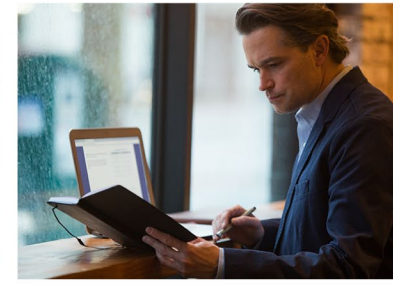


Cutler Project Pumped Storage Hydroelectric Generation: April 2024 Update



Welcome

Cutler Project Team:

Eve Davies – Relicensing Project Manager(PacifiCorp)

Todd Olson – Director of License and Compliance (PacifiCorp)

Jack Kolkman – Director of License and Compliance (PacifiCorp)

Dave Eskelsen – Sr External Communications Staff (PacifiCorp)

Nuria Holmes – Project Manager (SWCA)

Annie Ng – Assistant Project Manager (SWCA)

Rashail DeMinck – Project Coordinator (SWCA)



Pacific Power
Rocky Mountain Power



Cutler Project Team

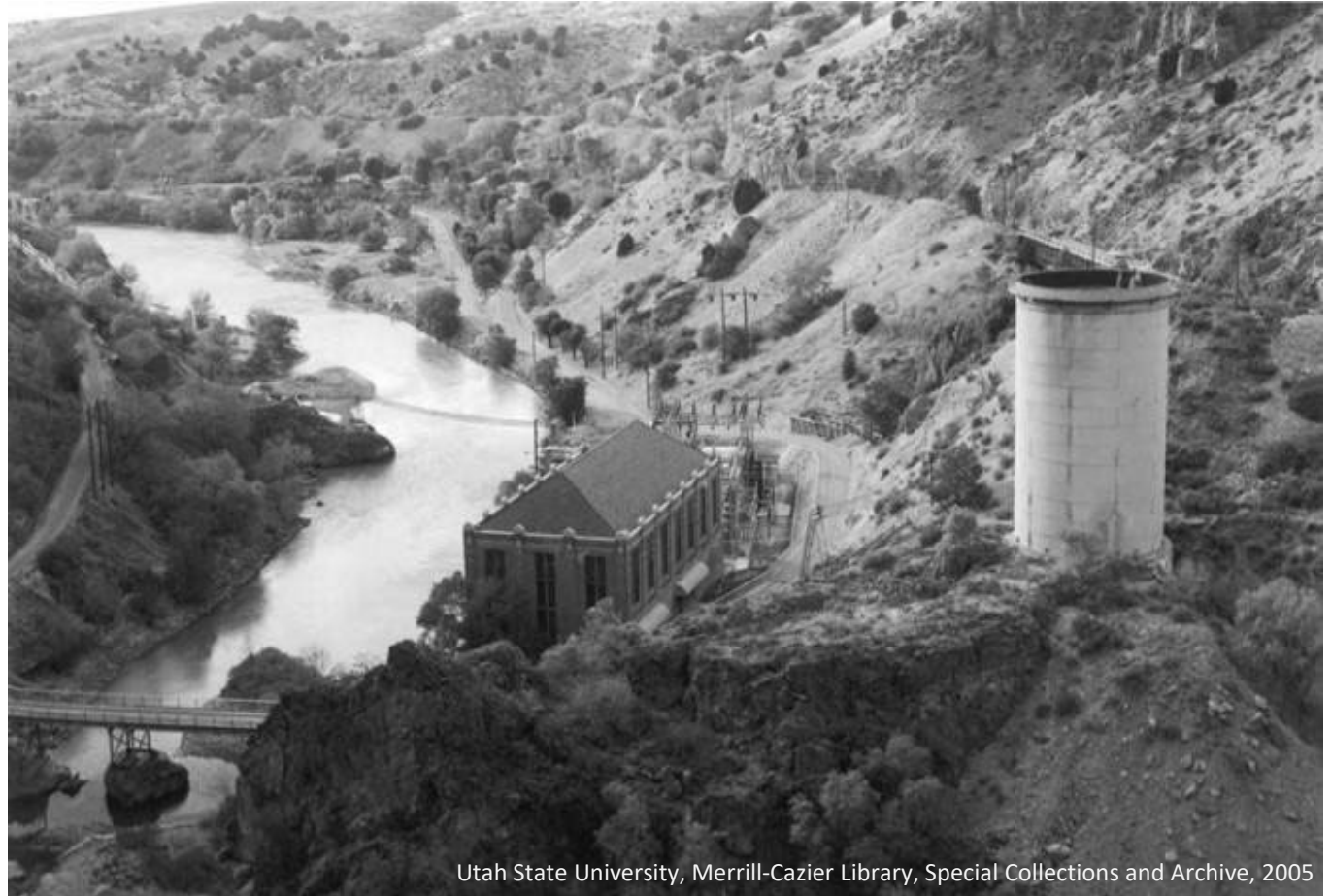


River Science
Institute
(John Gangemi)

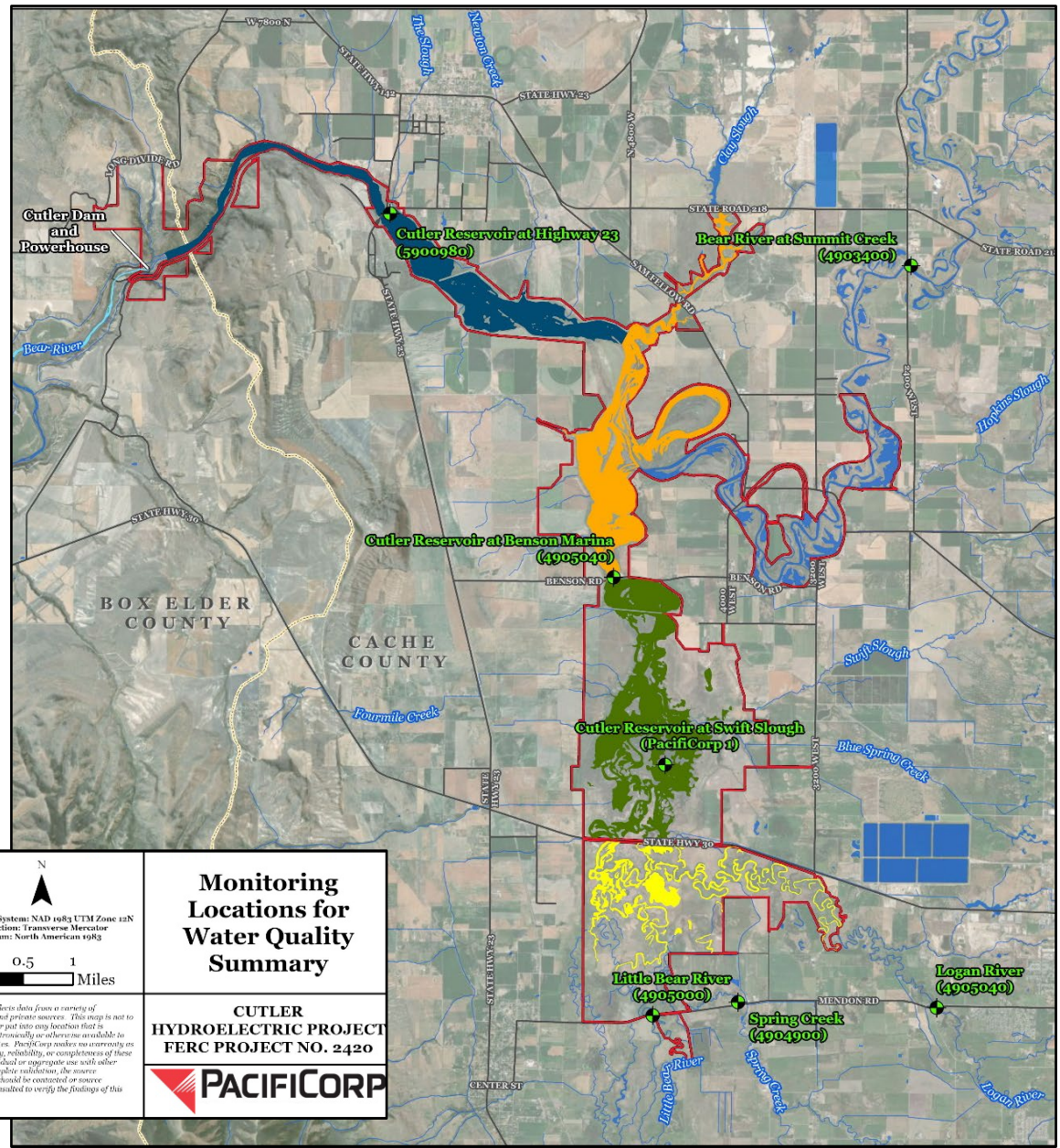
Miriam
Hugentobler

Today's Agenda

- Cutler Project Overview and Licensing Update
- Pumped Storage Feasibility-Review
- Discussion of the Potential License Capacity Amendment
- Three-Stage Consultation Process and Tentative Schedule
- Questions and Discussion



Cutler Project Map



	FERC Project Boundary (Project No. 2420)
	Monitoring Location
Management Units	
	Riverine Unit
	South Marsh
	North Marsh
	Reservoir
	Cutler Canyon

N

Coordinate System: NAD 1983 UTM Zone 12N
Projection: Transverse Mercator
Datum: North American 1983

0 0.5 1
Miles

PacifiCorp collects data from a variety of government and private sources. This map is not to be released nor put into any location that is accessible electronically or otherwise available to market participants. PacifiCorp makes no warranty as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. For complete information, the source organization should be contacted or source documents consulted to verify the findings of this product.

**Monitoring
Locations for
Water Quality
Summary**

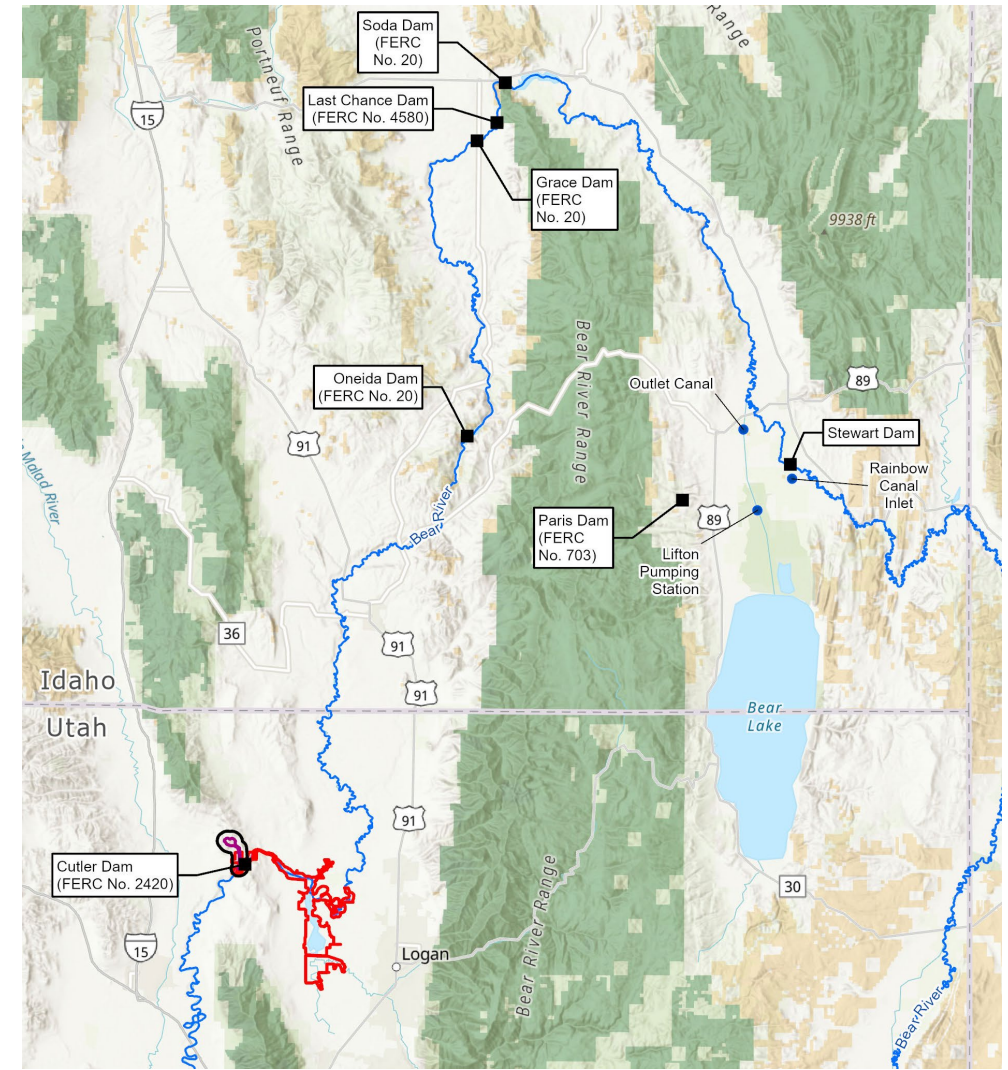
CUTLER
HYDROELECTRIC PROJECT
FERC PROJECT NO. 2420

PACIFICORP

Existing Cutler Hydroelectric Project (P-2420)

- The Cutler Hydroelectric Project, FERC Project No. 2420, is a 30 megawatt (MW) generating hydropower facility located on the Bear River in Box Elder and Cache counties, Utah.
- The Project has been in operation since 1927.
- Annually, the Cutler Project produces on average 72.5-gigawatt hours (GWh) of electric energy.
- The Project Boundary covers approximately 9,277 acres, including open water and associated wetlands and uplands (there are no federal lands within the Project Boundary).
- Project operations managed in collaboration with other hydroelectric projects in the Bear River system.
- Required to operate the Bear River to meet needs of 1) flood control, 2) irrigation, 3) hydropower generation.
- Typically, no generation during later irrigation season, after natural flows decline (July through September).

Currently in final stages of relicensing (FLA in March 2022)



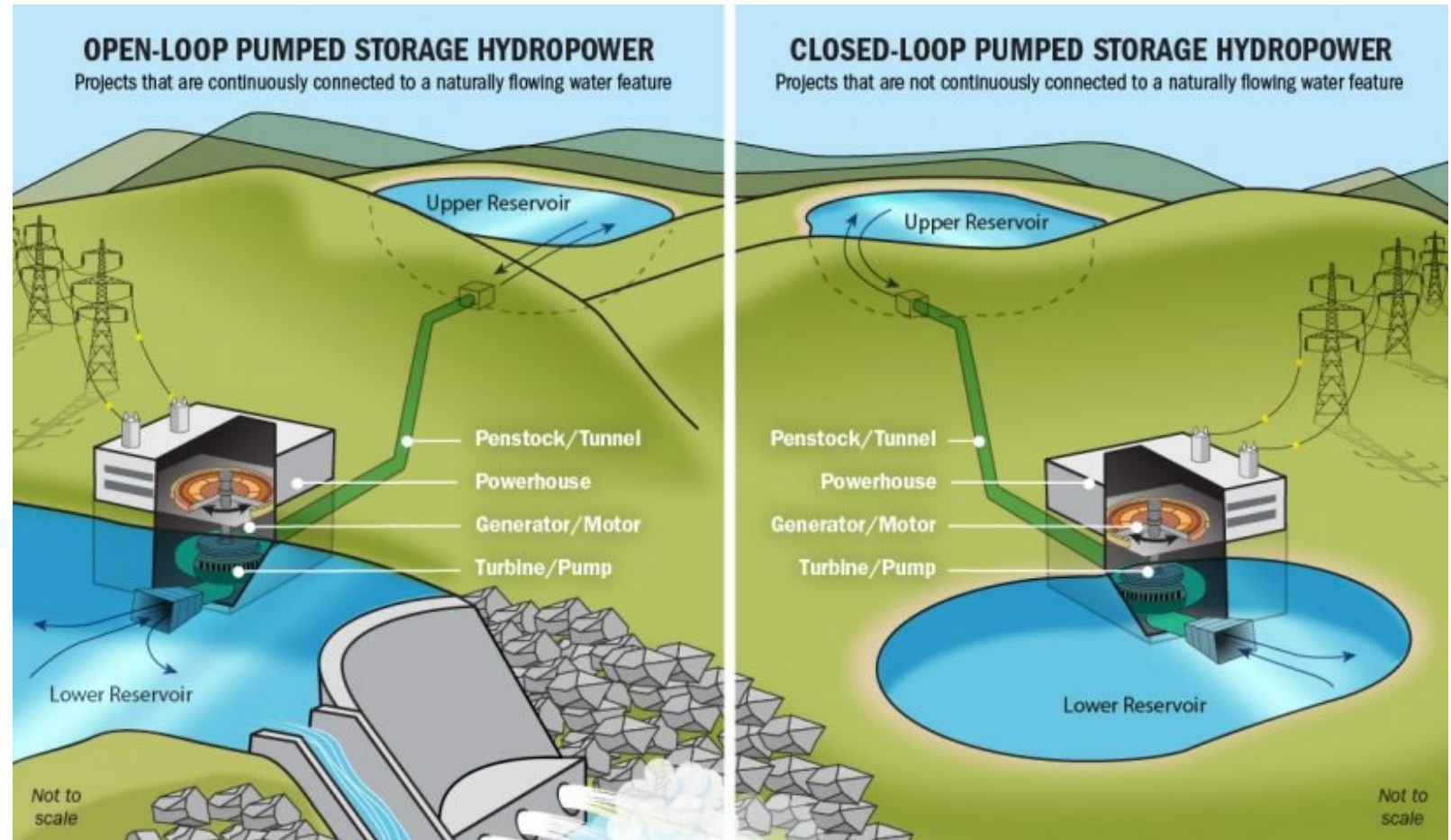
Cutler Project Relicensing Update

- On March 28, 2022, PacifiCorp submitted its Final License Application (FLA) to FERC to relicense the Project. The Project license expired on March 31, 2024; *an annual license was issued by FERC on April 10, 2024.*
- The Project is now operating on annual licenses until FERC issues the new Cutler major project license.
- PacifiCorp is waiting on FERC's independent environmental analysis (EA) and subsequent license order.



What Does Pumped Storage Look Like?

- A type of hydroelectric energy storage that uses two reservoirs to generate power.
- Requires two reservoirs at different elevations, connected by a conduit.
 - At times of surplus grid generation availability (when paired with intermittent generation resources)/low power prices, water is pumped from the lower reservoir to the upper reservoir.
 - At times of additional generation need/high electricity prices, water is released from the upper reservoir and passed through a turbine to generate power.
- The facility functions as a “battery” – storing power in the form of water and then releasing it when needed.



Source: DOE

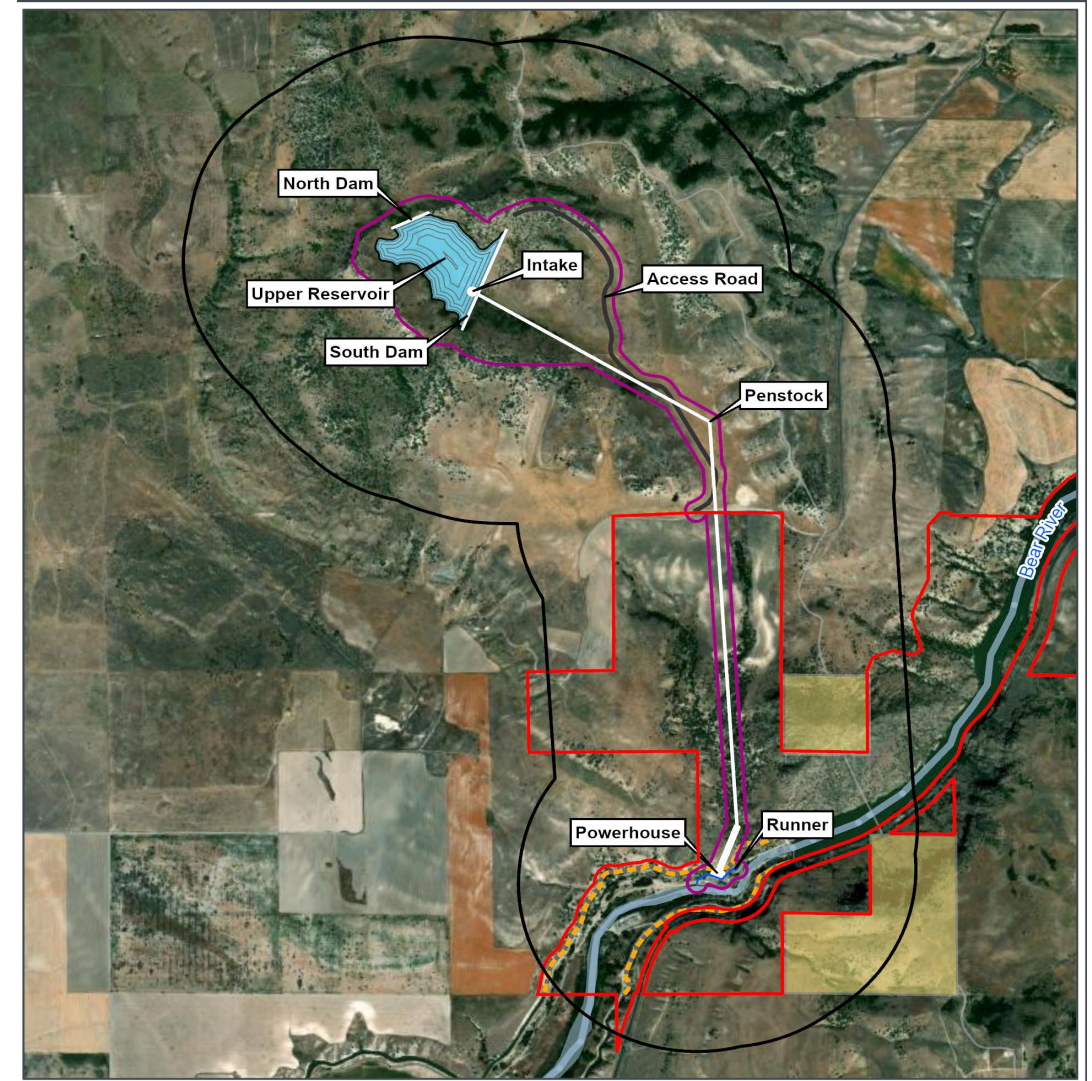
Pumped Storage at Cutler Project – Still in Initial Feasibility Review



Cutler Powerhouse, Flowline, and Dam – Cutler Canyon walls in the background

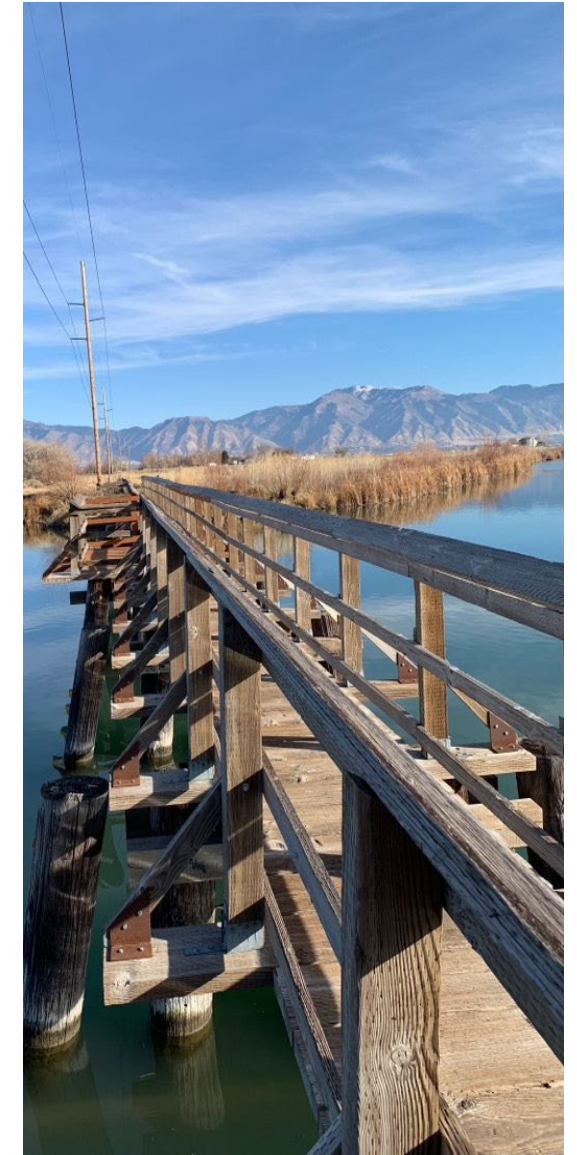
Proposed Pumped Storage

- PacifiCorp may propose to amend the new Cutler Project license (subject to FERC's future license order) to construct an open-loop pumped storage facility.
 - Open-loop systems connect a reservoir to a continuous flowing natural water source, employing turbines/pumps and generators/motors to generate electricity by moving water.
- The potential addition of pumped storage to the existing Cutler Project aims to enhance electric system flexibility and reliability by storing energy generated from growing renewable resources interconnected to PacifiCorp's transmission system.



Process Updates: Project Relicensing into the License Amendment Process

- PacifiCorp needs a new Cutler Project license before we can obtain a license amendment.
- In the interim, PacifiCorp intends to file an Initial Consultation Document(ICD) to initiate the three-stage consultation process for a license capacity amendment.
- The ICD will help guide the ongoing feasibility assessment, and will help to determine what studies will be needed to develop a license amendment application.
- The ICD will likely be filed and available for public review and comment, in late May of 2024, which triggers additional public comment process.



FERC Capacity Amendment Requirements

A capacity-related amendment is a project modification for additional capacity not previously authorized.

18 CFR 4.201(b):

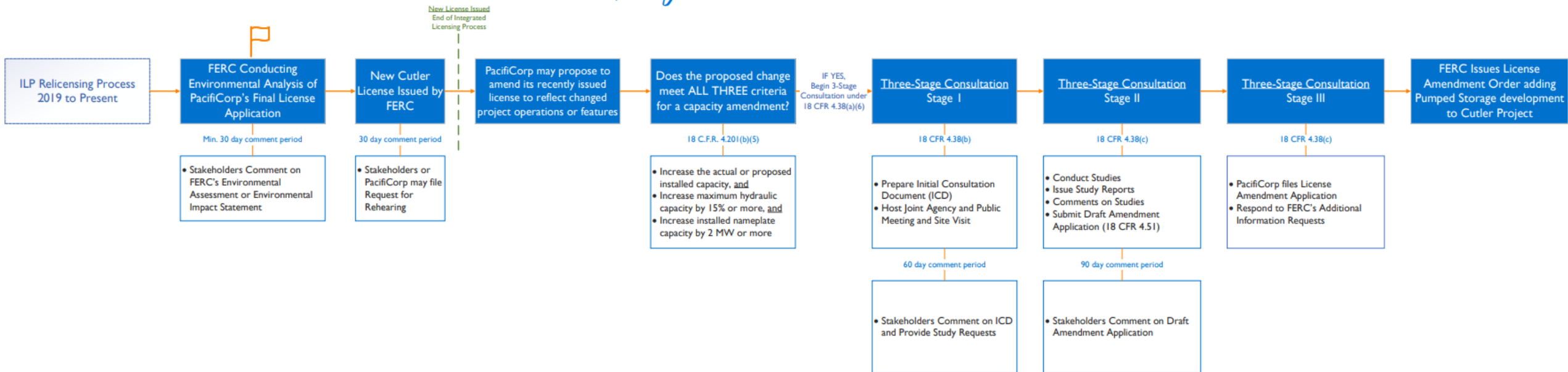
- ✓ increase the project's actual or proposed total installed capacity;
- ✓ result in an increase in the project's maximum hydraulic capacity by 15 percent or more;
- ✓ and result in an increase in the installed nameplate capacity of 2 MW or more.



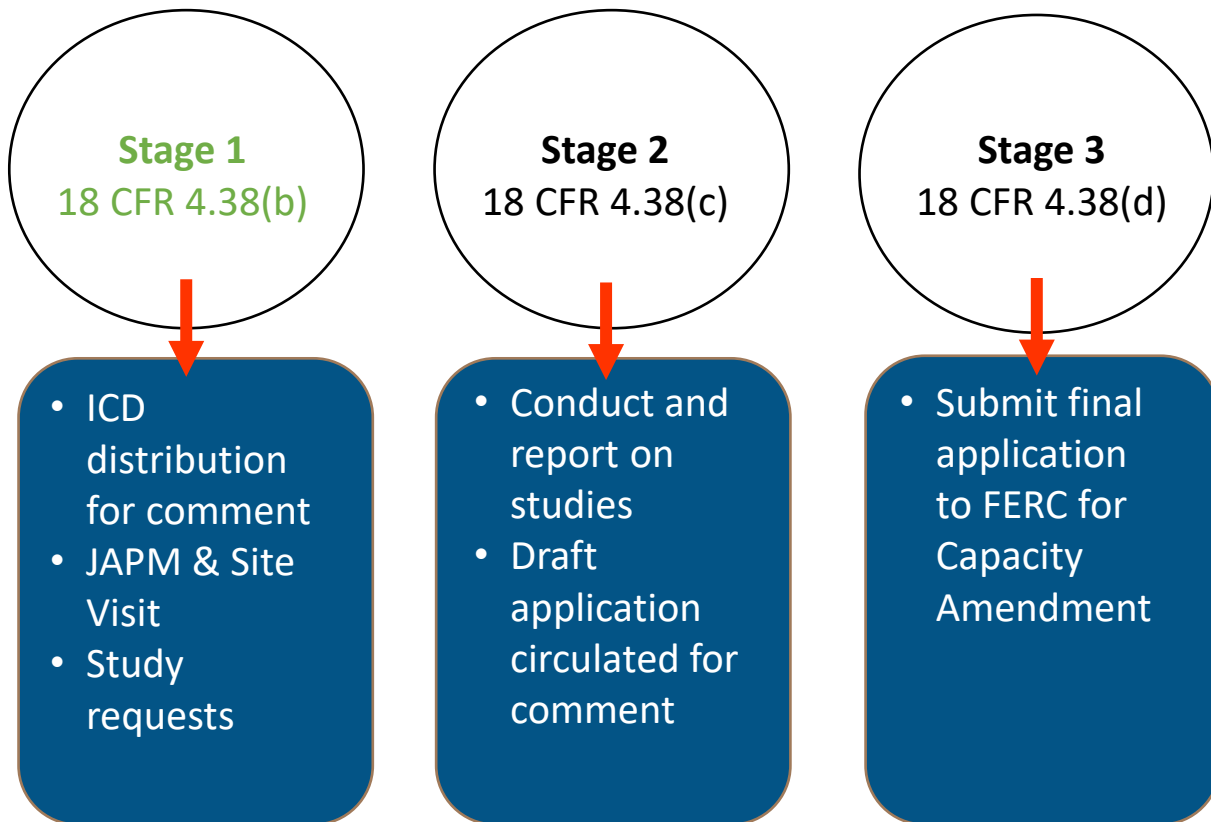
Credit Wikimedia commons

Capacity-related License Amendment Process (18 CFR 4.38)

Capacity-related License Amendment Process under 18 CFR 4.38



Three Stage Consultation Process (18 CFR § 4.38)



Three-stage consultation involves:

- Filing an ICD with FERC (available on FERC’s eLibrary); notifying interested parties of the ICD filing/publish on PacifiCorp’s website – *May 2024*.
- Formally consulting with relevant agencies, Tribes, and other interested parties by hosting a Joint Agency Public Meeting and Project site visit – *June 2024*.
- Conducting study planning and reporting study results – *future*.
- Drafting and circulating a draft license amendment application for interested parties’ review – *future*.

New Pumped Storage Feasibility Analysis

Per 18 CFR 4.38(b)(2)(vii), detailed descriptions of any proposed studies to be employed are required of the proposed action.

Potential Information Needs:

1. Water resources (quantity, quality, water rights)
2. Hydraulic Modeling and Sedimentation (including Erosion)
3. Fisheries and Aquatic resources
4. Botanical and Wildlife resources
5. Rare, threatened, and endangered species
6. Tribal / Cultural and historic resources
7. Recreational resources
8. Land use and cover
9. Aesthetic and visual resources
10. Socioeconomic resources/Environmental Justice
11. Geotech/Stability (potential new components)
12. Project economics/customer benefit



License Capacity Amendment: Tentative Schedule

Responsible Entity	Milestone	Estimated Milestone Date
<i>Pre-Consultation Activities- Prior to Exemption Application Submittal</i>		
PacifiCorp	Identify data gaps and develop list of preliminary studies	On-going
PacifiCorp	Conduct preliminary studies	N/A
<i>Stage 1 Consultation § 4.38(b)</i>		
PacifiCorp	File and distribute Initial Consultation Document (ICD) and proposed studies for comment and requesting additional study requests, if applicable Request designation as FERC’s non-federal representative for informal consultation pursuant to Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act	Late May 2024
PacifiCorp	Provide notification of joint agency and public meeting (JAPM) meeting location and timing	End of June 2024
FERC	FERC issues notice of approval of non-federal representative designation for informal consultation	Summer 2024
PacifiCorp/Interested Parties	JAPM and site visit	Summer 2024
FERC/Interested Parties	<i>Comments Due:</i> Initial Consultation Document <i>Deadline:</i> Proposed Study Requests	90 days following the JAPM
<i>Stage 2 Consultation § 4.38(c)</i>		
PacifiCorp	Pending results of Stage 1 Consultation.	<i>Future Action</i>
<i>Stage 3 Consultation § 4.38(d)</i>		
PacifiCorp	Submit final application for license capacity amendment	<i>Future Action</i>
FERC	FERC issues an order (subject to change)	??



Thank you! Any questions?

Cutler Pumped Storage summary and update sheet will be distributed following this meeting

To access on-going relicensing materials, please go to: <https://www.pacificorp.com/energy/hydro/cutler.html>

You can email questions or comments to PacifiCorp: Cutlerlicense@gmail.com