period. This estimate is

²PacifiCorp uses a financial model that considers the future 44-year period. It is expected that the analysis outcome for a 50-year analysis period (PacifiCorp is proposing a 50-year license period) is not significantly different than a 44-year period, due to the time-value of money nearing the end of the forecast period, and the additional level of uncertainty and risk injected into the analysis. This uncertainty, specifically affecting the analysis of the rate of inflation and the forward power cost price curve, has the effect of making the forecasted differences between the 44- and a 50-year mark meaningless. It is expected that a 50-year license would slightly improve the net customer benefit calculated in the current 44-year analysis from the generation benefit of a zero-fuel cost generating asset while adding no additional insight from a financial analysis perspective.

based on the average of the prior three years of FERC Form 1 costs directly attributable to the Project reduced by relicensing implementation expenses. Table 9 shows the projected expenses to operate the Project for 44 years, unadjusted for inflation. The far-right column shows the total 44-year inflated costs, on a 2016 present value basis discounted at 6.59%.

9.0 SINGLE LINE ELECTRICAL DIAGRAM § 4.61 (C)(8)



10.0 MEASURES TO ENSURE SAFE MANAGEMENT § 4.61 (C)(9)

Per Section 10(c) of the Federal Power Act (FPA), FERC is authorized to establish regulations requiring licensees to operate and properly maintain their projects for the protection of life, health, and property. The Weber Project dam is classified as a low hazard rating with a regulatory inspection frequency of every three years; however, several measures are taken to ensure safe management of the Project, as described in the following sections.

10.1 OWNER'S DAM SAFETY PROGRAM

The purpose of the Owner's Dam Safety Program (ODSP) is to define the procedures and actions that are to be taken by its employees and representatives to ensure that all dams and related water retaining structures are designed, constructed, maintained and operated in a manner sufficient to protect the public and its employees from the consequences of an unplanned event that could result in the uncontrolled release of water. On December 18, 2013, PacifiCorp filed a new ODSP with FERC. On February 24, 2015, FERC requested additional information and provided comments on the 2013 ODSP. On February 10, 2017, PacifiCorp filed a revised final of the 2013 ODSP. Several elements specific to the Weber Hydroelectric Project are currently planned for implementation in 2022. The Public Safety Program Elements of this ODSP consist of Emergency Action Plans (EAPs), Public Safety Plans (PSPs) and Security Plans. These are utilized to protect the public and provide notification to Emergency Management Agencies and/or the public if a course of events could or are leading to the uncontrolled release of water from a dam.

10.1.1 Emergency Action Plan

The EAP is a formal document that identifies potential emergency conditions at a dam and specifies a preplanned set of actions to be followed to minimize the notification time to the public and enable emergency management authorities to facilitate evacuations in the event of a failure. The Weber Project has been granted annual exemptions from the requirement of filing an EAP. As required by 18 CFR 12.21, PacifiCorp conducts annual comprehensive reviews of circumstances upstream and downstream of this Project to determine if there are changes that would endanger life, health, or property. Upon completion of these reviews, annual EAP exemptions are requested.

10.1.2 Public Safety Plan

A Public Safety Plan (PSP) is a formal document that identifies the location of specific safety features intended to provide the public with information about potentially hazardous conditions and areas restricted from public access, in and around PacifiCorp's dams and related facilities.

FERC requested that PacifiCorp submit a PSP for the Project on January 26, 1993. PacifiCorp subsequently filed the new PSP on April 28, 1993. PSPs are updated periodically and on December 18, 2014, PacifiCorp submitted a revised Project PSP. Another revision to PSP Figures 5-7 was submitted on December 6, 2017.

10.1.3 Site Security

PacifiCorp's Weber Project security consists of specific physical security measures such as locked gates, locked powerhouse doors, security fences and gates (some with razor wire to discourage unauthorized access), alarms, 24/7 electronic monitoring, and the potential for 24/7 access by the plant operators. These have been implemented to prevent an attack on the dam or other Project features that could result in an emergency condition leading to the potential uncontrolled release of water or a threat to public safety.

10.1.4 Continuous Improvement

Continuous improvement requires an organizational environment that enables identification and learning of relevant information to improve both the content and execution of PacifiCorp's ODSP on a continual basis. PacifiCorp formally maintains a "Plan/Execute/Measure/Correct" management system in order to ensure this cycle of continuous improvement. The most important role in ensuring the continued safe and efficient operation of PacifiCorp's dams belongs to PacifiCorp personnel. Efficient paths of communication have been established between all segments of PacifiCorp's organization including open sharing and distribution of information upward and downward within the organization. Implementation of the system, including annual training, places an emphasis on the importance of information sharing amongst PacifiCorp personnel. The results of assessments and audits of this ODSP are shared within the PacifiCorp organization as lessons identified become available. Where applicable, company procedures for "root cause" and "significant event report" type analyses are utilized to investigate events.

10.2 ENVIRONMENTAL INSPECTION REPORT

On May 15, 2017, FERC notified PacifiCorp that Environmental Inspections would be conducted at the project site on June 13, 2017 and June 14, 2017. On June 23, 2017, FERC issued the results of the 2017 Environmental Inspection. PacifiCorp completed the action items noted below on/before July 21, 2017.

Table 10. Environmental Inspection Action Items 2017

Action Item	Status
Trim the vegetation at the entrance to the accessible fishing pier upstream of the Weber Diversion Dam and report back on its completion within 30 days of the date of this letter.	Completed
Replace the missing grills and report back on their replacement within 30 days of the date of this letter	Completed
Boater warning signage upstream of the dam was obscured by overgrown willows. This vegetation should be trimmed to make the signage adequately visible to recreationists. [Suggested but not required.]	Completed
Barbed wire along the peak of the fence on the north side of the diversion dam had been cut, and should be repaired. [Suggested but not required.]	Completed
Sizable gap under the southwest gate to the powerhouse switchyard. This gap should be closed to prevent unauthorized access to the switchyard. [Suggested but not required.]	Completed

Based on file reviews, discussions, and field observations made during that inspection, the Project was in compliance with the license articles related to fish and wildlife, recreation,

public safety, and cultural resources.³ Follow-up items needing action were noted during inspections of the Project, however as noted above, these items have since been completed.

³ Article 104 requires the Licensee to consult with the Forest Service annually with regard to measures needed to ensure protection and development of the natural resources values of the project area. Article 401 requires minimum flow releases of 34 cfs or inflow (whichever is less) from Oct. 1 to Mar. 31; and 50 cfs or inflow (whichever is less from Apr.1 to Sep. 31. Article 402 requires the licensee to install and maintain streamflow gages in the Weber River to monitor flows of Article 401. Part 8 requires recreational signage and postings. Article 405 requires the Licensee to develop a day-use area near the UDOT rest stop and file associated activities with Phase II and III of the recreation plan. Article 406 authorizes the Licensee to grant permission for certain types of land use and occupancy on the Project lands and waters prior to Commission approval. Article 403 requires the Licensee to consult with the SHPO prior to any future land disturbing activities within the Project Boundary. Article 404 requires the Licensee to consult with the SHPO before starting any land disturbing activities and conduct a CRMP. 18 CFR Part 12 requires the Licensee to maintain facilities and measures to ensure public safety.

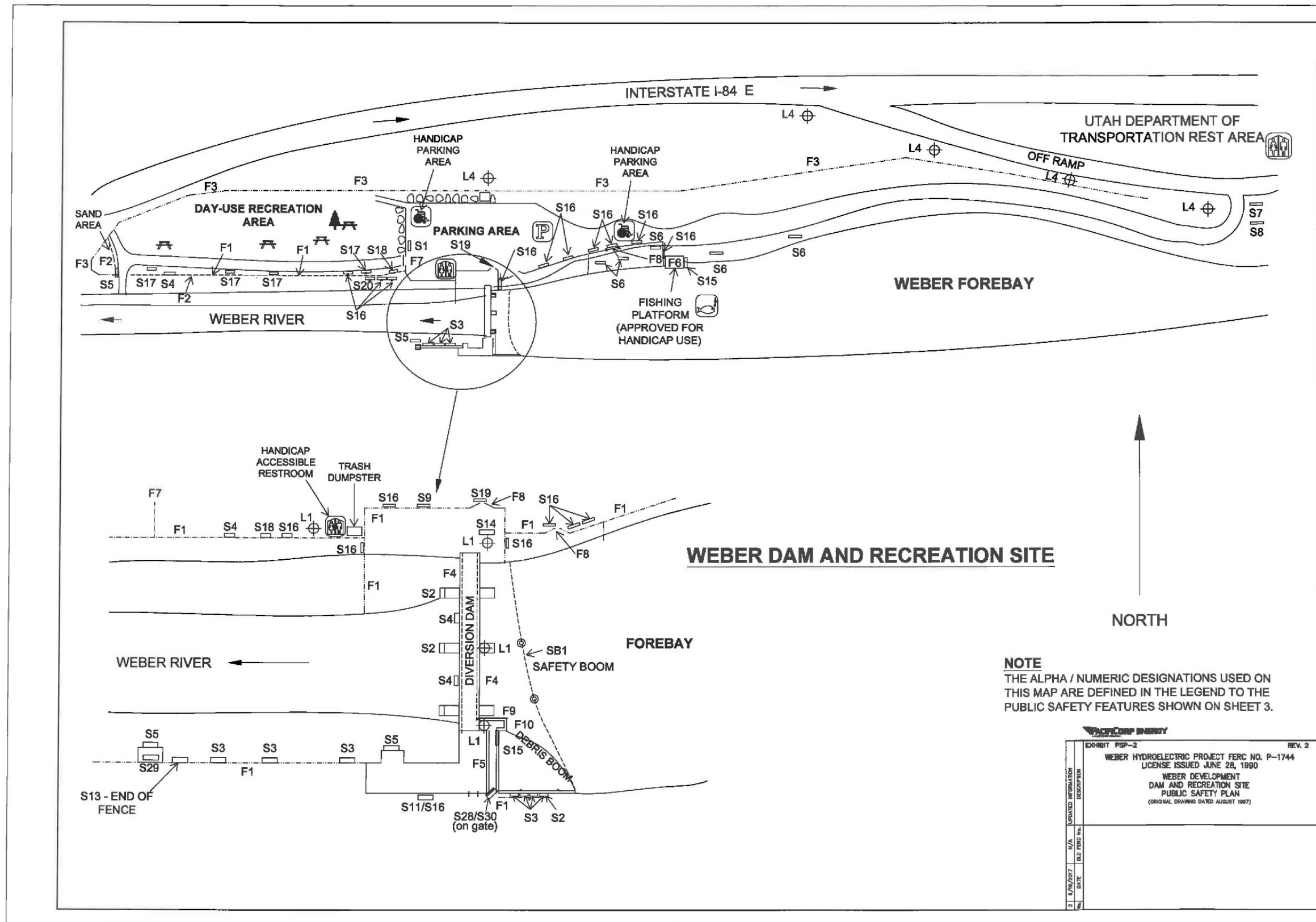


Figure 6. Weber Project Current Public Safety Plan Part 12 Signage (Dam and Recreation Site)

LEGEND TO PUBLIC SAFETY PLAN

S = SIGNS

- S1 -WEBER HYDROELECTRIC PROJECT
Licensed by
Federal Energy Regulatory Commission
Department of Energy
Project No. 1744
Further information may be obtained by calling:
PACIFICORP 801-220-2245
- DAY-USE RULES
- S2 -DANGER
KEEP OFF (10"x14")
- S3 -UP&L
PRIVATE PROPERTY
NO TRESPASSING (10"x14")
- S4 -DANGER
RIVER SUBJECT TO RAPID RIVER
FLUCTUATION (10"x14")
- S5 -WARNING
RIVER MAY RISE RAPIDLY
STAY OUT / STAY ALIVE
LISTEN FOR HORN (20"x24")
- S6 -WARNING - HAZARDOUS WATER CONDITIONS
NO SWIMMING / STAY OUT / STAY ALIVE
(15"x20")
- S7 -STOP SIGN (2'x2')
- S8 -RIGHT TURN ONLY (20"x24')
- S9 -CAUTION WEAR PROTECTIVE EQUIPMENT
(12"x18")
- S10 -DANGER
HIGH VOLTAGE (10"x12")

S = SIGNS

- S11 -CAUTION: This Building Is Alarmed (8"x6")
- S12 -DANGER - Admittance By Authorized Personnel Only
(18"x14")
- S13 -DANGER
Do Not Walk On Pipe (24"x24")
- S14 -NO TRESPASSING
Closed To The Public (10"x14")
- S15 -DANGER
DAM & SPILLWAY AHEAD (24"x36")
- S16 -NO TRESPASSING OR LOITERING ON THIS PROPERTY
VIOLATORS WILL BE PROSECUTED (10"x14")
- S17 -DANGER
RIVER RISES RAPIDLY LISTEN FOR HORN (15"x20")
- S18 -NOTICE – Anglers Access 450 Feet (10"x14")
- S19 -NOTICE - IN THE EVENT OF AN EMERGENCY INVOLVING
THIS SITE, PLEASE CALL HYDRO CONTROL CENTER
877-562-9928
- S20 -NO TRESPASSING
- S21 -NOTICE - THESE PREMISES PROTECTED BY ALARM
- S22 -DANGER HIGH VOLTAGE ABOVE KEEP OFF
- S23 -PACIFICORP A MIDAMERICAN ENERGY
COMPANY - WEBER PLANT
- S24 -PACIFICORP A MIDAMERICAN ENERGY COMPANY - HYDRO
RESOURCES - NOTICE - AUTHORIZED PERSONNEL ONLY
- CAUTION WEAR PROTECTIVE EQUIPMENT
- DANGER HIGH VOLTAGE
- WEAR HEARING PROTECTION WHEN EQUIPMENT
IS OPERATING
- S25 -ROCKY MOUNTAIN POWER - A DIVISION OF PACIFICORP
PRIVATE PROPERTY - NO TRESPASSING -
PROPIEDAD PRIVADA
- PROHIBIO EL PASO
- S26 -WEBER SUBSTATION
- S27 -ROCKY MOUNTAIN POWER - A DIVISION OF PACIFICORP
WEBER SUBSTATION OGDEN
- S28 -NOT AN EXIT
- S29 -CAUTION CONFINED SPACE KEEP OUT UNLESS
AUTHORIZED
- S30 -DANGER - RAILROAD CROSSING MUST CONTACT RAILWAY
BEFORE CROSSING (1-888-877-7267)
- S31 -CAUTION CLEARANCE (13'3")

F = FENCING / HANDRAILS

- F1 -Diversion dam security fencing consist of a 7' high
chain link fence with three strands of barbed wire
and razor ribbon around the top.
- F2 -Recreation fencing consist of 48" high chain link
fencing with top rail.
- F3 -Recreation fencing consist of 6' high chain link
fencing with top rail.
- F4 -Diversion dam has 36" high chain link fencing with
top rail on both the upstream and downstream sides.
- F5 -Intake handrails consist of 42" high pipe handrails
located in front of the intake openings.
- F6 -Fishing platform hand railing consist of 42" high steel
handrails.
- F7 -Maintenance road access barrier is a 1-1/2 link chain
supported from 4' diameter poles cemented into the
ground.
- F8 -Steel access gate
- F9 -6' long link chain
- F10 -36" high pipe handrail

L = LIGHTING

- L1 -Diversion dam lighting consist of three mounted
spotlights.
- L2 -Powerhouse lighting consist of building mounted
incandescent lights and pole mounted mercury vapor
lights.
- L3 -Substation lighting consist of 5 incandescent lights
mounted on the switch rack structure.
- L4 -Access road lighting consists of four pole - mounted street
lights.

S = SAFETY DEVICES

- SB1 -There is a 140' long floating safety boom installed
upstream of the dam and intake structure. 2 floats noting "NO
SWIMMING" are equally spaced across the boom. The safety
boom is typically installed each April following ice-off
of the reservoir and removed in October prior to heavy
snowfall.


		REV. 2	
EXHIBIT PSP-3		WEBER HYDROELECTRIC PROJECT FERC NO. P-1744	
		LICENSE ISSUED JUNE 28, 1990	
		WEBER DEVELOPMENT	
		LEGEND	
		PUBLIC SAFETY PLAN	
		(ORIGINAL DRAWING DATED AUGUST 1997)	
UPDATED INFORMATION		DESCRIPTION	
N/A		N/A	
6/18/2017		OLD FERC No.	
DATE			
N/A			

Figure 7. Legend for Current Public Safety Plan

APPENDIX A: DETAILED PROJECT LOCATION MAPS

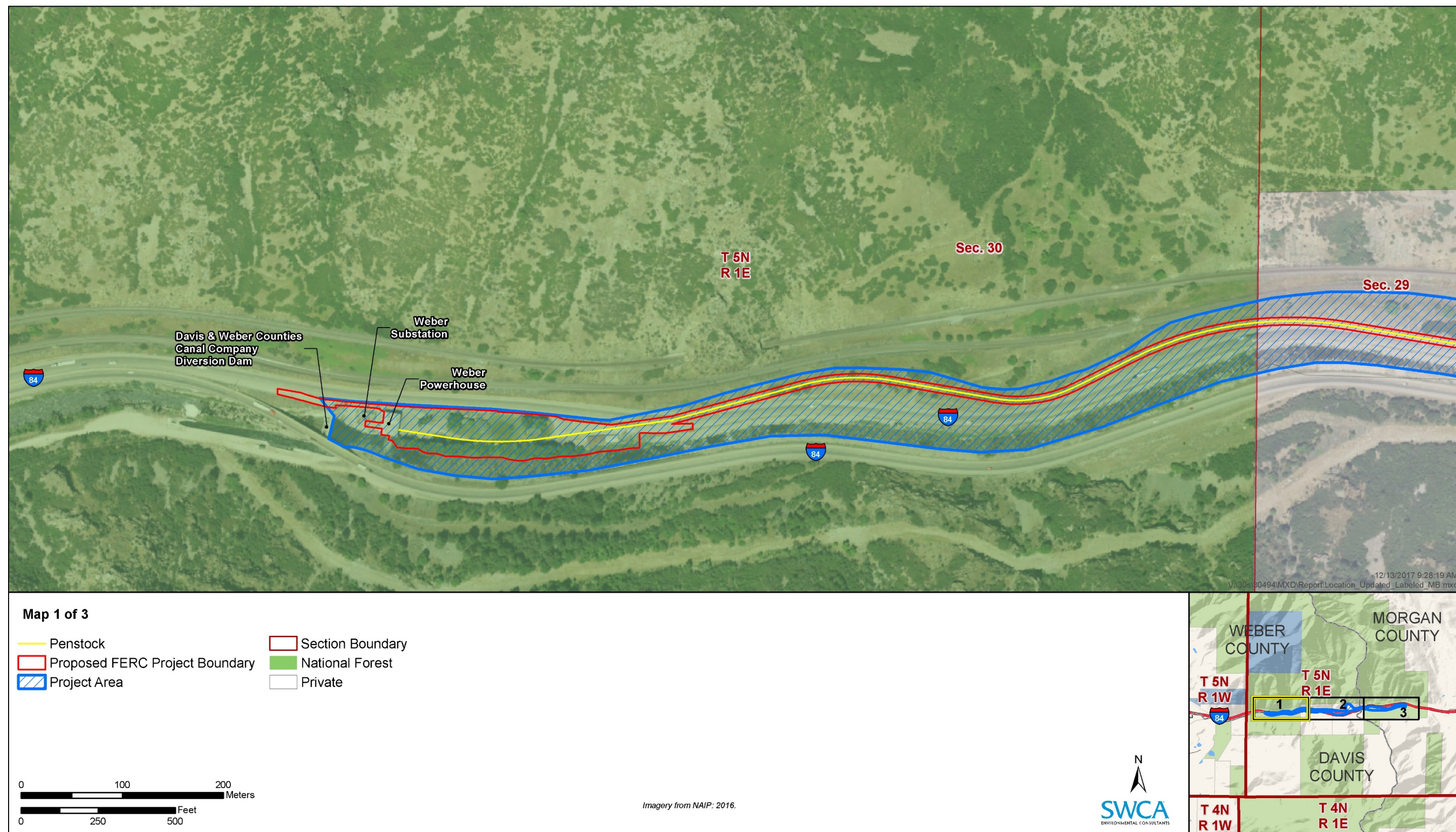


FIGURE A-1. DETAILED PROJECT LOCATION MAP (1 OF 3)

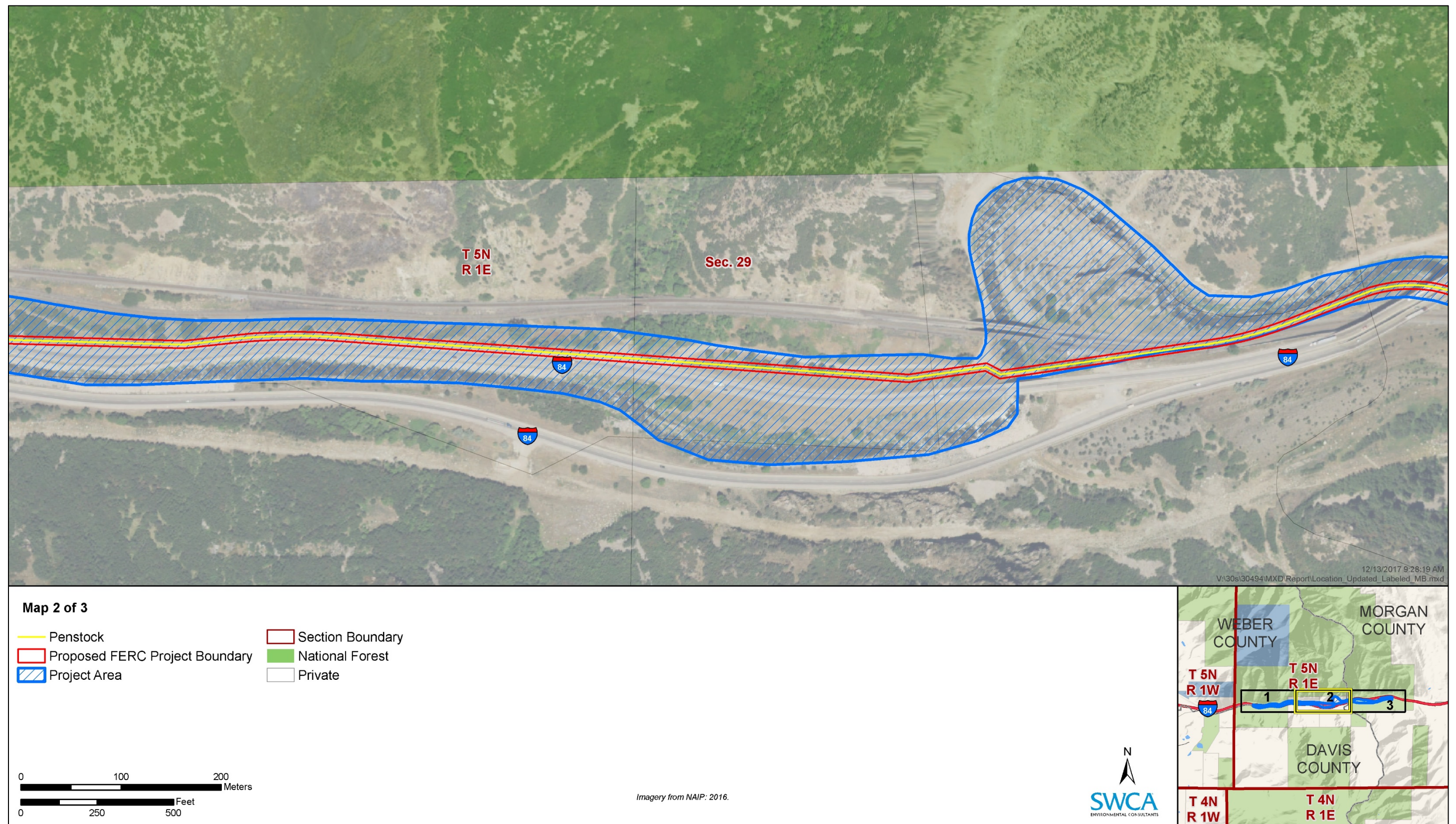


FIGURE A-2. DETAILED PROJECT LOCATION MAP (2 OF 3)

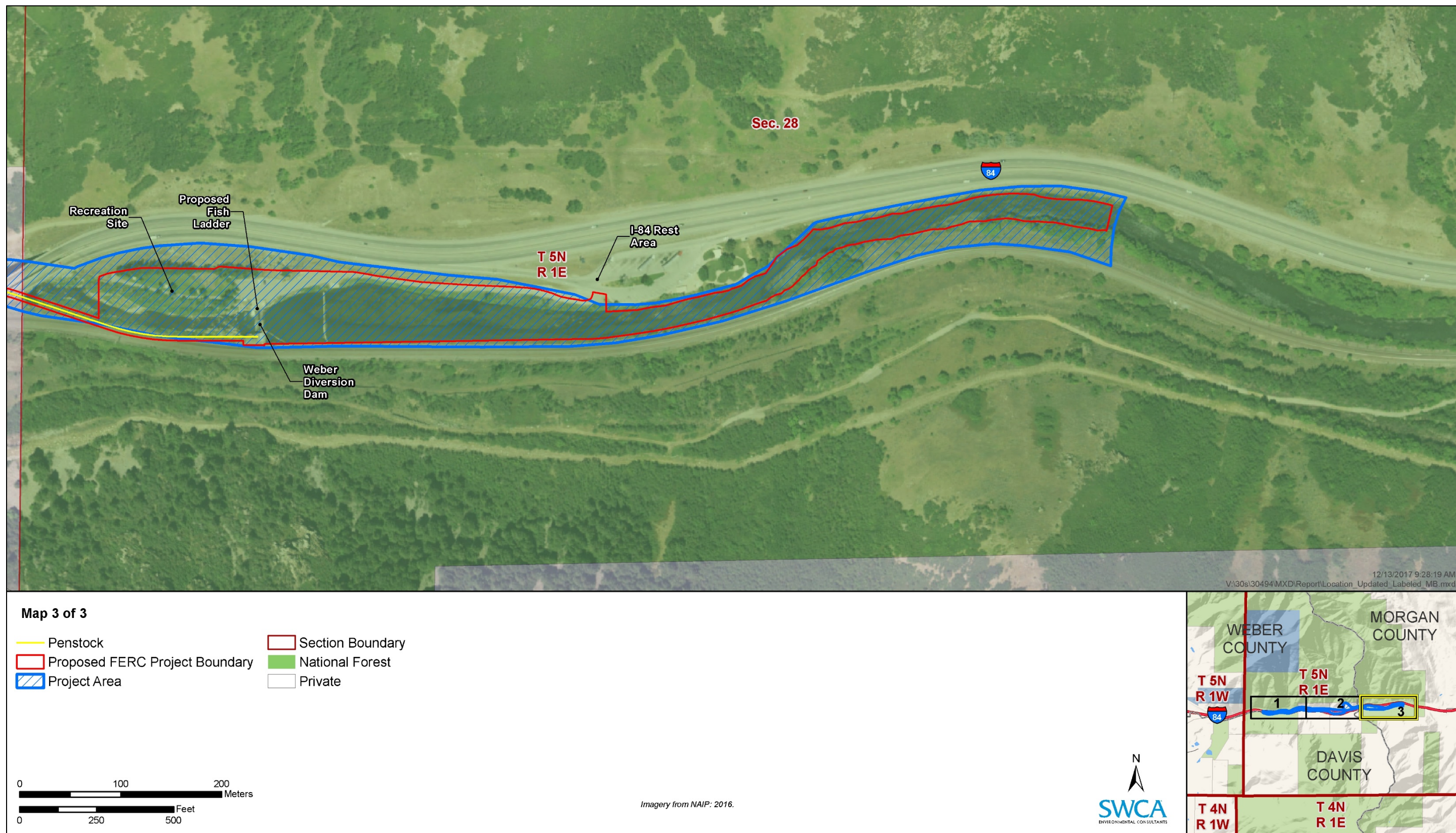


FIGURE A-3. DETAILED PROJECT LOCATION MAP (3 OF 3)

**WEBER HYDROELECTRIC PROJECT
(FERC PROJECT NO. 1744)**

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

EXHIBIT G

PROJECT MAPS



MAY 2018

**FINAL APPLICATION FOR NEW LICENSE
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5 MW**

**WEBER HYDROELECTRIC PROJECT
(FERC PROJECT NO. 1744)**

PACIFICORP

**EXHIBIT G
PROJECT MAPS**

The Weber Hydroelectric Project is located in Weber, Morgan, and Davis counties in the state of Utah. The existing Exhibit G contains three drawings listed below in Table 1.

Table 1. Existing Exhibit G Drawings

Exhibit Sheet	FERC Drawing No.	Title/Showing	Approval Order Date
G-1	1744-19	Project Layout	6/28/1990
G-2	1744-20	Recreation and Forebay Sites	6/28/1990
G-3	1744-21	Existing Weber Plant Site	6/28/1990

The revised Exhibit G replaces the three current drawings with four newly created sheets that consist of a series of three overlapping maps depicting the proposed Project Boundary location and principal features of the Project and a fourth sheet with coordinates, distances, and descriptions for the boundary and flowline (buried pipeline center line) shown on the maps (Table 2). These maps also delineate the land ownership and property interests within that boundary. As part of this Weber Final License Application, PacificCorp will also submit (via overnight delivery) three CDs containing Geographic Information System (GIS) shapefiles for the Project Boundary, federal lands within the boundary, and geo-reference control points, along with metadata text files.

The existing FERC Project Boundary occupies a total of 18.48 acres, of which approximately 15.51 acres (according to the list on sheet G-1, FERC drawing no. 1744-19) are lands of the United States administered by the U.S. Forest Service (USFS).

Table 2. Revised Exhibit G Drawings

Exhibit Sheet	FERC Drawing No.	Title/Showing
G-1	1744-__	Project Boundary Map/shows eastern part of Project
G-2	1744-__	Project Boundary Map/shows central part of Project
G-3	1744-__	Project Boundary Map/shows western part of Project
G-4	1744-__	Project Boundary Description

PacifiCorp proposes to revise the Project Boundary to include additional areas needed for operation and maintenance and exclude areas outside of Project influence. The revised exhibits improve the alignment of the boundary with existing features based on new survey data and aerial imagery (see Figures 1a, b, and c, which detail both the existing and the proposed Project Boundary, and which clearly show the differences between the two). The proposed Project Boundary would occupy a total of 18.08 acres, of which approximately 14.94 acres are lands of the United States administered by the USFS. There is a short segment of transmission line between the powerhouse building and the adjacent substation that occupies approximately 0.02 acres of lands of the United States (0.02 acres occupied by transmission line and the remaining 14.92 acres not occupied by transmission line).

There are several proposed changes to the Project Boundary on federally-owned lands (see Figures 1a, b, and c and Revised Exhibit G sheets G-1 and G-3 [included in Attachment 1]). On revised sheet G-1, the first change includes adjusting the alignment of the Project Boundary along the forebay and recreation area to more accurately follow existing features. The forebay shoreline at the normal maximum pool elevation as depicted on the original Exhibit G sheet G-2 (FERC drawing no. 1744-20), remains the intended boundary but the traverse description on that drawing did not align well with the actual forebay location. The proposed Project Boundary improves alignment with the forebay. Likewise, the portion of the boundary that extends around the recreation area on the north side of the forebay, as shown on the original Exhibit G sheet G-2, required slight adjustments to improve the alignment with existing recreation area features. The proposed Project Boundary continues to run along the north side of the recreation area fence but now it closely follows the north side of the recreation area access road to the junction with the Interstate Highway 84 (I-84) rest area access road which avoids encroachment on the I-84 rest area. The other proposed change in this vicinity includes expanding the boundary approximately 520 feet downstream of the dam to incorporate the river and riparian area that lies between the recreation site and the flowline to provide a management buffer downstream of the dam.

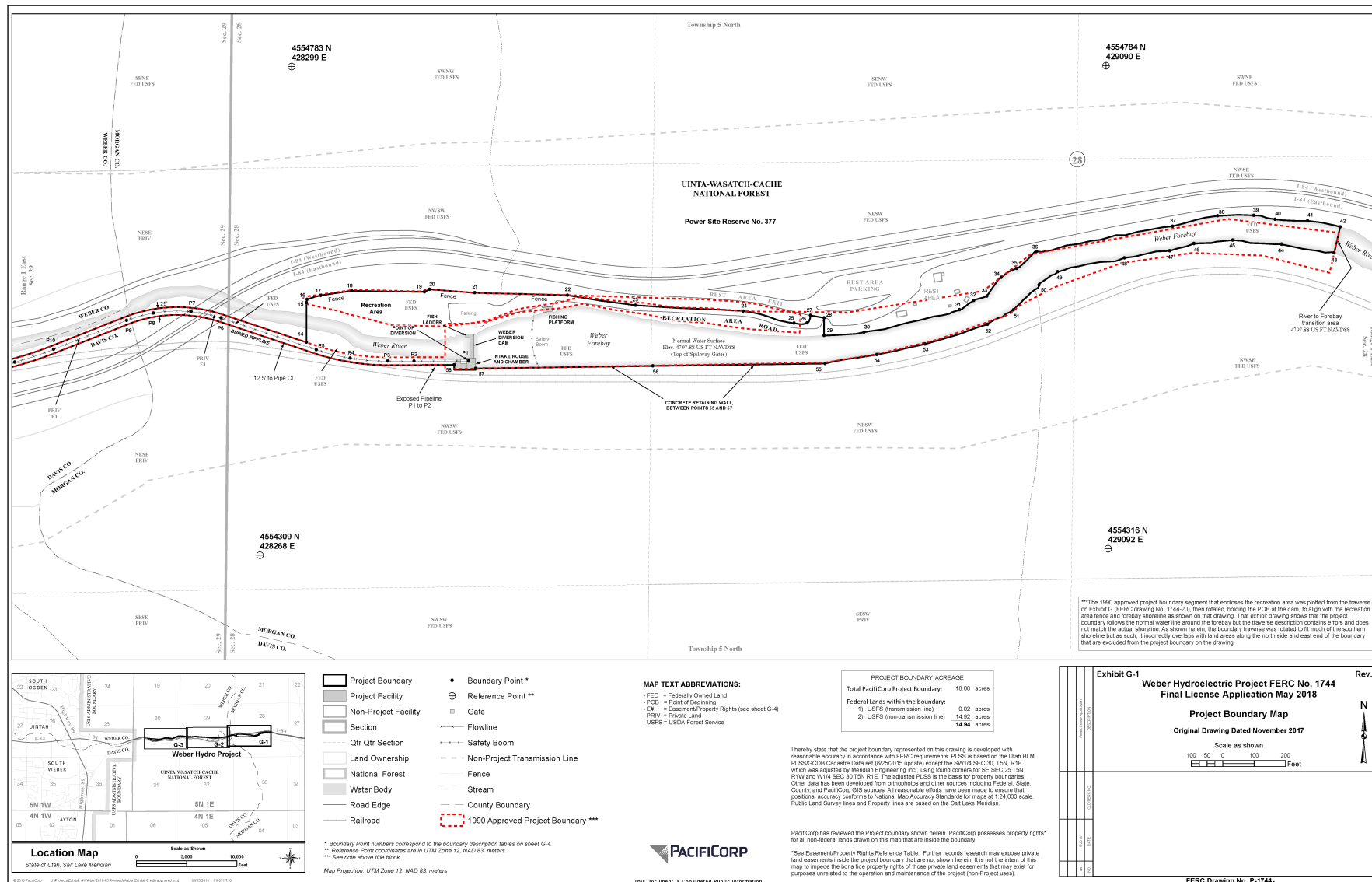


Figure 1a. Project Boundary Comparison Map/Eastern Part

Weber Hydroelectric Project (FERC Project No. 1744)
Final License Application – Exhibit G

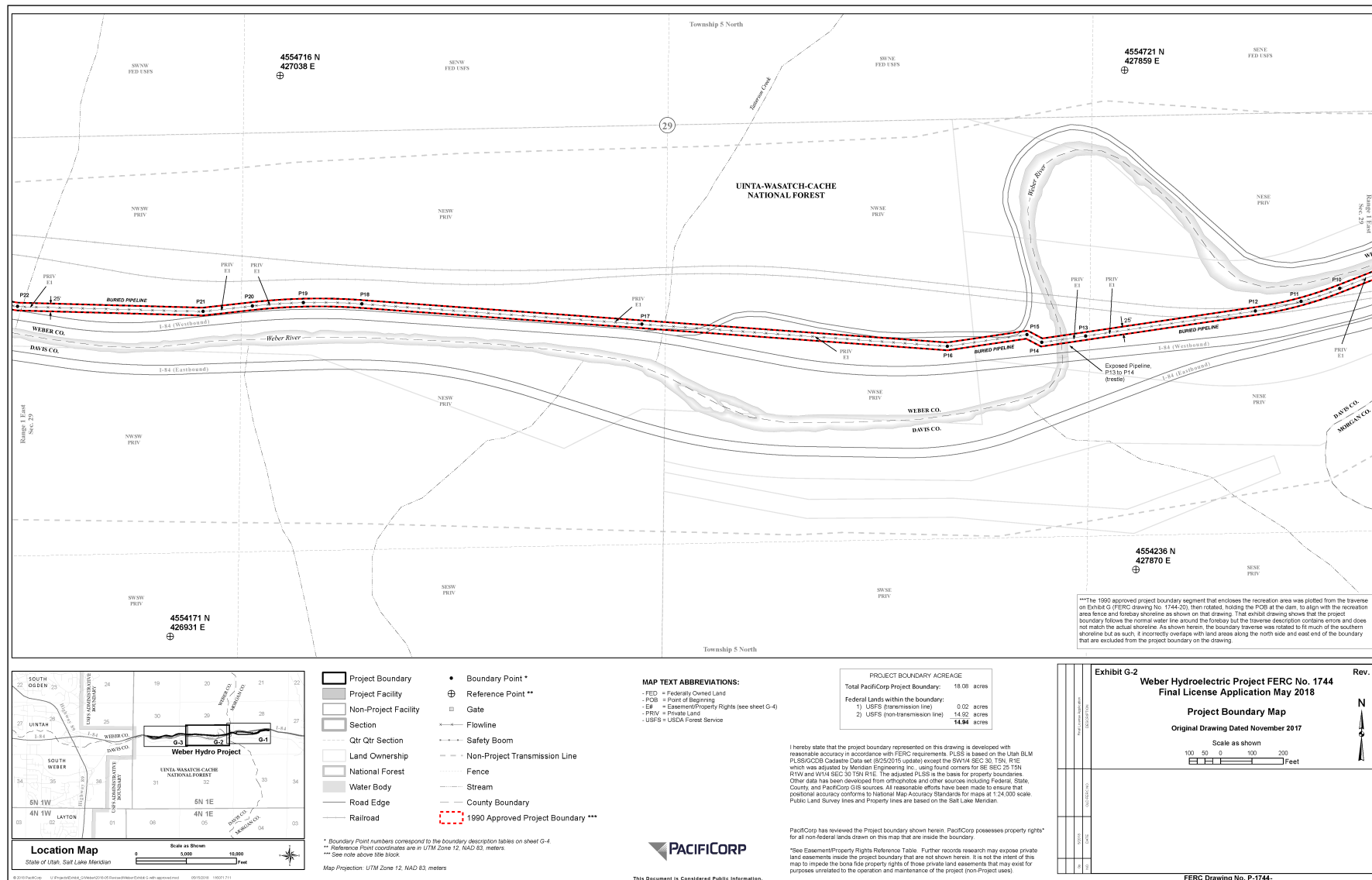


Figure 1b. Project Boundary Comparison Map/Central Part

Weber Hydroelectric Project (FERC Project No. 1744)
Final License Application – Exhibit G

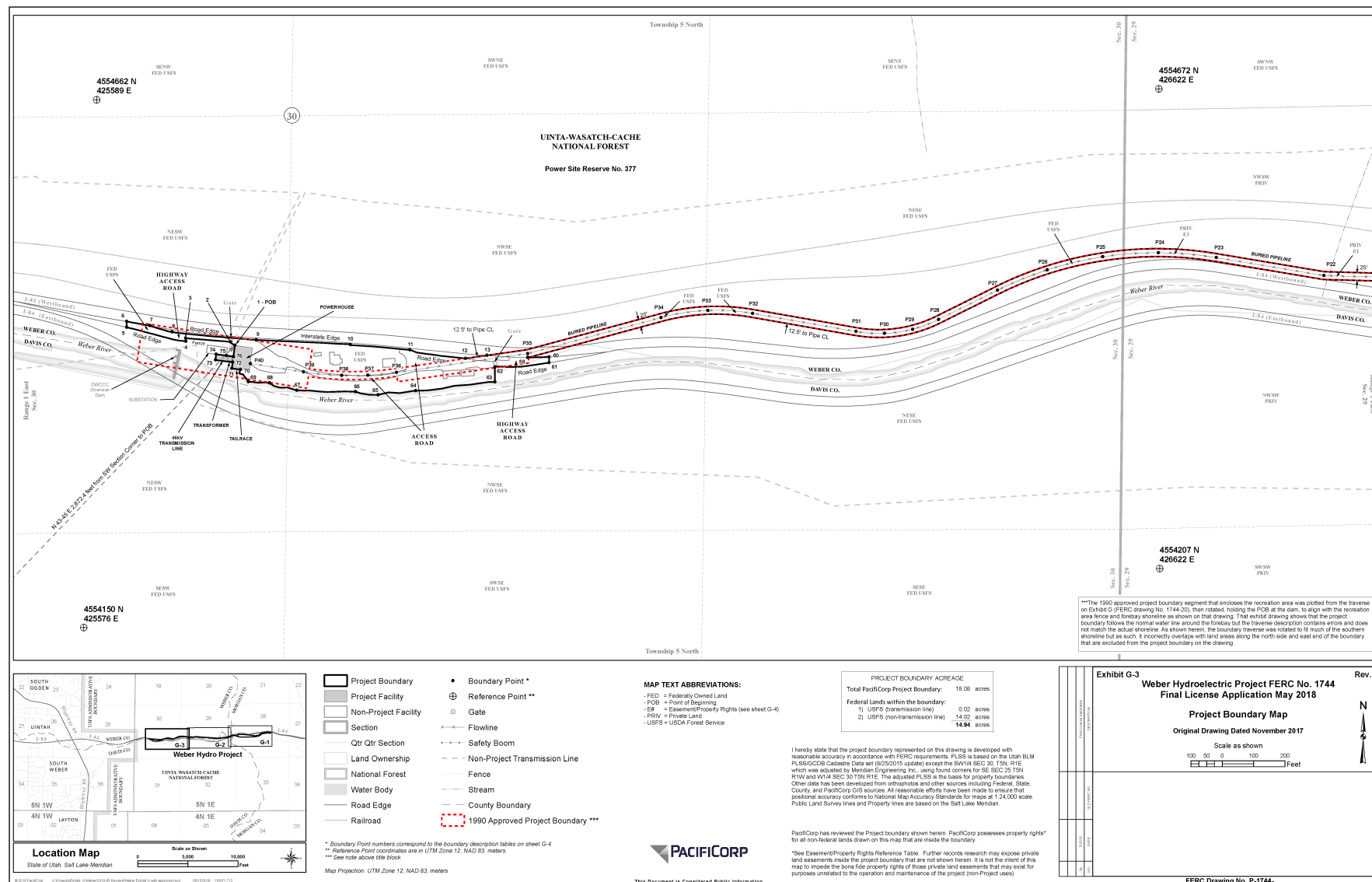


Figure 1c. Project Boundary Comparison Map/Western Part

Weber Hydroelectric Project (FERC Project No. 1744)
Final License Application – Exhibit G

The Project is located within the Uinta-Wasatch-Cache National Forest administrative boundary; however, the central portion of the Project in Section 29 T5N R1E SLM is located on privately owned land. For this area, the proposed Project Boundary maintains the same 25-foot width along the flowline (12.5 feet on each side of the center line of the flowline) as the existing boundary (see revised Exhibit sheet G-2).

West of the section line between Section 29 and 30 T5N R1E SLM, the flowline and powerhouse are located on federally owned land. Once the flowline crosses under I-84 the proposed Project Boundary expands to include the I-84 access ramp and the area between I-84, the Weber River, and the downstream side of the powerhouse. This part of the proposed Project Boundary has been widened to include access roads, buildings, and maintenance areas that are currently used by the Project.

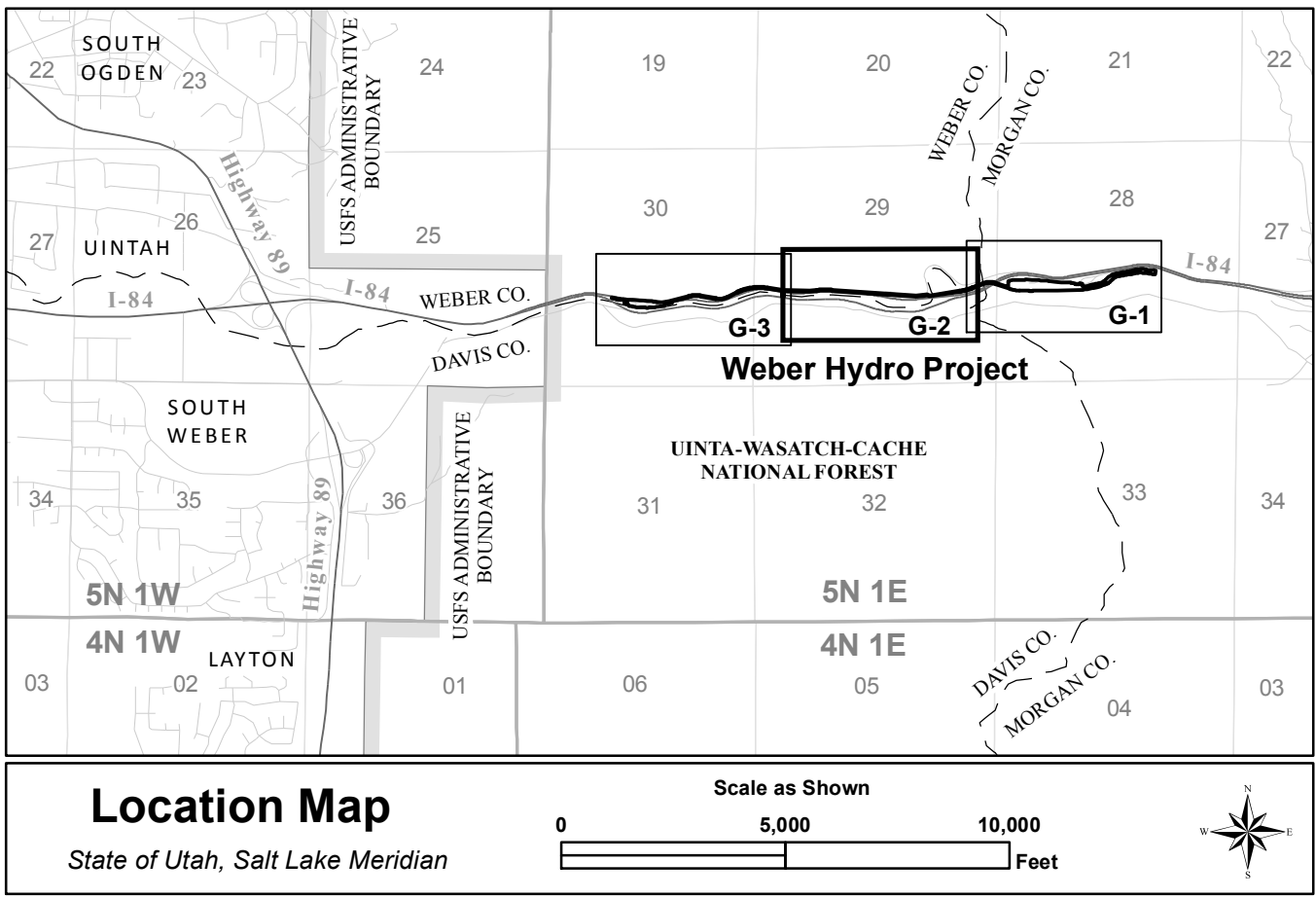
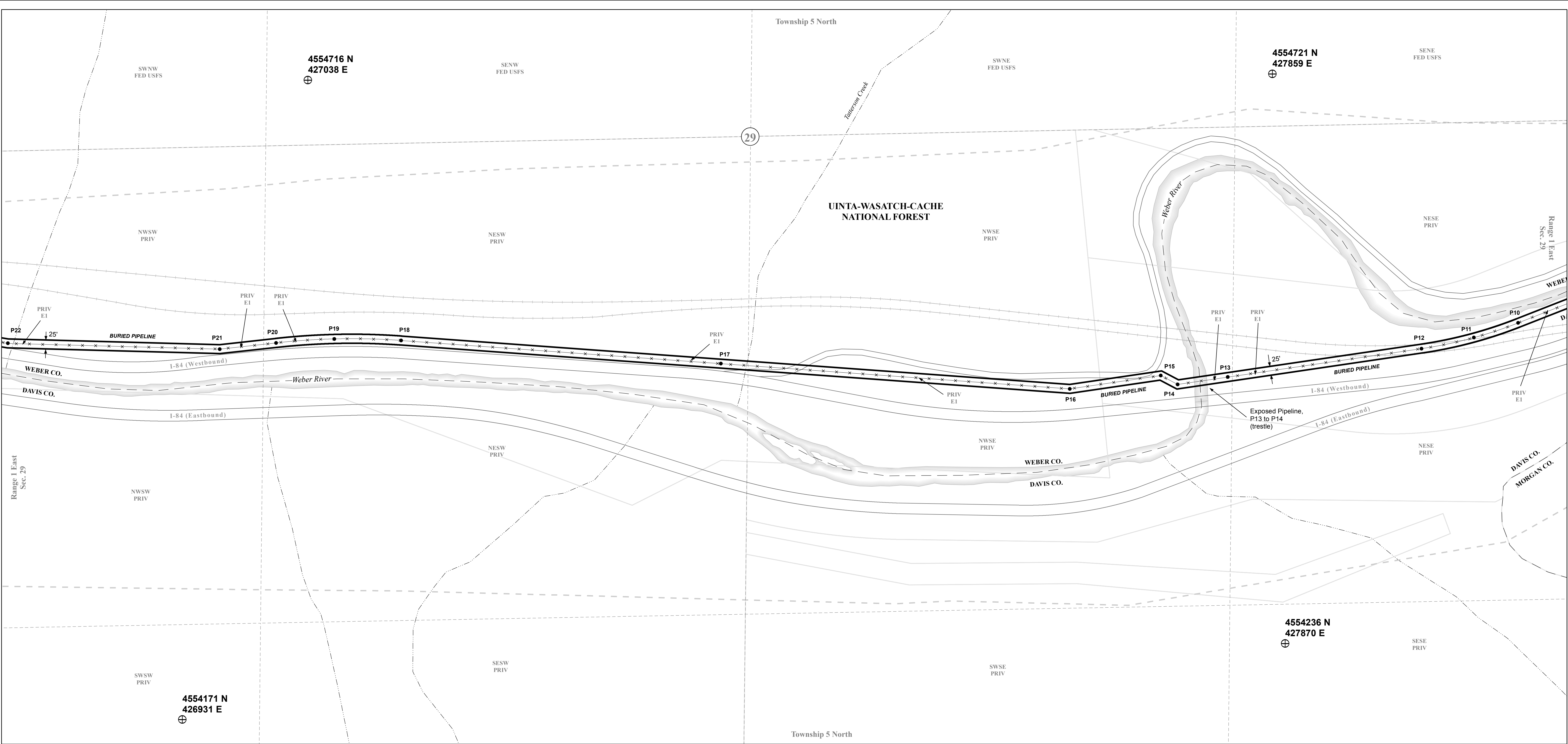
Downstream of the powerhouse, the proposed Project Boundary has been reduced to include only the small area occupied by the Project transmission line (excluding the substation) and the access road and I-84 access ramp. The changes around the powerhouse are intended to include only those areas that are needed for the Project rather than the arbitrary rectangular area that defines the existing boundary.

A Public Land Survey System (PLSS) description of lands of the United States located within the proposed Project Boundary and identified on these maps can be found in Table 3.

Table 3. Description of Federal Lands within the Project Boundary

Federal Lands not occupied by Transmission Line				
PLSS Township and Range, Salt Lake Meridian	PLSS Section	Subdivision Section	Acres	Agency Jurisdiction
T5N, R1E	28	Portions of the NW 1/4 of the SE 1/4	1.52	USFS
T5N, R1E	28	Portions of the NE 1/4 of the SW 1/4	3.69	USFS
T5N, R1E	28	Portions of the NW 1/4 of the SW 1/4	5.80	USFS
T5N, R1E	30	Portions of the NE 1/4 of the SE 1/4	0.79	USFS
T5N, R1E	30	Portions of the NW 1/4 of the SE 1/4	2.44	USFS
T5N, R1E	30	Portions of the NE 1/4 of the SW 1/4	0.68	USFS
Federal Lands occupied by Transmission Line				
T5N, R1E	30	Portions of the NE 1/4 of the SW 1/4	0.02	USFS
		Total Acreage	14.94	

ATTACHMENT 1: REVISED EXHIBIT G SHEETS



- Project Boundary

Project Facility

Non-Project Facility

Section

Qtr Qtr Section

Land Ownership

National Forest

Water Body

Road Edge

Railroad
- Boundary Point *

⊕

Reference Point **

■

Gate

—x—x—

Flowline

—+—+—

Safety Boom

— — —

Non-Project Transmission Line

.....

Fence

~~~~~

Stream

———

County Boundary

**MAP TEXT ABBREVIATIONS:**

- FED = Federally Owned Land
- POB = Point of Beginning
- E# = Easement/Property Rights (see sheet G-4)
- PRIV = Private Land
- USFS = USDA Forest Service



This Document is Considered Public Information.

| PROJECT BOUNDARY ACREAGE           |                    |
|------------------------------------|--------------------|
| Total PacifiCorp Project Boundary: | 18.08 acres        |
| Federal Lands within the boundary: |                    |
| 1) USFS (transmission line)        | 0.02 acres         |
| 2) USFS (non-transmission line)    | 14.92 acres        |
|                                    | <b>14.94 acres</b> |

I hereby state that the project boundary represented on this drawing is developed with reasonable accuracy in accordance with FERC requirements. PLSS is based on the Utah BLM PLSS/GCDB Cadastre Data set (8/25/2015 update) except the SW1/4 SEC 30, T5N, R1E which was adjusted by Meridian Engineering Inc., using found corners for SE SEC 25 T5N R1W and W1/4 SEC 30 T5N R1E. The adjusted PLSS is the basis for property boundaries. Other data has been developed from orthophotos and other sources including Federal, State, County, and PacifiCorp GIS sources. All reasonable efforts have been made to ensure that positional accuracy conforms to National Map Accuracy Standards for maps at 1:24,000 scale. Public Land Survey lines and Property lines are based on the Salt Lake Meridian.

PacifiCorp has reviewed the Project boundary shown herein. PacifiCorp possesses property rights\* for all non-federal lands drawn on this map that are inside the boundary.

\*See Easement/Property Rights Reference Table. Further records research may expose private land easements inside the project boundary that are not shown herein. It is not the intent of this map to impede the bona fide property rights of those private land easements that may exist for purposes unrelated to the operation and maintenance of the project (non-Project uses).

Final License Application

DESCRIPTION

OLD FERC NO.

DATE

NO.

Exhibit G-2

**Weber Hydroelectric Project FERC No. 1744**

**Final License Application May 2018**

**Project Boundary Map**

Original Drawing Dated November 2017

Scale as shown

100 50 0 100 200 Feet

N

Rev. 0a

FERC Drawing No. P-1744-\_\_\_\_\_



Project Boundary Table

| Point | Northing<br>(Meters) | Easting<br>(Meters) | Bearing    | Distance<br>(feet) | Remarks                                                                                                                                                                                                                     |
|-------|----------------------|---------------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | 4554424              | 425723              |            |                    | BEGINNING AT THE SW CORNER OF SEC 30 T5N R1E, AND BEARING N43-44-55E 2672.4 FEET (GIS CALCULATED) TO THE NW CORNER OF THE WEBER POWERHOUSE, THE POB                                                                         |
|       |                      |                     |            | 19                 | ALONG SUBSTATION FENCE                                                                                                                                                                                                      |
| 2     | 4554427              | 425719              |            |                    | BEND POINT ON SUBSTATION FENCE                                                                                                                                                                                              |
|       |                      |                     |            | 144                | ALONG SUBSTATION FENCE                                                                                                                                                                                                      |
| 3     | 4554430              | 425675              |            |                    | INTX OF SUBSTATION FENCE AND EDGE OF ACCESS ROAD                                                                                                                                                                            |
|       |                      |                     | S4-32-37E  | 10                 | ALONG SOUTH SIDE OF ACCESS ROAD                                                                                                                                                                                             |
| 4     | 4554427              | 425675              |            |                    | BEND POINT ON SOUTH SIDE OF ACCESS ROAD                                                                                                                                                                                     |
|       |                      |                     | N76-42-58W | 194                | ALONG SOUTH SIDE OF ACCESS ROAD                                                                                                                                                                                             |
| 5     | 4554441              | 425618              |            |                    | INTX W/ UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                                                                                  |
|       |                      |                     | N0-0-0E    | 18                 | ALONG UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                                                                                    |
| 6     | 4554447              | 425618              |            |                    | INTX W/ INTERSTATE 84, WEST BOUND                                                                                                                                                                                           |
|       |                      |                     | S80-1-57E  | 75                 | ALONG SOUTH SIDE OF INTERSTATE 84                                                                                                                                                                                           |
| 7     | 4554443              | 425640              |            |                    | INTX W/ NORTH SIDE OF ACCESS ROAD                                                                                                                                                                                           |
|       |                      |                     | S74-2-12E  | 73                 | ALONG NORTH SIDE OF ACCESS ROAD                                                                                                                                                                                             |
| 8     | 4554437              | 425662              |            |                    | BEND POINT ON NORTH SIDE OF ACCESS ROAD                                                                                                                                                                                     |
|       |                      |                     | S84-37-10E | 270                | ALONG NORTH SIDE OF ACCESS ROAD                                                                                                                                                                                             |
| 9     | 4554429              | 425744              |            |                    | INTX W/ INTERSTATE 84, WEST BOUND                                                                                                                                                                                           |
|       |                      |                     | S87-5-54E  | 300                | ALONG SOUTH SIDE OF INTERSTATE 84                                                                                                                                                                                           |
| 10    | 4554424              | 425835              |            |                    | BEND POINT ON INTERSTATE 84, WEST BOUND                                                                                                                                                                                     |
|       |                      |                     | S84-54-27E | 191                | ALONG SOUTH SIDE OF INTERSTATE 84                                                                                                                                                                                           |
| 11    | 4554419              | 425893              |            |                    | INTX W/ EDGE OF ACCESS ROAD                                                                                                                                                                                                 |
|       |                      |                     | S81-18-13E | 180                | ALONG EDGE OF ACCESS ROAD                                                                                                                                                                                                   |
| 12    | 4554411              | 425947              |            |                    | INTX W/ PIPELINE BUFFER (12.5' FROM PIPELINE C.L.)                                                                                                                                                                          |
|       |                      |                     | N81-51-33E | 69                 | ALONG PIPELINE BUFFER (12.5' FROM PIPELINE C.L.)                                                                                                                                                                            |
| 13    | 4554414              | 425968              |            |                    | INTX W/ INTERSTATE 84, WEST BOUND                                                                                                                                                                                           |
|       |                      |                     |            | 7843               | ALONG PIPELINE BUFFER (12.5' FROM PIPELINE C.L.)                                                                                                                                                                            |
| 14    | 4554516              | 428314              |            |                    | INTX W/ UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                                                                                  |
|       |                      |                     | N0-0-0E    | 126                | ALONG UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                                                                                    |
| 15    | 4554554              | 428314              |            |                    | INTX W/ RECREATION AREA FENCE                                                                                                                                                                                               |
|       |                      |                     | N11-10-23E | 10                 | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 16    | 4554557              | 428314              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | N73-13-39E | 45                 | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 17    | 4554561              | 428327              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | N81-38-10E | 100                | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 18    | 4554565              | 428357              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | S89-17-48E | 232                | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 19    | 4554564              | 428428              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | N63-53-23E | 18                 | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 20    | 4554567              | 428433              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | S85-35-3E  | 144                | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 21    | 4554563              | 428477              |            |                    | BEND POINT ON RECREATION AREA FENCE                                                                                                                                                                                         |
|       |                      |                     | S88-33-20E | 295                | ALONG RECREATION AREA FENCE                                                                                                                                                                                                 |
| 22    | 4554561              | 428567              |            |                    | INTX W/ RECREATION AREA ACCESS ROAD                                                                                                                                                                                         |
|       |                      |                     | S81-34-0E  | 219                | ALONG RECREATION AREA ACCESS ROAD                                                                                                                                                                                           |
| 23    | 4554551              | 428633              |            |                    | BEND POINT ON RECREATION AREA ACCESS ROAD                                                                                                                                                                                   |
|       |                      |                     | S86-55-15E | 343                | ALONG RECREATION AREA ACCESS ROAD                                                                                                                                                                                           |
| 24    | 4554546              | 428737              |            |                    | BEND POINT ON RECREATION AREA ACCESS ROAD                                                                                                                                                                                   |
|       |                      |                     | S76-41-17E | 167                | ALONG RECREATION AREA ACCESS ROAD                                                                                                                                                                                           |
| 25    | 4554534              | 428787              |            |                    | BEND POINT ON RECREATION AREA ACCESS ROAD                                                                                                                                                                                   |
|       |                      |                     | N89-8-55E  | 41                 | ALONG RECREATION AREA ACCESS ROAD                                                                                                                                                                                           |
| 26    | 4554534              | 428800              |            |                    | BEND POINT ON RECREATION AREA ACCESS ROAD                                                                                                                                                                                   |
|       |                      |                     | N23-53-13E | 26                 | ALONG RECREATION AREA ACCESS ROAD                                                                                                                                                                                           |
| 27    | 4554542              | 428803              |            |                    | INTX W/ REST AREA ACCESS ROAD                                                                                                                                                                                               |
|       |                      |                     | S79-56-10E | 44                 | ALONG EDGE OF REST AREA ACCESS ROAD                                                                                                                                                                                         |
| 28    | 4554539              | 428816              |            |                    | INTX W/ EDGE OF REST AREA ACCESS ROAD AND EAST EDGE OF RECREATION AREA ACCESS ROAD                                                                                                                                          |
|       |                      |                     | S0-0-0W    | 56                 | ALONG UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                                                                                    |
| 29    | 4554522              | 428816              |            |                    | INTX W/ WEBER FOREBAY SHORELINE (4797.88 US FT NAVD88); THENCE THE PROJECT BOUNDARY FOLLOWS THE NORMAL WATER SURFACE AT ELEV 4797.88 US FT NAVD88 AS APPROX. REPRESENTED BY THE FOLLOWING COURSES BETWEEN POINTS 29 AND 55: |
|       |                      |                     | N85-12-4E  | 128                |                                                                                                                                                                                                                             |
| 30    | 4554525              | 428855              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N76-49-24E | 312                |                                                                                                                                                                                                                             |
| 31    | 4554547              | 428948              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N57-2-50E  | 54                 |                                                                                                                                                                                                                             |
| 32    | 4554556              | 428961              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N71-13-41E | 44                 |                                                                                                                                                                                                                             |
| 33    | 4554560              | 428974              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N37-15-4E  | 74                 |                                                                                                                                                                                                                             |
| 34    | 4554578              | 428988              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N59-47-35E | 57                 |                                                                                                                                                                                                                             |
| 35    | 4554587              | 429003              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N49-25-56E | 83                 |                                                                                                                                                                                                                             |
| 36    | 4554604              | 429022              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N79-34-32E | 441                |                                                                                                                                                                                                                             |
| 37    | 4554628              | 429154              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N77-13-35E | 147                |                                                                                                                                                                                                                             |
| 38    | 4554638              | 429198              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N88-56-59E | 115                |                                                                                                                                                                                                                             |
| 39    | 4554638              | 429233              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | S79-16-31E | 69                 |                                                                                                                                                                                                                             |
| 40    | 4554635              | 429254              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | S87-21-10E | 103                |                                                                                                                                                                                                                             |
| 41    | 4554633              | 429285              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | S79-31-27E | 106                |                                                                                                                                                                                                                             |
| 42    | 4554627              | 429317              |            |                    | INTX W/ WEBER RIVER TO WEBER FOREBAY TRANSITION LOCATION                                                                                                                                                                    |
|       |                      |                     | S13-5-28W  | 85                 | ALONG WEBER RIVER TO WEBER FOREBAY TRANSITION LOCATION                                                                                                                                                                      |
| 43    | 4554602              | 429311              |            |                    | INTX W/ WEBER FOREBAY SHORELINE (4797.88 US FT NAVD88); CONTINUING ALONG THE NORMAL WATER SURFACE (POINTS 29 TO 55):                                                                                                        |
|       |                      |                     | N80-43-42W | 170                |                                                                                                                                                                                                                             |
| 44    | 4554610              | 429260              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | N85-9-46W  | 156                |                                                                                                                                                                                                                             |
| 45    | 4554614              | 429213              |            |                    |                                                                                                                                                                                                                             |
|       |                      |                     | S84-58-10W | 124                |                                                                                                                                                                                                                             |

Project Boundary Table (continued)

| Point | Northing<br>(Meters) | Easting<br>(Meters) | Bearing    | Distance<br>(feet) | Remarks                                                                                                                                                               |
|-------|----------------------|---------------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 46    | 4554611              | 429175              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S73-27-35W | 80                 |                                                                                                                                                                       |
| 47    | 4554604              | 429152              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S81-11-6W  | 146                |                                                                                                                                                                       |
| 48    | 4554597              | 429108              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S78-11-3W  | 217                |                                                                                                                                                                       |
| 49    | 4554584              | 429043              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S54-43-17W | 72                 |                                                                                                                                                                       |
| 50    | 4554571              | 429025              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S45-45-46W | 114                |                                                                                                                                                                       |
| 51    | 4554547              | 429000              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S61-1-16W  | 95                 |                                                                                                                                                                       |
| 52    | 4554533              | 428975              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S72-34-1W  | 208                |                                                                                                                                                                       |
| 53    | 4554514              | 428914              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S77-39-53W | 158                |                                                                                                                                                                       |
| 54    | 4554504              | 428867              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S80-18-2W  | 167                |                                                                                                                                                                       |
| 55    | 4554495              | 428817              |            |                    | INTX W/ CONCRETE RETAINING WALL                                                                                                                                       |
|       |                      |                     | S89-11-24W | 549                | ALONG CONCRETE RETAINING WALL                                                                                                                                         |
| 56    | 4554493              | 428850              |            |                    | BEND POINT ALONG CONCRETE RETAINING WALL                                                                                                                              |
|       |                      |                     | S89-12-0W  | 565                | ALONG CONCRETE RETAINING WALL                                                                                                                                         |
| 57    | 4554490              | 428478              |            |                    | INTX W/ INTAKE HOUSE AND CHAMBER AT DIVERSION DAM                                                                                                                     |
|       |                      |                     |            | 88                 | ALONG FACILITIES AT DIVERSION DAM                                                                                                                                     |
| 58    | 4554494              | 428457              |            |                    | INTX W/ PIPELINE BUFFER (12.5' FROM PIPELINE C.L. - SEE PIPELINE CENTER LINE TABLE)                                                                                   |
|       |                      |                     |            | 8188               | ALONG PIPELINE BUFFER (12.5' FROM PIPELINE C.L.)                                                                                                                      |
| 59    | 4554412              | 426008              |            |                    | INTX W/ SOUTH SIDE OF INTERSTATE 84, WEST BOUND                                                                                                                       |
|       |                      |                     | N88-21-15E | 68                 | ALONG SOUTH SIDE OF INTERSTATE 84                                                                                                                                     |
| 60    | 4554412              | 426029              |            |                    | INTX W/ UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                            |
|       |                      |                     | S0-0-0W    | 18                 | ALONG UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                              |
| 61    | 4554407              | 426029              |            |                    | INTX W/ SOUTH SIDE OF ACCESS ROAD                                                                                                                                     |
|       |                      |                     | S85-14-27W | 174                | ALONG SOUTH SIDE OF ACCESS ROAD                                                                                                                                       |
| 62    | 4554402              | 425976              |            |                    | INTX W/ UNMARKED NORTH/SOUTH BOUNDARY LINE SOUTH OF GATE                                                                                                              |
|       |                      |                     | S0-0-0W    | 47                 | ALONG UNMARKED NORTH/SOUTH BOUNDARY LINE                                                                                                                              |
| 63    | 4554388              | 425976              |            |                    | INTX W/ NORTH SHORELINE OF WEBER RIVER; THENCE ALONG THE NORTH SHORELINE OF THE WEBER RIVER AS APPROX. REPRESENTED BY THE FOLLOWING COURSES BETWEEN POINTS 63 AND 70: |
|       |                      |                     | S83-42-1W  | 254                |                                                                                                                                                                       |
| 64    | 4554380              | 425899              |            |                    |                                                                                                                                                                       |
|       |                      |                     | S83-44-30W | 120                |                                                                                                                                                                       |
| 65    | 4554376              | 425862              |            |                    |                                                                                                                                                                       |
|       |                      |                     | N82-9-23W  | 73                 |                                                                                                                                                                       |
| 66    | 4554379              | 425840              |            |                    |                                                                                                                                                                       |
|       |                      |                     | N88-37-39W | 187                |                                                                                                                                                                       |
| 67    | 4554380              | 425783              |            |                    |                                                                                                                                                                       |
|       |                      |                     | N74-48-43W | 90                 |                                                                                                                                                                       |
| 68    | 4554387              | 425757              |            |                    |                                                                                                                                                                       |
|       |                      |                     | N86-47-2W  | 68                 |                                                                                                                                                                       |
| 69    | 4554388              | 425736              |            |                    |                                                                                                                                                                       |
|       |                      |                     | N33-3-16W  | 46                 |                                                                                                                                                                       |
| 70    | 4554400              | 425728              |            |                    | INTX W/ WEBER POWERHOUSE WALL                                                                                                                                         |
|       |                      |                     | N81-40-32W | 28                 | ALONG WEBER POWERHOUSE WALL                                                                                                                                           |
| 71    | 4554401              | 425720              |            |                    | BEND POINT ON WEBER POWERHOUSE WALL                                                                                                                                   |
|       |                      |                     | N7-52-52E  | 20                 | ALONG WEBER POWERHOUSE WALL                                                                                                                                           |
| 72    | 4554407              | 425721              |            |                    | INTX W/ TRANSMISSION LINE BOUNDARY                                                                                                                                    |
|       |                      |                     | N82-50-17W | 56                 | ALONG TRANSMISSION LINE BOUNDARY (9 FOOT OFFSET FROM C.L. OF TRANSMISSION LINE)                                                                                       |
| 73    | 4554409              | 425704              |            |                    | BEND POINT ON TRANSMISSION LINE BOUNDARY                                                                                                                              |
|       |                      |                     | N7-9-45E   | 18                 | ALONG TRANSMISSION LINE BOUNDARY (9 FOOT OFFSET FROM C.L. OF TRANSMISSION LINE)                                                                                       |
| 74    | 4554415              | 425705              |            |                    | INTX W/ WEBER SUBSTATION BOUNDARY                                                                                                                                     |
|       |                      |                     | S82-50-11E | 33                 | ALONG WEBER SUBSTATION BOUNDARY                                                                                                                                       |
| 75    | 4554414              | 425715              |            |                    | INTX W/ TRANSMISSION LINE BOUNDARY                                                                                                                                    |
|       |                      |                     | S82-50-12E | 23                 | ALONG TRANSMISSION LINE BOUNDARY                                                                                                                                      |
| 76    | 4554413              | 425722              |            |                    | INTX W/ WEBER POWERHOUSE WALL                                                                                                                                         |
|       |                      |                     | N7-52-56E  | 36                 | ALONG WEBER POWERHOUSE WALL                                                                                                                                           |
| 1     | 4554424              | 425723              |            |                    | NW CORNER OF THE WEBER POWERHOUSE, THE POB                                                                                                                            |

Pipeline Center Line Table

| Point | Northing<br>(Meters) | Easting<br>(Meters) | Bearing    | Distance<br>(feet) | Remarks                                   |
|-------|----------------------|---------------------|------------|--------------------|-------------------------------------------|
| P1    | 4554497              | 428471              |            |                    | POINT OF DIVERSION                        |
|       |                      |                     | S89-51-28W | 174                | ALONG EXPOSED PIPE                        |
| P2    | 4554497              | 428418              |            |                    | INTX W/ BURIED PIPE                       |
|       |                      |                     | S89-51-27W | 84                 | ALONG BURIED PIPE, THE FOLLOWING COURSES: |
| P3    | 4554497              | 428392              |            |                    |                                           |
|       |                      |                     | N85-20-40W | 120                |                                           |
| P4    | 4554500              | 428356              |            |                    |                                           |
|       |                      |                     | N76-5-40W  | 111                |                                           |
| P5    | 4554508              | 428323              |            |                    |                                           |
|       |                      |                     | N71-38-32W | 320                |                                           |
| P6    | 4554539              | 428231              |            |                    |                                           |
|       |                      |                     | N77-58-3W  | 97                 |                                           |
| P7    | 4554545              | 428202              |            |                    |                                           |
|       |                      |                     | S87-53-37W | 120                |                                           |
| P8    | 4554544              | 428165              |            |                    |                                           |
|       |                      |                     | S74-19-38W | 88                 |                                           |
| P9    | 4554537              | 428139              |            |                    |                                           |
|       |                      |                     | S68-34-28W | 250                |                                           |
| P10   | 4554509              | 428068              |            |                    |                                           |
|       |                      |                     | S71-37-17W | 130                |                                           |
| P11   | 4554496              | 428030              |            |                    |                                           |
|       |                      |                     | S78-9-17W  | 149                |                                           |
| P12   | 4554487              | 427986              |            |                    |                                           |
|       |                      |                     | S81-38-28W | 547                |                                           |
| P13   | 4554463              | 427821              |            |                    | INTX W/ EXPOSED PIPE                      |
|       |                      |                     | S81-38-28W | 141                | ALONG EXPOSED PIPE (TRESTLE)              |
| P14   | 4554456              | 427778              |            |                    | INTX W/ BURIED PIPE                       |
|       |                      |                     | N62-21-30W | 53                 | ALONG BURIED PIPE, THE FOLLOWING COURSES: |
| P15   | 4554464              | 427764              |            |                    |                                           |
|       |                      |                     | S81-38-28W | 257                |                                           |
| P16   | 4554453              | 427686              |            |                    |                                           |
|       |                      |                     | N85-51-32W | 977                |                                           |
| P17   | 4554474              | 427389              |            |                    |                                           |
|       |                      |                     | N85-51-32W | 896                |                                           |
| P18   | 4554494              | 427117              |            |                    |                                           |
|       |                      |                     | N88-39-46W | 187                |                                           |
| P19   | 4554495              | 427060              |            |                    |                                           |
|       |                      |                     | S86-5-14W  | 163                |                                           |
| P20   | 4554492              | 427011              |            |                    |                                           |
|       |                      |                     | S83-38-27W | 158                |                                           |
| P21   | 4554486              | 426963              |            |                    |                                           |
|       |                      |                     | N88-26-32W | 592                |                                           |
| P22   | 4554491              | 426782              |            |                    |                                           |
|       |                      |                     | N80-31-32W | 348                |                                           |
| P23   | 4554509              | 426677              |            |                    |                                           |
|       |                      |                     | N85-9-17W  | 185                |                                           |
| P24   | 4554514              | 426621              |            |                    |                                           |
|       |                      |                     | S85-45-13W | 178                |                                           |
| P25   | 4554510              | 426567              |            |                    |                                           |
|       |                      |                     | S76-44-4W  | 182                |                                           |
| P26   | 4554497              | 426513              |            |                    |                                           |
|       |                      |                     | S67-52-32W | 172                |                                           |
| P27   | 4554477              | 426464              |            |                    |                                           |
|       |                      |                     | S63-34-28W | 210                |                                           |
| P28   | 4554449              | 426407              |            |                    |                                           |
|       |                      |                     | S69-30-53W | 88                 |                                           |
| P29   | 4554439              | 426382              |            |                    |                                           |
|       |                      |                     | S81-30-36W | 90                 |                                           |
| P30   | 4554435              | 426355              |            |                    |                                           |
|       |                      |                     | N86-15-19W | 92                 |                                           |
| P31   | 4554437              | 426327              |            |                    |                                           |
|       |                      |                     | N80-4-32W  | 335                |                                           |
| P32   | 4554455              | 426226              |            |                    |                                           |
|       |                      |                     | N86-9-17W  | 143                |                                           |
| P33   | 4554458              | 426183              |            |                    |                                           |
|       |                      |                     | S81-19-43W | 151                |                                           |
| P34   | 4554451              | 426137              |            |                    |                                           |
|       |                      |                     | S74-53-28W | 440                |                                           |
| P35   | 4554416              | 426008              |            |                    |                                           |
|       |                      |                     | S81-51-28W | 424                |                                           |
| P36   | 4554397              | 425880              |            |                    |                                           |
|       |                      |                     | S84-27-31W | 91                 |                                           |
| P37   | 4554395              | 425852              |            |                    |                                           |
|       |                      |                     | S89-26-30W | 84                 |                                           |
| P38   | 4554394              | 425827              |            |                    |                                           |
|       |                      |                     | N84-41-33W | 122                |                                           |
| P39   | 4554398              | 425790              |            |                    |                                           |
|       |                      |                     | N81-7-6W   | 171                |                                           |
| P40   | 4554406              | 425738              |            |                    | EAST WALL OF POWERHOUSE                   |

Notes:

- 1) Information in the table is based on GIS derived coordinates and measurements, and is not intended to represent station points or measurements established by ground surveys.
- 2) Coordinates and Bearings are in UTM Zone 12, NAD 83, meters.
- 3) Distances are in U.S. survey feet (Grid).
- 3) Project is located in the state of Utah, Salt Lake Meridian.

Easement/Property Rights Reference Table

| Easement/<br>Property<br>Rights No. | Interest Type                                                                                                                                                                                                                                |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E1                                  | Agreement No. 316 between Union Pacific Railroad Company and Utah Light & Railway Co. dated August 1, 1908 – grants rights to construct and maintain the hydroelectric project and is binding to the successors and assigns of both parties. |

I hereby state that the project boundary represented on this drawing is developed with reasonable accuracy in accordance with FERC requirements. PLSS is based on the Utah BLM PLSS/GCDB Cadastre Data set (8/25/2015 update) except the SW1/4 SEC 30, T5N, R1E which was adjusted by Meridian Engineering Inc., using found corners for SE SEC 25 T5N R1W and W1/4 SEC 30 T5N R1E. The adjusted PLSS is the basis for property boundaries. Other data has been developed from orthophotos and other sources including Federal, State, County, and PacifiCorp GIS sources. All reasonable efforts have been made to ensure that positional accuracy conforms to National Map Accuracy Standards for maps at 1:24,000 scale. Public Land Survey lines and Property lines are based on the Salt Lake Meridian.

PacifiCorp has reviewed the Project boundary shown herein. PacifiCorp possesses property rights\* for all non-f

**WEBER HYDROELECTRIC PROJECT  
(FERC PROJECT NO. 1744)**

**FINAL APPLICATION FOR NEW LICENSE  
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

**EXHIBIT H**

**DESCRIPTION OF PROJECT MANAGEMENT AND NEED FOR PROJECT POWER**



**MAY 2018**

**FINAL APPLICATION FOR NEW LICENSE  
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

**WEBER HYDROELECTRIC PROJECT  
(FERC PROJECT NO. 1744)**

**PACIFICORP**

**EXHIBIT H  
DESCRIPTION OF PROJECT MANAGEMENT AND NEED FOR PROJECT POWER**

**TABLE OF CONTENTS**

|       |                                                                                                                                                        |   |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1.0   | INTRODUCTION.....                                                                                                                                      | 1 |
| 2.0   | INFORMATION TO BE SUPPLIED BY ALL APPLICANTS .....                                                                                                     | 2 |
| 2.1   | PLANS AND ABILITY OF THE APPLICANT TO OPERATE AND<br>MAINTAIN THE PROJECT § 5.18 (C)(1)(I)(A).....                                                     | 2 |
| 2.1.1 | Plans to Increase Capacity or Generation § 5.18 (c)(1)(i)(A)(1).....                                                                                   | 3 |
| 2.1.2 | Plans to Coordinate the Operation of the Project with Other Water Resource<br>Projects § 5.18 (c)(1)(i)(A)(2) .....                                    | 3 |
| 2.1.3 | Plans to Coordinate the Operation of the Project with Other Electrical<br>Systems § 5.18(c)(1)(i)(A)(3).....                                           | 3 |
| 2.2   | NEED FOR THE ELECTRICITY GENERATED BY THE PROJECT § 5.18<br>(C)(1)(I)(B) .....                                                                         | 4 |
| 2.2.1 | The Reasonable Costs and Availability of Alternative Sources of Power §<br>5.18 (c)(1)(i)(B)(1) .....                                                  | 5 |
| 2.2.2 | Increase in Costs if the Licensee is not Granted a License § 5.18<br>(c)(1)(i)(B)(2) .....                                                             | 5 |
| 2.2.3 | Effects of Alternative Sources of Power § 5.18 (c)(1)(i)(B)(3) .....                                                                                   | 5 |
| 2.3   | NEED, REASONABLE COST AND AVAILABILITY OF ALTERNATIVE<br>SOURCES OF POWER § 5.18 (C)(1)(I)(C) .....                                                    | 7 |
| 2.4   | EFFECT OF POWER ON APPLICANT’S INDUSTRIAL FACILITY § 5.18<br>(C)(1)(I)(D) .....                                                                        | 7 |
| 2.5   | NEED OF THE TRIBE FOR ELECTRICITY § 5.18 (C)(1)(I)(E) .....                                                                                            | 8 |
| 2.6   | IMPACTS ON THE OPERATIONS AND PLANNING OF THE LICENSEE’S<br>TRANSMISSION SYSTEM OF RECEIVING OR NOT RECEIVING THE<br>LICENSE § 5.18 (C)(1)(I)(F) ..... | 8 |
| 2.7   | STATEMENT OF NEED FOR MODIFICATIONS TO EXISTING PROJECT<br>FACILITIES OR OPERATIONS § 5.18 (C)(1)(I)(G).....                                           | 8 |
| 2.7.1 | Proposed Project Operation.....                                                                                                                        | 8 |

## TABLE OF CONTENTS (CONT'D)

|       |                                                                                                                      |    |
|-------|----------------------------------------------------------------------------------------------------------------------|----|
| 2.8   | CONSISTENCY WITH COMPREHENSIVE PLANS § 5.18 (C)(1)(I)(H).....                                                        | 9  |
| 2.8.1 | Overview .....                                                                                                       | 9  |
| 2.8.2 | FERC-Approved State of Utah and Federal Comprehensive Plans .....                                                    | 9  |
| 2.9   | FINANCIAL AND PERSONNEL RESOURCES § 5.18 (C)(1)(I)(I).....                                                           | 13 |
| 2.10  | NOTIFICATION OF AFFECTED LANDOWNERS § 5.18 (C)(1)(I)(J).....                                                         | 14 |
| 2.11  | APPLICANT'S ELECTRICITY CONSUMPTION EFFICIENCY<br>IMPROVEMENT PROGRAM § 5.18 (C)(1)(I)(K)(1).....                    | 14 |
| 2.12  | INDIAN TRIBES AFFECTED BY THE PROJECT § 5.18 (C)(1)(I)(L).....                                                       | 14 |
| 3.0   | INFORMATION TO BE PROVIDED BY AN APPLICANT WHO IS AN<br>EXISTING LICENSEE .....                                      | 15 |
| 3.1   | MEASURES PLANNED TO INSURE SAFE MANAGEMENT, OPERATION<br>AND MAINTENANCE OF THE PROJECT § 5.18 (C)(1)(II)(B) .....   | 15 |
| 3.2   | CURRENT OPERATION OF THE PROJECT § 5.18 (C)(1)(II)(C) .....                                                          | 15 |
| 3.3   | PROJECT HISTORY § 5.18 (C)(1)(II)(D) .....                                                                           | 15 |
| 3.4   | LOST GENERATION DUE TO UNSCHEDULED OUTAGES § 5.18<br>(C)(1)(II)(E) .....                                             | 15 |
| 3.5   | LICENSEE'S RECORD OF COMPLIANCE § 5.18 (C)(1)(II)(F).....                                                            | 16 |
| 3.6   | ACTIONS AFFECTING THE PUBLIC § 5.18 (C)(1)(II)(G) .....                                                              | 17 |
| 3.7   | OWNERSHIP AND OPERATING EXPENSES THAT WOULD BE<br>REDUCED IF THE LICENSE WERE TRANSFERRED § 5.18 (C)(1)(II)(H) ..... | 17 |
| 3.8   | ANNUAL FEES FOR USE OF FEDERAL OR NATIVE AMERICAN LANDS<br>§ 5.18 (C)(1)(II)(I).....                                 | 17 |

## LIST OF TABLES

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| Table 1. Utah Hydroelectric Projects Owned by PacifiCorp .....              | 3  |
| Table 2. Lost Generation and Explanation for Outages for Last 5 Years ..... | 16 |
| Table 3. Annual Fees Paid Under Part I of the Federal Power Act.....        | 17 |

**FINAL APPLICATION FOR NEW LICENSE  
FOR MAJOR CONSTRUCTED PROJECT LESS THAN 5MW**

**WEBER HYDROELECTRIC PROJECT  
(FERC PROJECT NO. 1744)**

**PACIFICORP**

**EXHIBIT H § 5.18 (C)  
DESCRIPTION OF PROJECT MANAGEMENT AND NEED FOR PROJECT POWER**

**1.0 INTRODUCTION**

The Weber Hydroelectric Project (Project) is an existing, 3.85 megawatt (MW) generating facility owned and operated by PacifiCorp, and licensed by the Federal Energy Regulatory Commission (FERC Project No. 1744). The 18.8-acre Project is located in Weber, Davis, and Morgan counties, Utah, on the Weber River, approximately nine miles southeast of the City of Ogden, Utah. The powerhouse is located approximately 0.6 miles upstream of the mouth of Weber Canyon, and the diversion is located approximately 2.5 miles upstream of the canyon mouth. The plant facilities consist of the powerhouse, and several storage garages and former operator's cottages. Project works include a single 3,850 kW unit generator with a horizontal reaction turbine, a concrete dam, intake and spill gates, a 1.7-mile flowline, a historic fish passage structure (referred to as the 'ice chute' as it is unusable for fish passage but used to move ice past the spill gates), a day-use recreation site, a powerhouse, and a 77-foot 46 kV electrical transmission line which carries electricity from the powerhouse to the adjacent (non-Project) PacifiCorp dba Rocky Mountain Power substation.

The current (1990 license) Exhibit G does not include several Project features, including the storage areas around the powerhouse and the Weber Recreation Site, but does include several non-Project features, such as a portion of the I-84 freeway and a downstream irrigation diversion; the proposed Exhibit G addresses those issues. The Weber Hydroelectric Project operates as a run-of-river facility controlled by water releases from upstream and unrelated non-FERC licensed U.S. Bureau of Reclamation (BOR) and irrigation storage facilities including Echo, Rockport, Lost Creek, and East Canyon Reservoirs, and inflows from tributaries of the Weber River basin.

## **2.0 INFORMATION TO BE SUPPLIED BY ALL APPLICANTS**

### **2.1 PLANS AND ABILITY OF THE APPLICANT TO OPERATE AND MAINTAIN THE PROJECT § 5.18 (C)(1)(I)(A)**

PacifiCorp, a wholly-owned subsidiary of Berkshire Hathaway Energy Company (BHE), is a United States-regulated electric utility company headquartered in Oregon that serves 1.9 million retail electric customers in portions of Utah, Oregon, Wyoming, Washington, Idaho and California. PacifiCorp is principally engaged in the business of generating, transmitting, distributing and selling electricity. PacifiCorp's combined service territory covers approximately 143,000 square miles and includes diverse regional economies across six states. No single segment of the economy dominates the service territory, which helps mitigate PacifiCorp's exposure to economic fluctuations. In the western portion of the service territory, consisting of Oregon, southern Washington and northern California, the principal industries are agriculture, manufacturing, forest products, food processing, technology, government and primary metals. In the eastern portion of the service territory, consisting of Utah, Idaho, and Wyoming, the principal industries are agriculture, manufacturing, energy generation and mining, technology, and government industries. In addition to retail sales, PacifiCorp buys and sells electricity on the wholesale market with other utilities, energy marketing companies, financial institutions and other market participants to balance and optimize the economic benefits of electricity generation, retail customer loads and existing wholesale transactions.

PacifiCorp's operations are conducted under numerous franchise agreements, certificates, permits and licenses obtained from federal, state and local authorities. The average term of the franchise agreements is approximately 27 years, although their terms range from five years to indefinite. Several of these franchise agreements allow the municipality the right to seek amendment to the franchise agreement at a specified time during the term. PacifiCorp generally has an exclusive right to serve electric customers within its service territories and, in turn, has an obligation to provide electric service to those customers. In return, the state utility commissions have established rates on a cost-of-service basis, which are designed to allow PacifiCorp an opportunity to recover its costs of providing services and to earn a reasonable return on its investments.

PacifiCorp was initially incorporated in 1910 under the laws of the state of Maine under the name Pacific Power & Light Company. In 1984, Pacific Power & Light changed its name to PacifiCorp. In 1989, it merged with Utah Power and Light Company, a Utah corporation, in a transaction wherein both corporations merged into a newly formed Oregon corporation. The resulting Oregon corporation was re-named PacifiCorp, which is the operating entity today. PacifiCorp delivers electricity to customers in Utah, Wyoming and Idaho under the trade name Rocky Mountain Power and to customers in Oregon, Washington and California under the trade name Pacific Power.

PacifiCorp and its antecedent business entities have furnished electric service within Utah for over 100 years. Since the development of the Weber hydroelectric project in 1909-1910,

PacifiCorp has modified and upgraded Project facilities and control equipment to provide reliable, efficient electricity supply for their customers.

### **2.1.1 Plans to Increase Capacity or Generation § 5.18 (c)(1)(i)(A)(1)**

PacifiCorp has no plans to increase the capacity or generation of the Project.

### **2.1.2 Plans to Coordinate the Operation of the Project with Other Water Resource Projects § 5.18 (c)(1)(i)(A)(2)**

Although PacifiCorp owns and operates multiple hydroelectric projects in Utah (see Table 1) and Idaho, including the Weber Project, there are no other PacifiCorp or FERC projects located on the Weber River. All other Weber River diversions are owned and operated by the BOR, Weber Basin Water Conservancy District, or irrigation diversions such as the Davis and Weber Counties Canal Company (DWCCC) structure located immediately downstream of the Weber powerhouse. Although the Weber River flow volume is in large part determined by the status of the upstream BOR storage projects on the mainstem Weber River and its' tributaries (e.g., Echo, Rockport, East Canyon, etc.) and the associated trans-basin diversion that takes water from the Weber River and delivers it to the Provo River system, the Weber Project is operated independently from all the other diversions on the Weber River and its' tributaries in that there is no scheduling or coordination of flows. Weber generates with the water that is delivered in the system, minus the required Project minimum stream flows.

**Table 1. Utah Hydroelectric Projects Owned by PacifiCorp**

| <b>Project Name</b>                       | <b>FERC Status</b>                  | <b>Name of Waterway</b> | <b>Type of Operation and Interdependency status</b> |
|-------------------------------------------|-------------------------------------|-------------------------|-----------------------------------------------------|
| Granite                                   | Exempt<br>(FERC Project No. 14293)  | Big Cottonwood Creek    | Conduit exemption<br>Run- of-river; Independent     |
| Santa Clara<br>(Veyo, Sand Cove, Gunlock) | Exempt<br>(FERC Project No. 9281)   | Santa Clara River       | Conduit exemption<br>Run-of-river; Independent      |
| Cutler                                    | Licensed<br>(FERC Project No. 2420) | Bear River              | Run-of-river; Independent                           |
| Weber                                     | Licensed<br>(FERC Project No. 1744) | Weber River             | Run-of-river; Independent                           |
| Pioneer                                   | Licensed<br>(FERC Project No. 2722) | Ogden River             | Conduit Exemption<br>Run-of-river; Independent      |
| Stairs                                    | Licensed<br>(FERC Project No. 597)  | Big Cottonwood Creek    | Run-of-river; Independent                           |
| none                                      | Non-Jurisdictional                  | n/a                     | n/a                                                 |

### **2.1.3 Plans to Coordinate the Operation of the Project with Other Electrical Systems § 5.18(c)(1)(i)(A)(3)**

PacifiCorp operates and maintains the Project in accordance with guidelines established by both the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Council (NERC). The Project resides within the PacifiCorp East Balancing Authority Area.

PacifiCorp and the California Independent System Operator (ISO) launched the Energy Imbalance Market (EIM) on November 1, 2014. The EIM is a voluntary market and the first western energy market outside of California, including six states upon launch: California, Idaho, Oregon, Utah, Washington, and Wyoming. The EIM uses California ISO's advanced market systems that automatically balance supply and demand for electricity every 15 minutes, dispatching the least-cost resources every five minutes. Since the launch of the EIM, NV Energy joined the market December 1, 2015, adding Nevada to the EIM footprint. Puget Sound Energy and Arizona Public Service joined the EIM on October 1, 2016, Portland General Electric joined the EIM on October 1, 2017, and Idaho Power and Powerex both joined and began transactions on April 4, 2018. Additionally, other balancing authorities in the west have indicated interest or are pursuing participation. PacifiCorp continues to work with the California ISO, existing and prospective EIM entities, and stakeholders to enhance market functionality and support market growth with the addition of new EIM entities.

The California ISO is exploring expanding into a regional ISO. PacifiCorp is exploring joining the regional ISO and becoming a full participating transmission owner or potentially facilitating greater coordination with a regional ISO. This effort is aimed at reducing costs for consumers, enhancing coordination and reliability of western electric networks, facilitating the integration of renewable resources, reducing emissions, and enhancing regional transmission planning and expansion.

## **2.2 NEED FOR THE ELECTRICITY GENERATED BY THE PROJECT § 5.18 (C)(1)(I)(B)**

PacifiCorp serves 1.9 million retail customers, representing residential, commercial and industrial sectors, including 1,133,000 in Utah, Idaho, and Wyoming as PacifiCorp dba Rocky Mountain Power, and an additional 786,000 in Washington, Oregon, and California as PacifiCorp dba Pacific Power. In 2017, the combined load requirements were approximately 60,000,000 MWh.

PacifiCorp is required to have resources available to continuously meet its customer needs. The percentage of PacifiCorp's energy supplied by energy source varies from year to year and is subject to numerous operational and economic factors such as planned and unplanned outages, fuel commodity prices, fuel transportation costs, weather, environmental considerations, transmission constraints, and wholesale market prices of electricity. PacifiCorp evaluates these factors continuously in order to facilitate economical dispatch of its generating facilities. When factors for one energy source are less favorable, PacifiCorp must place more reliance on other energy sources. For example, PacifiCorp can generate more electricity using its low cost hydroelectric and wind-powered generating facilities when factors associated with these facilities are favorable. When factors associated with hydroelectric and wind resources are less favorable, PacifiCorp increases its reliance on coal- and natural gas-fueled generation or purchased electricity.

In addition to meeting its customers' energy needs, PacifiCorp is required to maintain operating reserves on its system to mitigate the impacts of unplanned outages or other disruption

in supply, and to meet intra-hour changes in load and resource balance. This operating reserve requirement is dispersed across PacifiCorp's generation portfolio on a least-cost basis based on the operating characteristics of the portfolio. Operating reserves may be held on hydroelectric, coal-fueled or natural gas-fueled resources. PacifiCorp manages certain risks relating to its supply of electricity and fuel requirements by entering into various contracts, which may be accounted for as derivatives and may include forwards, options, swaps and other agreements.

The 30-year (1986-2015) average annual generation of the Project is 16,926 MWh. All of the power produced by the Project is taken into PacifiCorp's electric system for consumption by the utility's customers. The Project's estimated historical annual cost to produce power is based on the BusBar cost of the Project. BusBar costs include annual depreciation, capital project financing based on the weighted average cost of capital, income and real estate taxes, and annual operations and maintenance costs. The average historical annual cost of power produced by the Project has been approximately \$1.6 million, or approximately \$43.45 per MWh, for the period 2012 to 2016. Based on an average annual consumption of 12,000 kWhs per household, the average power production from the Project is enough to satisfy the needs of approximately 2,920 homes.

#### **2.2.1      The Reasonable Costs and Availability of Alternative Sources of Power § 5.18 (c)(1)(i)(B)(1)**

PacifiCorp purchases and sells power in the short-term energy markets to balance the seasonal and daily variations in its customer loads and PacifiCorp's owned and contracted resources. PacifiCorp has also engaged in progressive conservation efforts to encourage its customers to be as efficient as possible with their electric consumption. If load growth cannot be met through cost-effective conservation, then new resource acquisitions, wholesale market purchases, or power supply contracts must be sought. If a new license is not granted for the Project, PacifiCorp would purchase an equivalent amount of replacement power from the wholesale power market.

#### **2.2.2      Increase in Costs if the Licensee is not Granted a License § 5.18 (c)(1)(i)(B)(2)**

In the event a new license is not granted for the Project, PacifiCorp would purchase an equivalent amount of replacement power from the wholesale power market. At a discount rate of 6.59% and based on the December 2016 Palo Verde flat-price official forward price curve<sup>1</sup>, the net present value of replacement power from 2020 through 2040 is \$20.7 million (i.e., \$57.1 million in 2016 dollars). Relying on the wholesale power market to replace the Project's generation exposes PacifiCorp to increased financial and supply risks.

#### **2.2.3      Effects of Alternative Sources of Power § 5.18 (c)(1)(i)(B)(3)**

Any viable new generating resource equal in output and comparable in operating characteristics to the Project would likely be more expensive in the long-term than continued

---

<sup>1</sup> The last year of the December 2016 official forward price curve is 2038. Projected costs for years beyond 2038 were inflated based on the 2037 inflation forecast costs.

operation of the existing Project. Therefore, under current laws and regulations, replacing the Project with a different generating resource and decommissioning the Project could increase the retail power costs in PacifiCorp's service territory.

#### **2.2.3.1 Effects on Licensee's Customers § 5.18 (c)(1)(i)(B)(3)(a)**

In the unlikely event the license were transferred to a different licensee, the Project's operating costs and power benefits would be transferred to the new licensee. This would result in a reallocation of the Project's net benefits from PacifiCorp's customers to the customers of the new licensee. However, there is no proposal from another potential licensee to license the Weber Project.

#### **2.2.3.2 Effect on Licensee's Operating and Load Characteristics § 5.18 (c)(1)(i)(B)(3)(b)**

Because the Project is a small contributor to PacifiCorp's overall power supply portfolio, there would be minimal impact to the region's overall load characteristics. However, the loss of any base load generation, such as the Project, could increase the number of transmission curtailments PacifiCorp may expect under certain system conditions, and result in the loss of the low-cost power to PacifiCorp's customers that Weber has historically generated.

#### **2.2.3.3 Effect on Communities Served by the Project § 5.18 (c)(1)(i)(B)(3)(c)**

PacifiCorp has provided a comprehensive set of Demand Side Management (DSM) programs to its customers since the 1970s. The programs are designed to reduce energy consumption and more effectively manage when energy is used, including management of seasonal peak loads. PacifiCorp offers services to customers such as energy engineering audits and information on how to improve the efficiency of their homes and businesses. To assist customers in investing in energy efficiency, PacifiCorp offers rebates or incentives encouraging the purchase and installation of high-efficiency equipment such as lighting, heating and cooling equipment, weatherization, motors, process equipment and systems, as well as incentives for energy project management, efficient building operations and efficient construction. Incentives are also paid to solicit participation in load management programs by residential, business and agricultural customers through programs such as PacifiCorp's residential and small commercial air conditioner load control program and irrigation equipment load control programs. Although subject to prudence reviews, state regulations allow for contemporaneous recovery of costs incurred for the DSM programs through state-specific energy efficiency surcharges to retail customers or for recovery of costs through rates.

During 2016, PacifiCorp spent \$141 million on these DSM programs, which resulted in an estimated 689,815 MWh of first-year energy savings and an estimated 290 MW of peak load management. In addition to these DSM programs, PacifiCorp has load curtailment contracts with a number of large industrial customers that deliver up to 315 MW of load reduction when needed, depending on the customers' actual loads. Recovery of the costs associated with the large industrial load management program are captured in the retail rate agreements with those customers approved by their respective state commissions or through PacifiCorp's general rate case process.

Without the above DSM program and alternatives provided by PacifiCorp to its customers, costs to consumers would likely be significantly higher and lack of conservation measures would put greater demand on the power resources thus causing the need for new development to make up for the higher demand.

See the discussion above in Sections 2.2.1, *The Reasonable Costs and Availability of Alternative Sources of Power*, and 2.2.2, *Increase in Costs if the Licensee is not Granted a License*, regarding the loss of the Project's generation.

### **2.3 NEED, REASONABLE COST AND AVAILABILITY OF ALTERNATIVE SOURCES OF POWER § 5.18 (C)(1)(I)(C)**

As PacifiCorp experiences the need for new generating resources, it will need to determine whether it is better to own a resource or purchase power from another party. While the ultimate decision will be made at the time resources are acquired, and will primarily be based on cost, there are other considerations that may be relevant.

With owned resources, PacifiCorp is in a better position to control costs, make life extension improvements, use the site for additional resources in the future, change fueling strategies or sources, efficiently address plant modifications that may be required as a result of changes in environmental or other laws and regulations, and utilize the plant at cost as long as it remains economic. In addition, by owning a plant, PacifiCorp can hedge itself from the uncertainty of the ability to perform consistent with the terms and conditions outlined in a power purchase agreement over time.

Depending on contract terms, purchasing power from a third party in a long-term contract may help mitigate and may avoid liabilities associated with closure of a plant. A long-term power purchase agreement relinquishes control of construction cost, schedule, ongoing costs and compliance to a third party, and exposes the buyer to default events and contract remedies that will not likely cover the potential negative impacts. Finally, credit rating agencies impute debt associated with long-term resource contracts that may result from a competitive procurement process, and such imputation may affect PacifiCorp's credit ratios and credit rating.

PacifiCorp's IRP considers an integrated portfolio analysis to value new resources. If an alternative to the Project's power and capacity is required, no single replacement resource would be assumed. Instead, integrated portfolio planning implies that all existing resources and loads would be evaluated together to find the best mix of resources based on least cost and lowest risk. To match the Project's average annual generation and capacity, the alternative cost estimate is based on the Project's projected annual output as if wholesale market purchases were utilized to replace Project MWs.

### **2.4 EFFECT OF POWER ON APPLICANT'S INDUSTRIAL FACILITY § 5.18 (C)(1)(I)(D)**

This section is not applicable as all power generated by the Weber Project moves via the Project transmission line to the adjacent non-Project substation and subsequently to the grid.

## **2.5 NEED OF THE TRIBE FOR ELECTRICITY § 5.18 (C)(1)(I)(E)**

This section is not applicable as PacifiCorp is not an Indian tribe.

## **2.6 IMPACTS ON THE OPERATIONS AND PLANNING OF THE LICENSEE'S TRANSMISSION SYSTEM OF RECEIVING OR NOT RECEIVING THE LICENSE § 5.18 (C)(1)(I)(F)**

The Project is connected to the PacifiCorp transmission system via a short lateral 77-foot 46 kV transmission line from the powerhouse to Weber Substation (not part of the Project), which integrates the generation resources with the local PacifiCorp transmission system via four 46kV transmission lines.

Reducing generation levels at the Project would remove the power flow into the local transmission grid (affecting customer's costs, as noted above), but would not affect PacifiCorp's ability to serve its customer load in the vicinity.

## **2.7 STATEMENT OF NEED FOR MODIFICATIONS TO EXISTING PROJECT FACILITIES OR OPERATIONS § 5.18 (C)(1)(I)(G)**

No new or upgraded facilities or structural changes to the Project during the term of the new license are proposed, with the exception of the proposed Protection, Mitigation and Enhancement (PM&E) measures to provide an upstream fish ladder associated with the Project diversion dam, as well as several recreation site amenities and upgrades. Project facilities described previously in Exhibit A would otherwise remain the same under the proposed action.

### **2.7.1 Proposed Project Operation**

No operational changes to the Weber Project during the term of the new license are proposed except for those necessary to accommodate the following Proposed PM&E measures described in detail in both the associated Weber Applicant-Prepared Environmental Analysis (APEA) and Exhibit A: FISH-2, FISH-3, FISH-4, and REC-9.

The fisheries related proposed PM&E measures deal with facilitating fish passage. The proposed fish ladder, with a design flow of 20 cubic feet per second (cfs) through the proposed fishway, would accommodate upstream fish passage for Bonneville cutthroat trout (BCT) and bluehead sucker. The remaining minimum flow (14-30 cfs) would be passed via the existing minimum flow gate and historic fish passage flume. The 20 cfs through the fishway would remain constant with the existing minimum flow gate being used to provide the flow adjustment required to accommodate the varying annual minimum flow requirement (34-50 cfs). To ensure that supplemental attraction flows through the historic fish passage flume provide the necessary attraction flow, when needed, the south radial gate would be opened rather than the north radial gate (currently the north radial gate is opened). In addition, in the event of a prolonged Project outage PacifiCorp would keep the forebay full if possible to ensure fish ladder operation. When the forebay is dewatered PacifiCorp would keep the low-level gate operational, subject to

constraints such as extreme winter icing conditions. Keeping the low-level gate operational would facilitate fish passage when the proposed fish ladder is non-functioning.

The recreation related proposed PM&E measure deals with supporting whitewater boating use of the bypass reach. In the event that a safe and legal egress site is obtained by the boating community and agreed to by the U.S. Forest Service (USFS) and PacifiCorp, PacifiCorp would provide boater flows to the bypass reach by curtailing generation (up to 320 cfs or inflow) for 4-hour segments on four Saturdays prior to July 15 annually. The exact schedule of this provision of boater flows would be determined in conjunction with American Whitewater, and in coordination with the USFS and Davis and Weber Counties Canal Company (DWCCC). Boater flows in the future may be subject to minimum boater use.

In all other respects the Project operations described in Exhibit A would remain the same under the proposed action.

## **2.8 CONSISTENCY WITH COMPREHENSIVE PLANS § 5.18 (C)(1)(I)(H)**

### **2.8.1 Overview**

Section 10(a)(2) of the Federal Power Act (FPA) requires FERC to consider the extent to which a project is consistent with Commission-approved federal and state comprehensive plans for improving, developing, and conserving waterways affected by the project. In accordance with Section 10(a)(1) of the FPA, the list of Commission approved federal and state comprehensive plans was reviewed to determine applicability to the Project.

The Project's consistency with FERC-approved state and federal comprehensive plans is discussed below. The comprehensive plans listed below have not been updated since their development unless otherwise noted. FERC currently lists 18 comprehensive plans for the State of Utah.

### **2.8.2 FERC-Approved State of Utah and Federal Comprehensive Plans**

Unless otherwise noted, these plans have not been updated or updates have not been submitted to FERC for approval since their development dates. Of the 18 listed plans, the following eight were determined to be applicable and were reviewed during the relicensing process to ensure that the Project is consistent with the plan's goals and objectives. Some of the Commission-listed plans have been updated and the current version is not listed. In these cases, PacifiCorp has reviewed the most current version of each listed plan title:

1. Forest Service. 2003. Wasatch-Cache National Forest Land and Resource Management Plan. Department of Agriculture. Salt Lake City, Utah. March 2003.
2. Utah Department of Natural Resources. 2006. Conservation and Management Plan for Three Fish Species in Utah. Salt Lake City, Utah.

3. Utah Department of Natural Resources. 2006. Range-Wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker, and Flannelmouth Sucker. Salt Lake City, Utah.
4. Utah Department of Natural Resources. 2014. 2014 Utah Statewide Comprehensive Outdoor Recreation Plan. Salt Lake City, Utah.
5. U.S. Fish and Wildlife Service. n.d. Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, D.C.
6. Lentsch et al. Conservation Agreement and Strategy for Bonneville Cutthroat Trout in the State of Utah.
7. Lentsch et al. 2000. Rangewide Conservation Agreement and Strategy for Bonneville Cutthroat Trout Rangewide.
8. Weber River Partnership. 2014. The Weber River Watershed Plan.

Of the 18 listed Plans, the following 10 were determined to not be applicable to the Project and were not reviewed during relicensing:

1. Bureau of Land Management. 1990. Proposed Dixie Resource Management Plan/Final Environmental Impact Statement. Department of the Interior, Cedar City, Utah.
2. Bureau of Land Management. 1993. Diamond Mountain Resource Area Management Plan. Department of the Interior, Vernal, Utah. Spring 1993.
3. Forest Service. 1986. Ashley National Forest Land and Resource Management Plan. Department of Agriculture, Vernal, Utah. October 8, 1986.
4. Forest Service. 1990. Fishlake National Forest Land and Resource Management Plan. Department of Agriculture, Richfield, Utah.
5. Forest Service. 1986. Manti-LaSal National Forest Land and Resource Management Plan. Department of Agriculture, Price, Utah.
6. Forest Service. 2003. Uinta National Forest Land and Resource Management Plan. Department of Agriculture, Provo, Utah. May 2003.
7. Forest Service. n.d. Dixie National Forest Land and Resource Management Plan. Department of Agriculture, Cedar City, Utah.
8. National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
9. U.S. Fish and Wildlife Service. 1986. Whooping Crane Recovery Plan. Department of the Interior, Albuquerque, New Mexico. December 23, 1986.
10. U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American Waterfowl Management Plan. Department of the Interior. Environment Canada. May 1986.

### **2.8.2.1 State of Utah Comprehensive Plans**

Utah Department of Natural Resources. 2006. Conservation and Management Plan for Three Fish Species in Utah. Salt Lake City, Utah.

This Conservation and Management Plan describes a strategy for identifying and implementing conservation measures for roundtail chub (*Gila robusta*), bluehead sucker (*Catostomus discobolus*), and flannemouth sucker (*Catostomus latipinnis*) (henceforth referred to as the three species) and their habitats in Utah. Wildlife officials representing the states of Arizona, Nevada, Utah, New Mexico, Colorado, and Wyoming signed the Range-wide Conservation Agreement (Agreement) for the Three Species in April 2004. Federal agencies, such as the Bureau of Land Management and National Park Service, signed the Agreement in 2005. The Agreement was meant to be a generalized schematic of conservation goals and objectives designed to expedite implementation of conservation measures for the species throughout their ranges. Subsequent to the development of the Agreement, the Utah Division of Wildlife Resources (UDWR) developed a Range-wide Conservation Strategy (Strategy) for the three species. The Strategy provides general guidance to each of the cooperators as they develop their state plans, as required by the Agreement.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The 2006 Plan was reviewed against the proposed Project and determined to be consistent.

Utah Department of Natural Resources. 2006. Range-wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker, and Flannemouth Sucker. Salt Lake City, Utah.

This Conservation Agreement was developed to expedite implementation of conservation measures for the roundtail chub (*Gila robusta*), bluehead sucker (*Catostomus discobolus*), and flannemouth sucker (*Catostomus latipinnis*).

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The 2006 Conservation Agreement was reviewed against the proposed Project and determined to be consistent.

Utah Department of Natural Resources. 2014. 2014 Utah Statewide Comprehensive Outdoor Recreation Plan. Salt Lake City, Utah.

The major objectives of the Utah State Comprehensive Outdoor Recreation Plan (SCORP) are to (1) provide information about high-quality outdoor recreation opportunities through Land and Water Conservation Fund grants and other programs, (2) describe state strategic planning to improve the quality of life and health in Utah, and (3) provide facts and recommendations that help guide and justify allocations of scarce matching grant dollars.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving,

developing, or conserving a waterway or waterways affected by a project. The Utah SCORP was reviewed against the proposed Project and determined to be consistent.

#### **2.8.2.2 FERC-Approved Federal Comprehensive Plans**

Forest Service. 2003. Wasatch-Cache National Forest Land and Resource Management Plan. Department of Agriculture. Salt Lake City, Utah. March 2003.

The 2003 Forest Plan guides all natural resource management activities and sets management direction for the Wasatch-Cache National Forest. It was developed to implement Alternative 7, the Preferred Alternative in the accompanying Final Environmental Impact Statement (FEIS) and Record of Decision. This Plan describes what desired future conditions and goals for the Forest are, what priorities have been identified (Objectives), what resource management practice may be employed and where, based on the availability and suitability of lands, and the projected levels of goods and services expected to result from resource management. This Forest Plan provides broad program-level direction for management of the land and its resources.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The 2003 Forest Plan was reviewed against the proposed Project and determined to be consistent.

U.S. Fish and Wildlife Service. n.d. Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, D.C.

This Policy defines the U.S. Fish and Wildlife Service's (USFWS) stewardship role in the management of the Nation's recreational fishery resources. The USFWS believes that the preservation, maintenance, mitigation, and enhancement of aquatic ecosystems is one of the most important roles the Federal government can undertake to ensure high-quality recreational fisheries.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The USFWS Policy was reviewed against the proposed Project and determined to be consistent.

#### **2.8.2.3 Other Relevant Resource Management Plans**

Lentsch et al. Conservation Agreement and Strategy for Bonneville Cutthroat Trout in the State of Utah.

The primary goal of Bonneville Cutthroat Trout Conservation Agreement is to ensure the long-term existence of BCT within its historic range in Utah by coordinating conservation efforts among state agencies, tribal governments, Federal agencies, and other interested partners. Ensuring the long-term existence of BCT in Utah will require: 1) maintaining, improving, restoring and protecting existing and potential BCT habitat, 2) protecting and expanding genetically healthy BCT populations, and 3) conservation outreach.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The Conservation Agreement was reviewed against the proposed Project and determined to be consistent.

Lentsch et al. 2000. Rangewide Conservation Agreement and Strategy for Bonneville Cutthroat Trout Rangewide.

The primary goal of this Agreement is to ensure the long-term existence of Bonneville cutthroat trout within its historic range by coordinating conservation efforts among states, tribal governments, Federal management agencies, and other involved parties.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The Conservation Agreement was reviewed against the proposed Project and determined to be consistent.

Weber River Partnership. 2014. The Weber River Watershed Plan.

The goal of this plan is to recognize both the human and ecological values that the Weber watershed provides, identify and assess challenges and threats to those values, and develop strategies to protect and enhance those values into the future. Restoration and protection actions will be rooted in the universally shared values that were identified through the planning process, which includes: Collective Quality of Life, Water Quantity, Water Quality, Agriculture, Recreational Fishing, Water-based Recreation, and Community and Economic Development.

FPA § 10(a)(2), 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The Weber River Watershed Plan was reviewed against the proposed Project and determined to be consistent.

## **2.9 FINANCIAL AND PERSONNEL RESOURCES § 5.18 (C)(1)(I)(I)**

PacifiCorp has adequate financial resources to meet its obligations under a new license for the Project. PacifiCorp's financial information is available in the annual Securities and Exchange Commission Form 10-K report which can be accessed online at <https://www.last10k.com/sec-filings/ppwlm>.

As of December 31, 2016, PacifiCorp had approximately 5,700 employees, of which approximately 3,300 were covered by union contracts, principally with the International Brotherhood of Electrical Workers, the Utility Workers Union of America and the International Brotherhood of Boilermakers. Currently PacifiCorp has two full-time, operations employees that provide 24/7 coverage along with the Hydro Control Center located in Ariel, Washington, and an assigned multi-functional maintenance team of up to six employees available as needed from the Utah Hydro Operations Center located at the nearby Pioneer Plant, dedicated to support of the Project in varying capacities. Further, engineering and environmental compliance support staff are located in Salt Lake City, Utah, with additional support services and personnel in Portland,

Oregon. The local employees are adequate in number and have the appropriate training to operate the Project in accordance with the provisions of the license.

## **2.10 NOTIFICATION OF AFFECTED LANDOWNERS § 5.18 (C)(1)(I)(J).**

PacifiCorp does not propose to expand the Project to encompass additional lands of others. Therefore, notification of adjacent landowners will not be made beyond the two property owners of record in the property within the bounds of the Project per CFR 18 § 4.32(a). Formal letters of notification were sent to both parties that own lands which are part of the Project, although as license stakeholders, they will also be notified along with all other identified Project stakeholders.

## **2.11 APPLICANT'S ELECTRICITY CONSUMPTION EFFICIENCY IMPROVEMENT PROGRAM § 5.18 (C)(1)(I)(K)(1)**

Customer conservation is encouraged through PacifiCorp's "wattsmart" energy efficiency programs, which include cash incentives for home energy upgrades. The wattsmart program includes tools and information to help customers save energy and money through the following methods, available online at <https://www.pacificpower.net/res/sem/eeti.html>:

- Efficiency Video Clips—Customers can follow the "high-bill detective" through six areas of the home where they can make improvements to save money.
- Calculate Energy Use—Customers choose from common appliances and equipment for the home to gain a better understanding of electricity use.
- Usage Data—Customers can download monthly electricity usage information on PacifiCorp's website and use the data to see how a customer's home measures up.
- PacifiCorp Online Home Analysis—Customers can fill out this online survey and get customized recommendations for savings in a home.
- Department of Energy Online Home Audit—Customers can complete this online survey about a home to find out how they use energy and get detailed instructions on how to reduce consumption.

## **2.12 INDIAN TRIBES AFFECTED BY THE PROJECT § 5.18 (C)(1)(I)(L)**

The existing and proposed Project is not located on or otherwise affecting the land of any Indian tribes.

### **3.0 INFORMATION TO BE PROVIDED BY AN APPLICANT WHO IS AN EXISTING LICENSEE**

#### **3.1 MEASURES PLANNED TO INSURE SAFE MANAGEMENT, OPERATION AND MAINTENANCE OF THE PROJECT § 5.18 (C)(1)(II)(B)**

Per Section 10 (c) of the FPA, FERC is authorized to establish regulations requiring licensees to operate and properly maintain their projects for the protection of life, health, and property. The Weber Project dam is classified as a low hazard rating with a regulatory inspection frequency of every three years; however, several measures are taken to ensure safe management of the project.

PacifiCorp employees attend monthly safety meetings. All mandated safety training is tracked along with other core competency training. In addition to regular, monthly safety training, staff members meet daily to review the day's assignments and raise awareness about the potential hazards and practices to be followed. PacifiCorp maintains an electronic database of safety incidents. The database was reviewed from 2005 through June 2016 for any incidents at the Project; no OSHA-reportable, restricted duty, or lost time incidents were incurred by Project staff. There are no known records of injury or death to the public within the Project boundary. The most recent Public Safety Plan was filed with the Commission on December 18, 2014.

See Exhibit A, Section 10 for Project safety information.

#### **3.2 CURRENT OPERATION OF THE PROJECT § 5.18 (C)(1)(II)(C)**

A description of the Project operation is contained in Exhibit A of this Final License Application.

#### **3.3 PROJECT HISTORY § 5.18 (C)(1)(II)(D)**

The Project was initially constructed in 1909-1910 by Utah Light and Railway Company and then acquired by a predecessor company to PacifiCorp (Utah Power & Light) and became part of Rocky Mountain Power and PacifiCorp in 1915. The project has a generating capacity of 3.85 MW. The original license was made effective January 1, 1938 and expired June 30, 1970. Subsequently, a FERC operating license was issued annually for the period of June 30, 1970 to June 28, 1990, due to a dispute with a nearby municipality that wanted to acquire the Weber Project. After a follow-up relicensing process with FERC, the current license was issued on June 28, 1990. It expires on May 31, 2020.

#### **3.4 LOST GENERATION DUE TO UNSCHEDULED OUTAGES § 5.18 (C)(1)(II)(E)**

Table 2 below details lost generation from 2013-2018.

**Table 2. Lost Generation and Explanation for Outages for Last 5 Years**

| Outage Start<br>(date/time) |       | Outage End<br>(date/time) |        | Duration<br>(hours) | Potential Lost<br>Generation | Cause                                                                          |
|-----------------------------|-------|---------------------------|--------|---------------------|------------------------------|--------------------------------------------------------------------------------|
| Date                        | Time  | Date                      | Time   | hrs.                | MWh                          |                                                                                |
| 2/23/2013                   | 06:00 | 2/27/2013                 | 06:16  | 96.3                | 370.63                       | Dewatering and rewatering equipment                                            |
| 3/21/2013                   | 01:30 | 3/21/2013                 | 03:27  | 2.0                 | 7.51                         | Transmission system problems other than catastrophes (not switchyard problems) |
| 3/26/2013                   | 09:03 | 3/26/2013                 | 09:20  | 0.3                 | 1.09                         | Brushes and brush rigging.                                                     |
| 4/9/2013                    | 05:37 | 4/9/2013                  | 07:37  | 2.0                 | 7.70                         | Transmission system problems other than catastrophes (not switchyard problems) |
| 6/15/2013                   | 06:05 | 6/15/2013                 | 10:20  | 4.3                 | 16.36                        | Generator metering devices                                                     |
| 7/6/2013                    | 17:29 | 7/6/2013                  | 18:59  | 1.5                 | 5.78                         | Transmission system problems other than catastrophes (not switchyard problems) |
| 9/11/2013                   | 20:54 | 9/12/2013                 | 00:59  | 4.1                 | 15.72                        | Other misc. external problems.                                                 |
| 2/27/2014                   | 11:00 | 7/11/2014                 | 11:00  | 3216.0              | 12,381.60                    | Penstock modifications.                                                        |
| 8/15/2014                   | 01:30 | 8/15/2014                 | 9:15   | 7.8                 | 29.84                        | Forced outage--line disturbance                                                |
| 9/1/2014                    | 04:23 | 9/1/2014                  | 05:55  | 1.5                 | 5.90                         | Forced outage--line disturbance                                                |
| 4/30/2015                   | 14:54 | 4/30/2015                 | 18:35  | 3.7                 | 14.18                        | Forced outage--line disturbance                                                |
| 5/7/2015                    | 17:37 | 5/7/2015                  | 18:40  | 1.1                 | 4.04                         | Forced outage--line disturbance                                                |
| 6/15/2015                   | 21:33 | 6/15/2015                 | 22:30  | 1.0                 | 3.66                         | Forced outage--line disturbance                                                |
| 8/10/2015                   | 07:54 | 8/10/2015                 | 09:00  | 1.1                 | 4.24                         | Forced outage--line disturbance                                                |
| 9/1/2015                    | 16:31 | 9/1/2015                  | 17:30  | 0.9                 | 3.79                         | Forced outage--line disturbance                                                |
| 9/14/2015                   | 19:06 | 9/14/2015                 | 20:30  | 1.4                 | 5.39                         | Forced outage--line disturbance                                                |
| 9/16/2015                   | 08:37 | 9.16/2015                 | 09:50  | 1.2                 | 4.68                         | Forced outage--line disturbance                                                |
| 9/23/2015                   | 16:56 | 9/23/2015                 | 18:30  | 1.6                 | 6.03                         | Forced outage--line disturbance                                                |
| 4/4/2016                    | 01:20 | 4/4/2016                  | 2:20   | 1.0                 | 3.85                         | Forced outage--line disturbance                                                |
| 4/25/2016                   | 12:26 | 4/25/2016                 | 14:40  | 2.2                 | 8.60                         | Forced outage--line disturbance                                                |
| 7/3/2016                    | 15:37 | 7/3/2016                  | 17:00  | 1.4                 | 5.33                         | Forced outage--line disturbance                                                |
| 7/12/2016                   | 00:04 | 7/12/2016                 | 01:05  | 1.0                 | 3.91                         | Forced outage--line disturbance                                                |
| 8/7/2016                    | 10:05 | 8/7/2016                  | 12:45  | 2.7                 | 10.27                        | Forced outage--line disturbance                                                |
| 9/22/2016                   | 14:50 | 9/24/2016                 | 10:00  | 43.0                | 166.19                       | Lightning damage--exciter repair                                               |
| 11/30/2016                  | 04:34 | 3/15/2018                 | -10:00 | -10343.9            | 39824.15                     | Turbine seal and bearing damage-                                               |
| 4/9/2018                    | 12:20 | 4/10/2018                 | 08:24  | 20.1                | 77.26                        | Turbine shaft maintenance                                                      |

### 3.5 LICENSEE'S RECORD OF COMPLIANCE § 5.18 (C)(1)(II)(F)

The Project has a good record of compliance with the terms and conditions of the existing license. A review of the Licensee's records indicates no violations of the terms and conditions of the license. On December 20, 2016, FERC issued a notice to PacifiCorp informing them that a minimum flow deviation that occurred April 5-9, 2016, and reported by PacifiCorp when it was discovered in late 2016, was not considered a violation of Article 401. When Commission staff

reviewed PacifiCorp’s compliance history, it was found to be a first-of-its-kind event, and unlikely to be repeated (due to additional procedures put in place by PacifiCorp when it was discovered). The Licensee has received no other communication from the Commission indicating possible non-compliance.

### **3.6 ACTIONS AFFECTING THE PUBLIC § 5.18 (C)(1)(II)(G)**

The licensee is not proposing any action that directly affects the public, with the following exceptions:

- Additional and improved proposed public recreation amenities at the Weber Recreation Site, including a new permanent vault toilet, upgraded accessible amenities, and improved trails in the local area.
- Improved interpretive signage and online information about Weber Project area flows.
- The potential for future whitewater flows in the bypassed reach of the river.
- Improved fisheries resources that will in turn improve angling opportunities in the larger watershed with the implementation of a new fish ladder, as noted previously.

These actions should affect the public by improving their potential recreation experiences in the future. Further information on public safety can be found in Section 3.1 and Exhibit A, Section 10.0.

### **3.7 OWNERSHIP AND OPERATING EXPENSES THAT WOULD BE REDUCED IF THE LICENSE WERE TRANSFERRED § 5.18 (C)(1)(II)(H)**

PacifiCorp is applying for a long-term license to continue to maintain and operate the Project. Additionally, there is no competing application to take over the Project. Because there is no proposal to transfer the Project license, this section is not applicable to the Project.

### **3.8 ANNUAL FEES FOR USE OF FEDERAL OR NATIVE AMERICAN LANDS § 5.18 (C)(1)(II)(I)**

**Table 3. Annual Fees Paid Under Part I of the Federal Power Act**

|                                                                                                                                                                                                                                            | <b>Federal Land Acreage</b> | <b>Transmission Line Acreage</b> | <b>Total Annual Fees Paid</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------|-------------------------------|
| Current                                                                                                                                                                                                                                    | 15.51                       | 0.02                             | \$10,670.12                   |
| Proposed                                                                                                                                                                                                                                   | 14.92                       | 0.02                             | \$10,670.12 <sup>1</sup>      |
| <sup>1</sup> This is not expected to change, as the amount is based on the nameplate capacity of the Project, which will not change; annual FERC Land Use fees (\$246) may decrease slightly (but are not listed under Part I of the FPA)] |                             |                                  |                               |