FERC Hydropower Projects on Wild and Scenic Rivers

RMS Symposium
October 25, 2018
Vancouver, WA

Primary Messages to Remember

1. FERC hydropower licensing provides an opportunity to protect and enhance Wild and Scenic River values.
2. Hydro proceedings are complicated and time-consuming.
    a. Requires early, dedicated, collaborative participation throughout process
3. Help is available.

Presenters

Session 1 - Overview

Moderator - Joan Harn, NPS River Programs Mgr, Conservation and Outdoor Rec.
Hydro Projects & WSRs - Joni Gore, NPS WSR Fellow
FERC Licensing Process - Susan Rosebrough, NPS River Projects Mgr, Pacific West
WSR Standards - Lisa Machnik, USFS Recr, Heritage, Lands & Partnerships Staff Officer
Policy Challenges - Richard Roos-Collins, Water Power Law Group, Principal

Session 2 - Case Studies, Resources & Panel Discussion

Objectives

Explain how Wild and Scenic River protection relates to FERC hydropower.

Identify projects where Wild and Scenic River values need to be addressed in FERC hydro licensing.

Identify basic processes and standards used in FERC hydropower licensing proceedings.

Identify challenges, resources, and approaches to protect and enhance wild and scenic river values during FERC hydro proceedings

Hydropower & Wild and Scenic Rivers

WSRA purpose - balance dam building by protecting free flow of select rivers

Jackson Lake Dam Boat Launch on the Snake River in Grand Teton National Park (NPS/Mattson)

Secretary of the Interior tours Don Pedro Dam Powerhouse on the Tuolumne River (DOI/Hogue)

Condit Dam on the White Salmon River prior to removal (Thomas O'Keefe)

Proposed FERC Hydro Prevented with WSR Designation

Klamath River, Oregon. Salt Caves Dam proposal along a 17 mile free flowing stretch (Tim Palmer)

East Rosebud Creek, Montana. Designated in 2018 in response to hydropower proposals (Mike Fiebig)

What is FERC Hydro?

FERC Hydro - 2500 dams; ~55,500 MW

- Regulated under the Federal Power Act
- Licensed for 30 - 50 years, subject to renewal process; Exemptions - permanent authorization
- Oversight of all ongoing project operations, including dam safety and environmental monitoring
- May authorize non-federal hydro on Federal dams - doesn't change Federal dam flow regime
- Subject to WSRA Sec. 7 provisions prohibiting new construction of project works and provisions for water resources projects

Federal Hydro - 163 dams; ~45,500 MW

- Authorized by Congress
- No time limits
- Oversight by US Army Corps of Engineers, US Bureau of Reclamation, Tennessee Valley Authority
- Special requirements for adding non-federal hydro to structures
- Subject to WSRA Section 7 provisions for water resources projects

Hydropower Provisions in the WSR Act - Overview

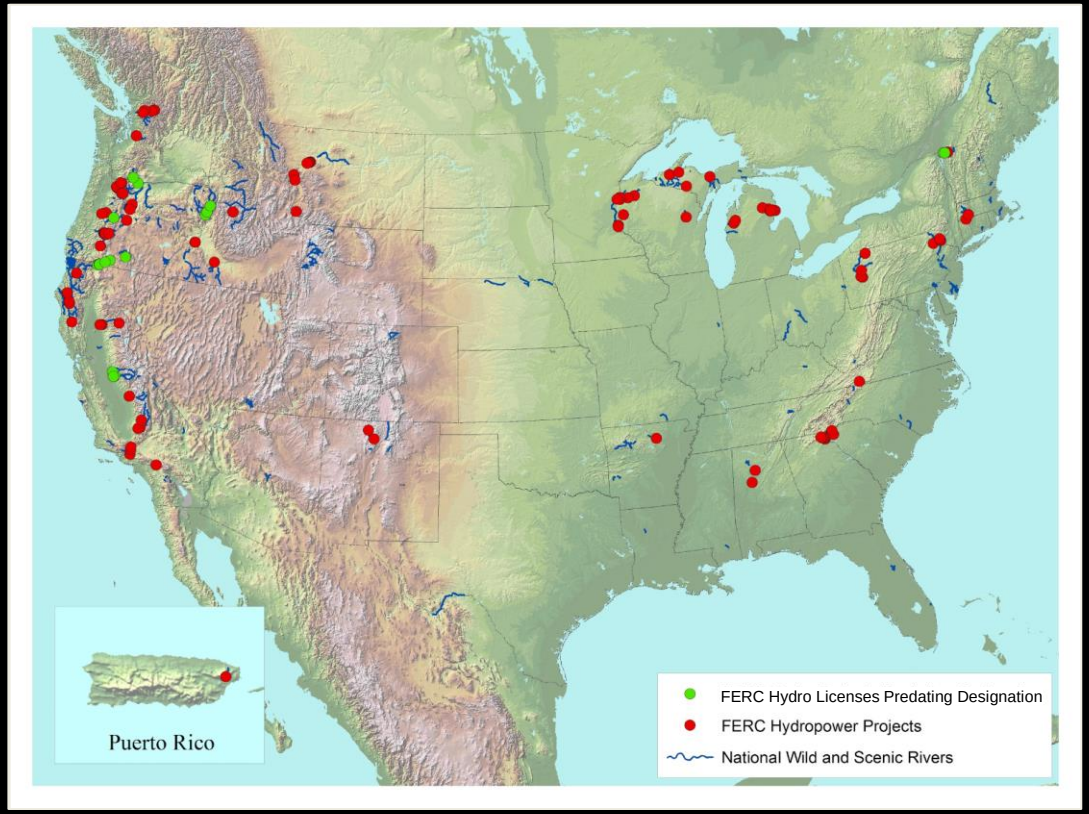
- No new FERC hydropower construction on or directly affecting

- Existing FERC hydropower can be relicensed
  - Subject to river agency's Section 7 determination

FERC Hydro Projects & Wild and Scenic Rivers

79 FERC Hydropower projects in proximity to designated Wild and Scenic Rivers

30 of the current licenses pre-date Wild and Scenic River designation

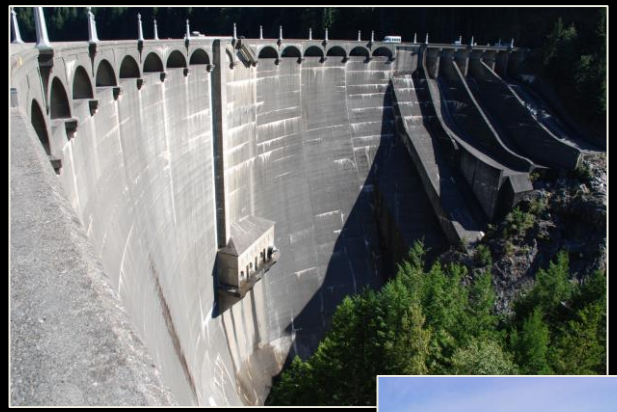


FERC Hydro Projects within WSR Corridors

Left: Hayward Dam on the Namekagon, Inset: Hayward Hydro signage (NPS/Harn)

Below: Canoeing on Namekagon River, a tributary to the St. Croix in Wisconsin (NPS/Van Tatenhove)

FERC Hydro Projects Upstream and Downstream of WSRs



Diablo Dam upstream of the Skagit Wild and Scenic River (Thomas O'Keefe)

Rafting on the Skagit Wild and Scenic River (Thomas O'Keefe)

Hells Canyon Dam upstream of the Snake Wild and Scenic River (Joni Gore)

FERC Hydro Projects on WSR Tributaries

Lower Baker River Dam (Thomas O'Keefe)

Baker River, tributary of Skagit Wild and Scenic River (Thomas O'Keefe)

How can involvement in the process benefit WSRs?

Environmental instream improvements: flows, habitat improvements, erosion/invasive control

Upstream Fish Trap on tributary to Skagit River (Puget Sound Energy)

Gravel augmentation in the lower Deschutes River (Portland General Electric)

How can involvement in the process benefit WSRs?

Recreational improvements: recreational flows, river access, campgrounds, interpretative signage

Before Site Improvements

Before Site Improvements

After Site Improvements Implemented

Before and after river access improvements at Hole in the Wall on the Clackamas River through relicensing (River Access Framework)

How can involvement in the process benefit WSRs?

Funding for planning, maintenance and monitoring

Funding for sandbar maintenance in Hells Canyon (NPS/J. Gore)

Stream gauge on Au Sable River (USGS)

How can involvement in the process benefit WSRs?

Dam removals

Paddlers under the bridge that once framed Marmot Dam on the Sandy River (Thomas O'Keefe)

Paddlers explore the White Salmon River that was buried under a reservoir for the past century (Thomas O'Keefe)

How have WSR issues been addressed?

- WSR issues often not explicitly addressed
- Inconsistent approach to WSR Section 7(a) Determinations
  - WSR Act Section 7 reviews not always done
  - When done:
    - correct standard not always used
    - some limited to a determination, without detailed evaluation
    - scope varies - some operations only v. operations & measures
- FERC treatment of WSR issues appears to have changed

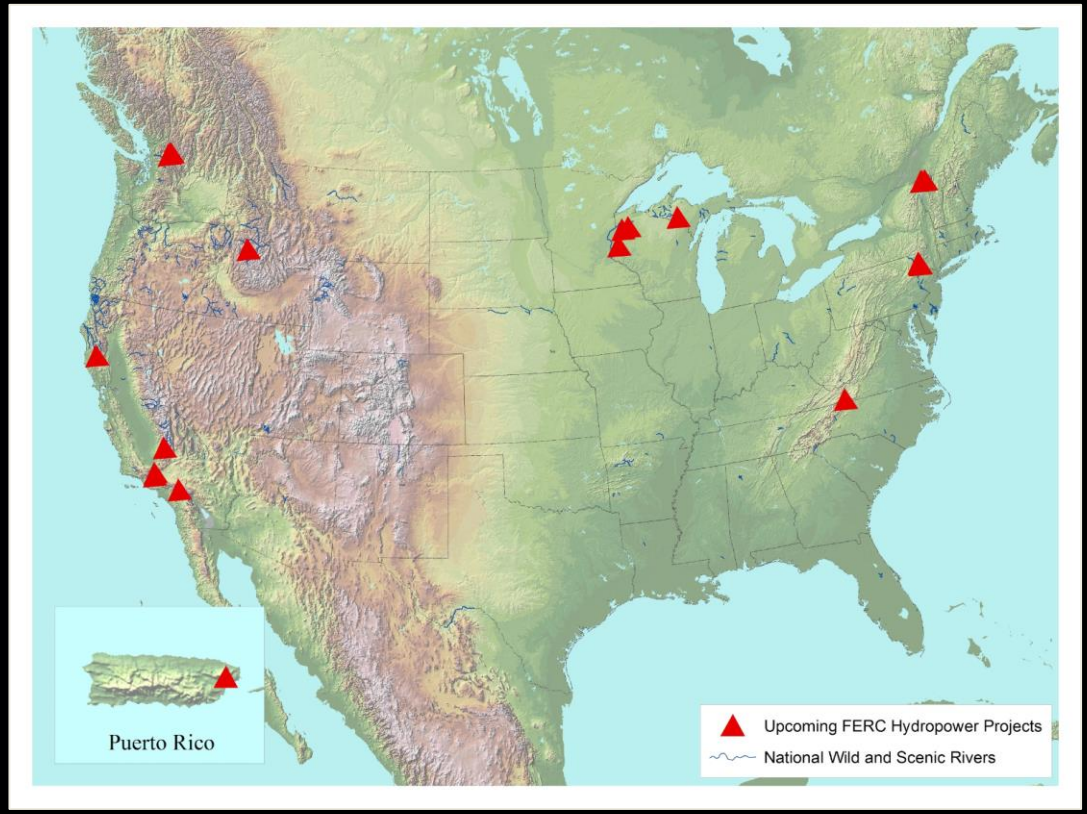
FERC Projects near WSRs expiring by 2030

East Coast
- 3 projects downstream of Missisquoi River
- 3 projects on a tributary of Upper Delaware
- 1 project downstream of New River

Midwest
- 2 projects on Saint Croix (Namekagon) River
- 1 project on a tributary of Saint Croix
- 1 projects downstream of Paint River

West Coast
- 1 project upstream of the Eel River
- 1 project on the Kern River
- 1 project upstream of Piru Creek
- 1 project on a tributary of Middle Fork Salmon River
- 1 project upstream of Skagit River

Puerto Rico
- 1 project within the WSR corridor and on a tributary of Rio Icacos



Who is FERC?

- Independent Commission
- 5 members, 3 from one party/2 from the other
- Regulates non-Federal hydroelectric projects
- Lead on NEPA, Administers quasi-legal proceedings
- Maintains administrative record

Licensing Process Overview

- 5-6+ year process
- FERC issues the decision to license a project for 30-50 years via a “Commission Order”
  - Best adapted comprehensive plan for development and utilization of the waterway
- Many parties with varying goals
- There are a number of conditions that some agencies can place on the license sometimes

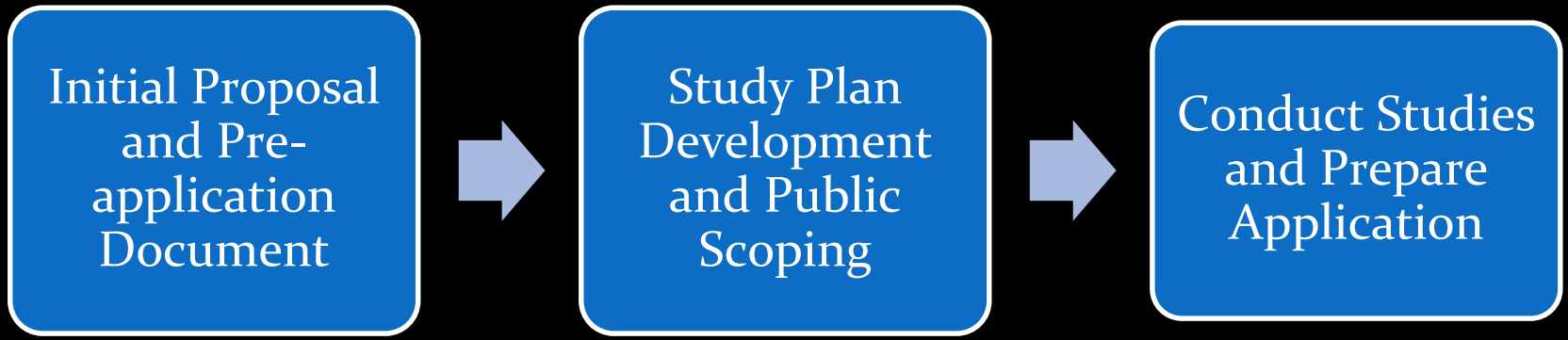
Key Provisions

- Equal consideration of energy and non power values (including fish, wildlife, recreation, cultural resources) - Federal Power Act
  - Section 10(a) - recommendations
  - Section 10(j) - Fish and wildlife recommendations
  - Sections 4(e) - mandatory conditions for land managing agencies
  - Section 18 - Fish way prescriptions
- Other key laws:
  - Clean Water Act
  - Endangered Species Act
  - Fish and Wildlife Coordination Act
  - National Historic Preservation Act
  - Wild and Scenic Rivers Act

Three Licensing Processes

Integrated	Alternative	Traditional
Default process	Can request this process; needs FERC approval.	Can request this process; needs FERC approval.
FERC involved early as decision maker/approves studies.	FERC provides assistance during studies but not approval.	No FERC involvement during study process.
Predictable schedule; strict deadlines.	Collaboratively determine schedule in pre-filing stage.	No set interim dates; paper-driven process.
FERC conducts NEPA; issues final order.	Applicant conducts NEPA in pre-filing; FERC conducts NEPA; issues final order.	FERC conducts NEPA; issues final order.

Pre-Filing Process Overview



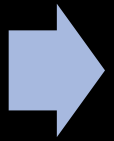
Tips for Study Requests

- Studies provide 90% or more of the record.
- Clearly explain the project nexus
- Study requests should help support development of Section 7 and license implementation measures.
- A study request should be reasonable and necessary in relation to the resource goals and management objectives, and methodology should be generally accepted practice.
- Work together with other participants
- Baseline is existing conditions today – not pre-dams

Post-Filing Process Overview

Application review, recommendations / conditions for protection, mitigation, and enhancement measures

FERC Environmental Review



FERC License Order

Conduct preliminary Section 7. Provide comments on additional analysis needed and recommendations/conditions.

Conduct final Section 7. Provide comments on the DEIS/DEA.

Information Gathering - ILP v. TLP v. ALP

- **Integrated/ILP** - pre-filing only; study plan development; FERC approves studies; some opportunities during study report phase

- **Alternative/ALP** - largely collaborative pre-filing; limited options post-filing

- **Traditional/TLP** - some pre-filing; can also request additional studies during post-filing

Tips for Successful Engagement

- Engage early and often
- Collaborate with other stakeholders, unified voice
- Build your record and substantial evidence
- Deadlines are important

Wild and Scenic Rivers Standards

How are hydropower (and other proposed projects) within a WSR corridor, or upstream, downstream or on a tributary to a WSR evaluated?

- Section 7 of the WSRA
  - Intent of Section 7
  - Standards for Section 7 evaluation
  - What types of information are used?
  - When and where does Section 7 apply?
  - Who makes decisions?
  - Issues, complicating factors, and watch-out situations
  - “Special Designations” and Hydropower exemption language in legislation

Intent of Section 7 of the WSRA

- Prohibits the licensing of new hydropower facilities
- Requires review of water resources projects that could affect the free-flowing condition of designated and study rivers
- Requires a written assessment of a how a project could affect river-related values, including free-flowing condition, ORVs, and water quality.
- Requires the river-administering agency (not the project proponent) to evaluate a project and make the Section 7 determination.

Eightmile River, Connecticut
(Tim Palmer)

When does Section 7 Apply?

Is the project a hydroelectric project licensed by the Federal Energy Regulatory Commission (FERC)?

"The Federal Power Commission [now known as FERC] shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, as amended, on or directly affecting any [designated WSR]…"

Standards for Section 7 Evaluation

Choose one of the four standards, based on project type and location:

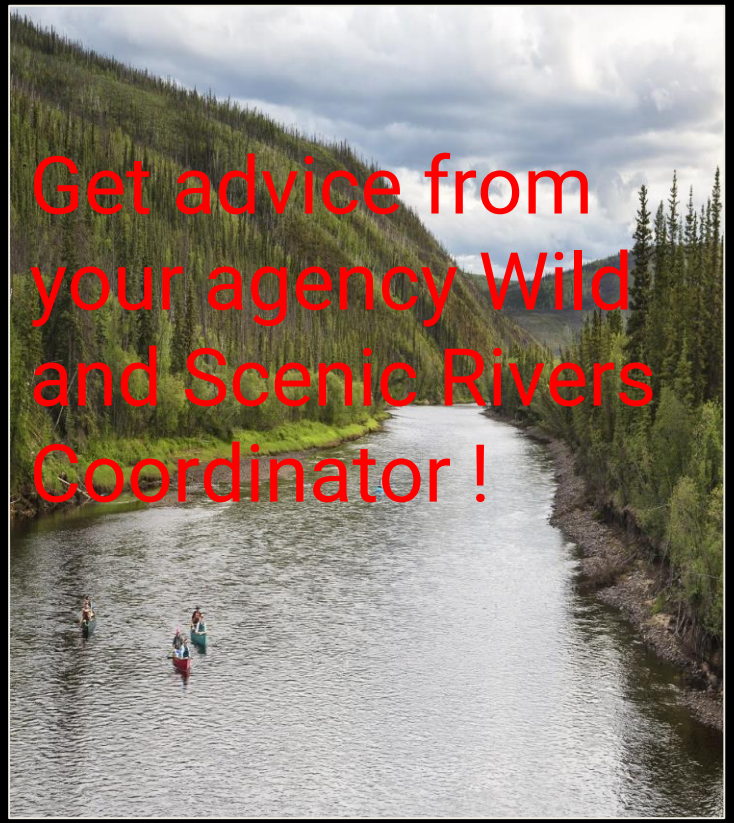
1 - On or directly affecting

2 - Direct and adverse effect

3 - Invade the area or unreasonably diminish

4 - Invade the area or diminish

Standards For Section 7 Evaluation



Standard 1 - On Or Directly Affecting

Prohibited by Section 7

- No new FERC authorized hydropower projects in a WSR corridor.
- Applies to all components - water lines, access roads, etc.
- Pipelines and some transmission not prohibited outright

Standards for Section 7 Evaluation

"Direct and Adverse" Standard

"…no department or **agency** of the United States **shall assist** by loan, grant, license, or otherwise in the **construction of any water resources project** that would have a **direct and adverse effect** on the values for which such river was established"

Standards for Section 7 Evaluation

Standard 2 - “Direct and Adverse Effect”

Is project located within a Wild and Scenic River (WSR) corridor, or Section 5(a) study area?

Then evaluate project under the “direct and adverse effect” standard. Determine effects on free-flowing condition, water quality and each outstandingly remarkable value. Use procedure outlined in Appendix C of Council’s technical report.

Standards for Section 7 Evaluation

Standard 2 - “Direct and Adverse Effect”

- No outright prohibition on Water Resources Projects
- Does not allow for “balancing” or weighing of one value over another

Standards for Section 7 Evaluation

"**Nothing** contained in the foregoing sentence shall **preclude licensing of, or assistance to, developments below or above** a wild, scenic or recreational river area or on any stream tributary thereto which will not **invade the area or unreasonably diminish** the **scenic, recreational, and fish and wildlife values** present in the area on the date of designation of a [WSR]."

Standards for Section 7 Evaluation

Standard 3 - Invade the area or unreasonably diminish

Is project located upstream, downstream or on a tributary to a designated WSR corridor?

Then evaluate the project under the "invade the area or unreasonably diminish" standard for WSRs. Determine encroachment (e.g., backwater) and effects on scenery, recreation, and fish and wildlife values present at time WSR was designated.

Standards for Section 7 Evaluation

Standard 3 - Invade the area or unreasonably diminish

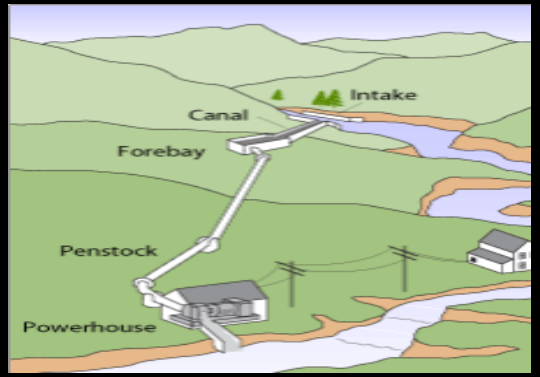
- Standard applies only to scenic, recreational, fish and wildlife values present at designation
- Invade = encroach or intrude upon
- Unreasonably diminish = detailed analysis, based upon resource baseline conditions and current trends

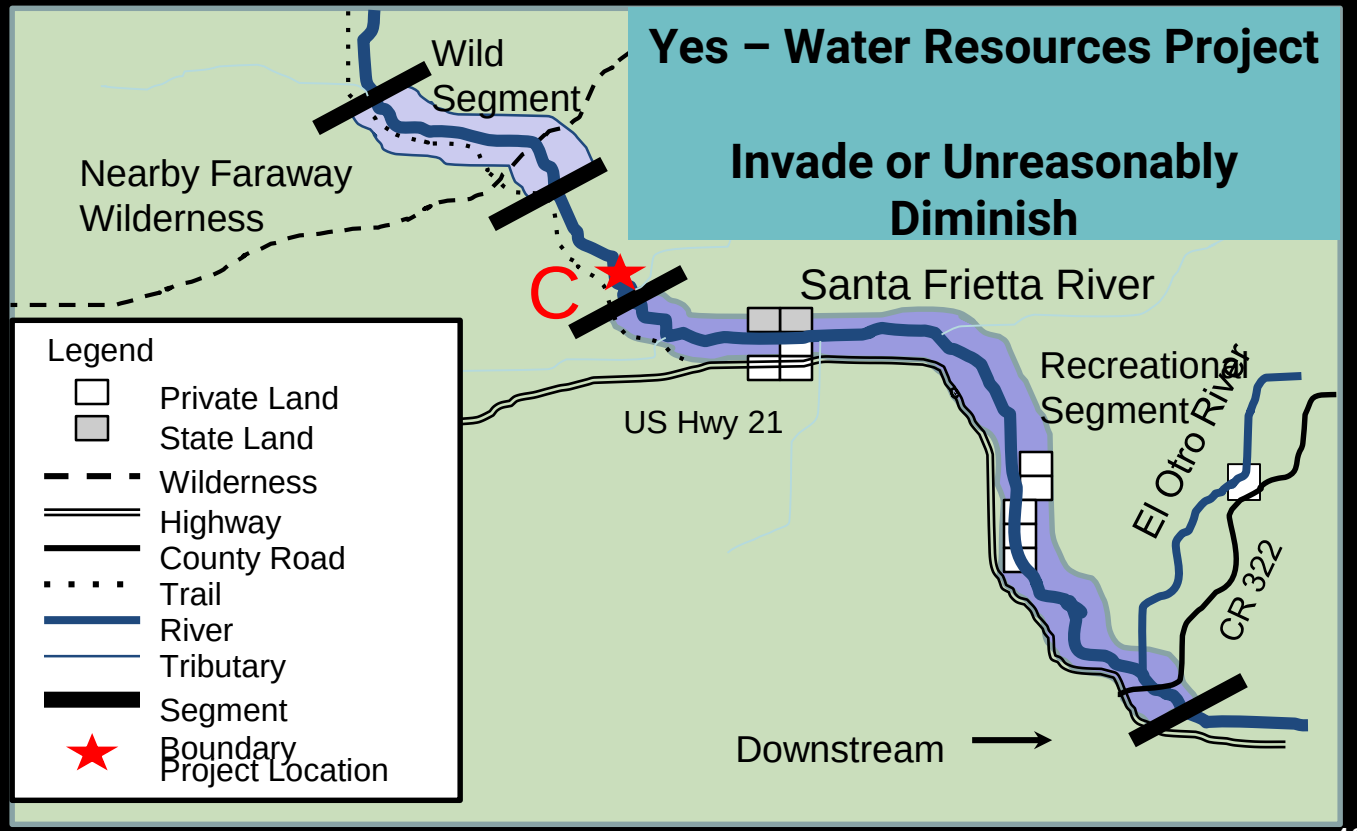
Standards for Section 7 Evaluation

Standard 4 - Invade or diminish

- Applies only to congressionally authorized Section 5(a) study or Section 2(a)(ii) recommended rivers
- Applies only to projects upstream, downstream, or on a tributary to the study corridor
- Applies to only to scenic, recreational, and fish and wildlife values
- The word “**unreasonably**” doesn’t modify “diminish,” providing greater protection

Scenario C


Intake
Canal
Forebay
Penstock
Powerhouse


Yes – Water Resources Project
Invade or Unreasonably Diminish
Wild Segment
Nearby Faraway Wilderness
C
Santa Frietta River
Recreational Segment
US Hwy 21
El Otro River
CR 322
Downstream
Legend
Private Land
State Land
Wilderness
Highway
County Road
Trail
River
Tributary
Segment
Boundary
Project Location

And now… a little more complexity!

- Some designations protect existing hydropower operations -this is neither universal nor consistent
  - Examples include language telling us that FERC/hydropower operations will have...
    - No impact on hydropower operations and maintenance
    - Does not impact or alter existing terms of permitting, licensing, or operation
    - More details about allowing modernization, upgrade, other changes subject to written determination by river management agency...

- What's the scale? (For example, micro-hydro NOT licensed by FERC might require you to dig a little deeper).

- What's the appropriate baseline for evaluation?

- Protection and enhancement measures can be licensed (re-licensing of projects is ongoing)
  - Subject to River Manager consistency determination (e.g., meet Section 7 standards)

- SO… check for exemptions, **ask for help**, this WILL take time, we're in an era of change.

Policy Issues and Challenges

- FERC's current interpretation that it cannot require protection, mitigation, and enhancement measures on Wild and Scenic Rivers
  - Project works
  - New construction
- Consequences of FERC's interpretation on
  - Wild and Scenic Rivers Act
  - Other agency authorities
- Potential for administrative/legal challenge
  - Opportunity for a declaratory order?
  - Perfect case?
  - How to prepare for a potential challenge?
  - Implications for spotty record on WSR Section 7s?
- Alternatives to implement improvements outside the FERC license
  - Enhancement funds? (Bond Falls?)
  - Other contractual commitments

Questions?

Resources - National Agency Contacts

	WSR **rivers.gov**	**HYDRO**
USFS	Steve Chesterton smchesterton@fs.fed.us	Vic Engel vengel@fs.fed.us Kellie Whitton kswhitton@fs.fed.us
NPS	Joan Harn Joan_Harn@nps.gov nps.gov/wsr	Joan Harn Joan_Harn@nps.gov nps.gov/hydro
BLM	Cathi Bailey c1bailey@blm.gov	Karen Montgomery k15montg@blm.gov
USFWS	Daniel_Haas@fws.gov	Frankie_Green@fws.gov

Tips for Getting Started with FERC

1. Get help early! Agency WSR & Hydro Leads
2. Locate the hydro project(s) that affect your river
   a. Identify hydro project boundary and WSR boundary
   b. Identify hydro-related provisions in river designation language
3. Read the most recent license order
4. Review key license requirements related to river values (e.g., Flow, Aquatic habitat, Fish passage, Recreation management, Shoreline management)
5. Figure out when relicensing begins and track the process timeline
   a. Subscribe to docket through FERC elibrary
6. File comprehensive river management plan with FERC
7. Build relationships with Licensee, Partners, Agency contacts & use their authorities

FERC Hydropower Projects on Wild and Scenic Rivers

Part 2 - Case Studies

Presenters

Session 2 - Case Studies

Moderator - Joan Harn, NPS River Programs Mgr, Conservation and Outdoor Rec.

Carmen - Smith - Kristen Bonanno, USFS Bonneville Power Administration Liaison & Lisa Machnik, USFS Deschutes Recreation, Heritage and Lands Staff Officer

Merced, Don Pedro - Jim Eicher, BLM Retired CA Field Office

Klamath, Potter Valley - Susan Rosebrough, NPS River Projects Mgr, Pacific West

Case Study Reflections - Richard Roos-Collins, Water Power Law Group, Principal

Resources - Joni Gore, NPS WSR Fellow

Carmen Smith Case Study

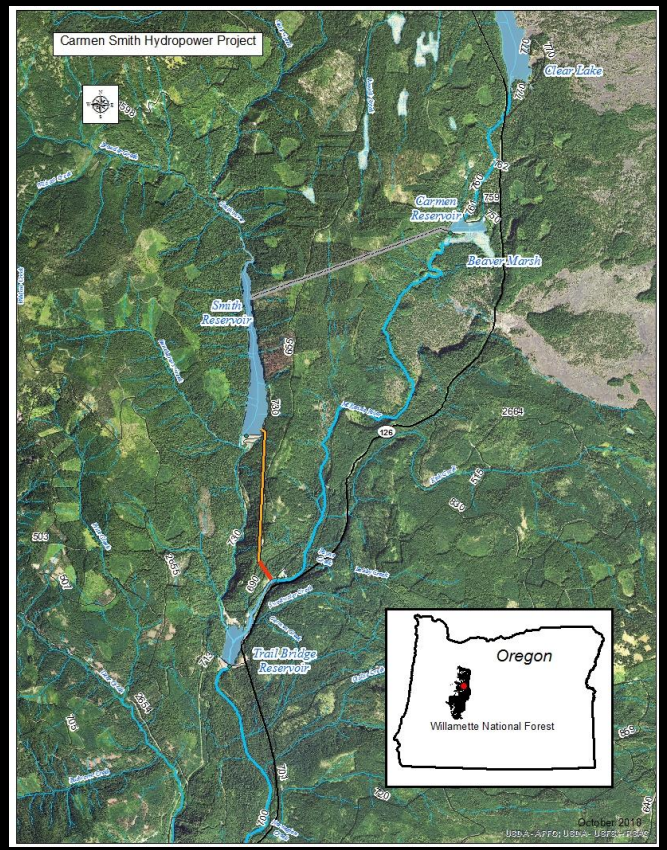
Kristen Bonanno, USFS Bonneville Power Administration Liaison

Lisa Machnik, USFS Deschutes Recreation, Heritage and Lands Staff Officer

Carmen Smith Project (P-2242)

1959 Project licensed
1963 Project begins operation

Carmen Smith Project (P-2242)



The Carmen Smith Project is located on the McKenzie River and occupies 574 acres of the Willamette National Forest in Oregon.

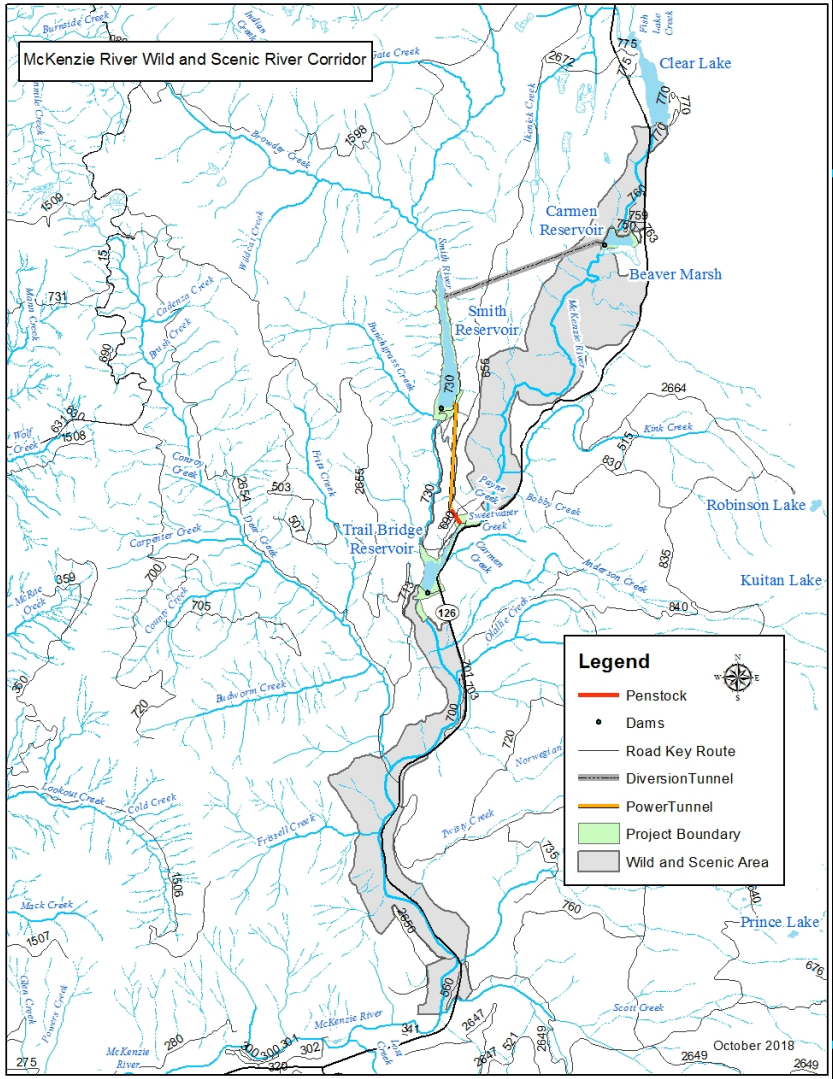
McKenzie Wild and Scenic River

Picture provided by Ray Riveria

Designated as a Wild and Scenic River in 1988
1992 Upper McKenzie WSR Management Plan approved

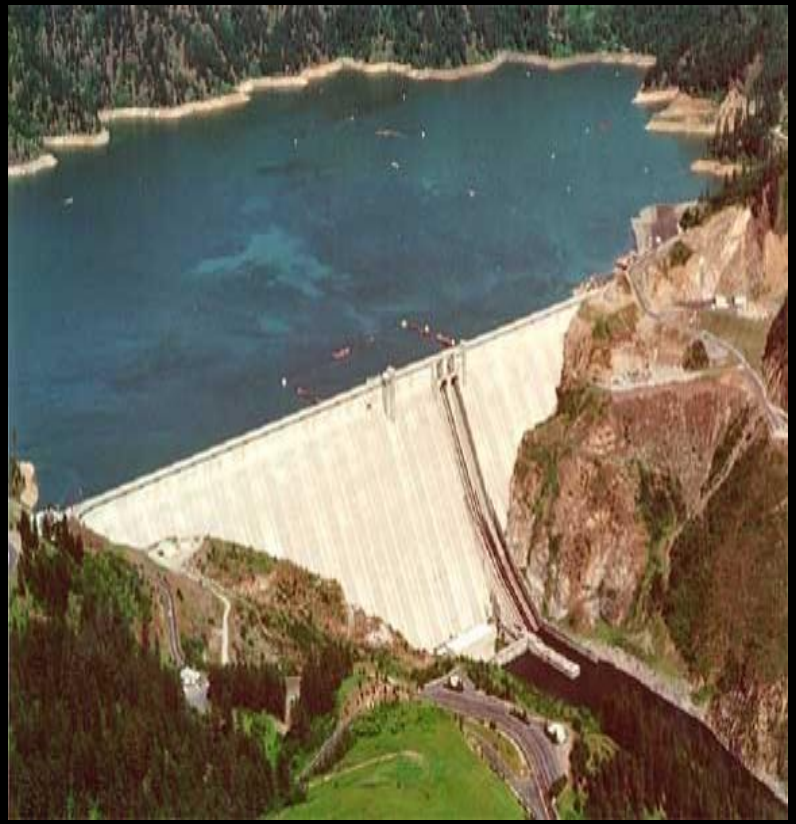
McKenzie Wild and Scenic River

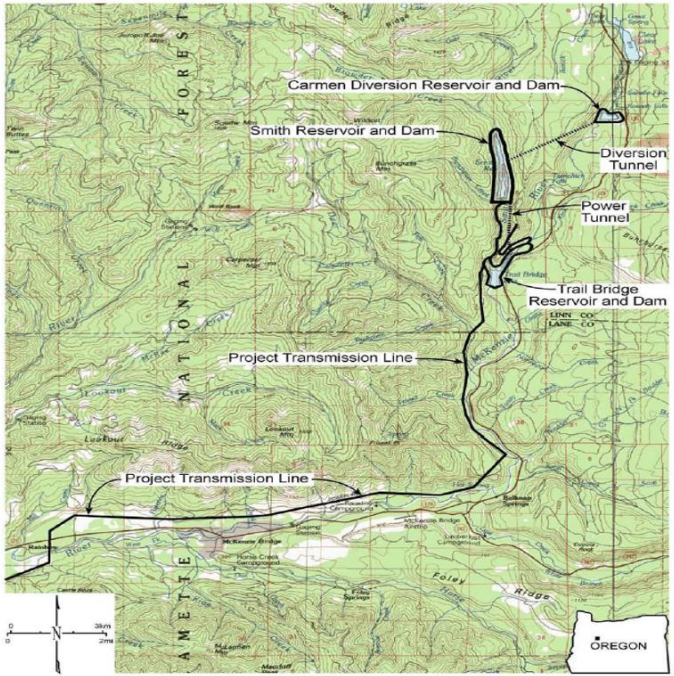
The Carmen Smith Project is upstream, downstream, within the corridor, in a tributary to the McKenzie Wild and Scenic River



Outstanding Remarkable Values

- Water quality - water clarity and color
- Scenery - waterfalls, whitewater, lava flows, old growth forests, wildflowers, fall colors
- Recreation- white water boating, fishing, hiking
- Fish - Bull trout, Spring Chinook, cutthroat, rainbow trout
- Geologic and hydrologic resources - they offer an outstanding interpretive opportunity




Carmen Diversion Reservoir and Dam
Smith Reservoir and Dam
Diversion Tunnel
Power Tunnel
Trail Bridge Reservoir and Dam
Project Transmission Line
Project Transmission Line
OREGON

Licensing Process

August 2003 - EWEB files notice of intent

September 2003 - Forest Service conducted an existing information analysis

December 2003- Forest Service filed study requests with FERC

Relicensing Studies

Forest Service requested two modifications to EWEB's Recreation Study based on the management requirements of the WSR Plan.Instream Flow - whether

Habitat Availability

Flow fluctuations

Fish Stranding

Aquatic Habitat

Hydrogeomorphology

Aquatic Protection, Mitigation and Enhancement Measures

Fish Passage

Fish Population Abundance

Fish entrainment

RECREATION

WILDLIFE

Cultural Resources

Key Resource Issues

- Instream flow

- Endangered Species Act listed fish - Bull trout (threatened), Chinook salmon (threatened) and cutthroat trout (fish ORV)- fish passage, spawning habitat, ramping

- Recreation- campground improvements, whitewater rafting parking, dispersed site closures

Licensing Process (cont.)

November 2006- EWEB submitted final license application

Shortly after EWEB filed its final license application,
the Forest Service together with EWEB and 15 other parties spent next two years working to reach agreement on all the mitigation measures necessary to relicense Carmen Smith..

It was signed and filed with FERC in **October 2008**.

The value of the settlement was approximately $230 million.

Mitigation Measures

- Construction of a Trail Bridge dam **fish ladder**, trailrace barrier and **downstream fish bypass system**, temporary and permanent roads for construction and maintenance
- Improvement or replacement of **recreation facilities** near Trail Bridge, Carmen diversion reservoirs and Ice Cap Creek Campground
- Rehabilitation of **dispersed use site** at Ice Cap Creek and three dispersed use sites at Fish Ladder Rapids, conversion of the Fish Ladder Rapids to small **parking lot** for whitewater boaters and maintenance of a Peggy Creek Road dispersed use area
- Relocation of a 115-kv **transmission line**
- Installation of a gage in LCB
- Gravel placement in several locations
- Wildlife mitigation fund

WSR Section 7 Determination

When did Sec 7 occur in the licensing process?

- The preliminary Section 7 Determination was filed at the same time as the Forest Service's preliminary FPA 4(e) mandatory conditions. It was finalized 60 days after the EA was issued, revised again to reflect the corrected boundary and the Restated and Revised Offer of Settlement.

Was it supported by information in the studies?

- Yes

Was Section 7 linked to mandatory conditions?

- It evaluated all the mandatory conditions in the WSR corridor and the conditions were developed to mitigate Project impacts to the WSR.

Policy Issues

*In March 2012, FERC signaled to the settlement parties that it would potentially omit 20 mitigation measures from the new Project license because of its interpretation of the WSRA.

> *Because the Wild and Scenic River Act bars the Commission from licensing construction activities in the Wild and Scenic River Corridor, these measures are not within the Commission's proposed action.*

*The WSR boundary was not correctly drawn.

After the boundary was corrected… there were 9

Transmission line replacement

Relocation of existing **pressure transducer**

Gravel in Upper Carmen bypassed reach

200 to 1,000 tons of **gravel** in Lower Carmen bypassed reach and LWD

Use of existing **roads**

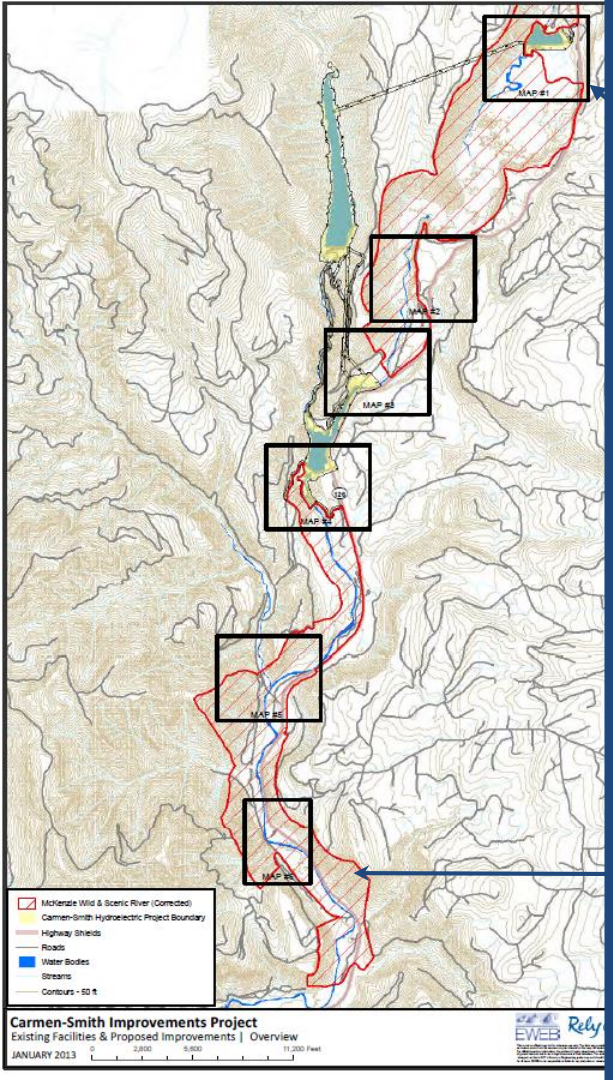
Rehabilitation of Ice Cap Creek **Campground**

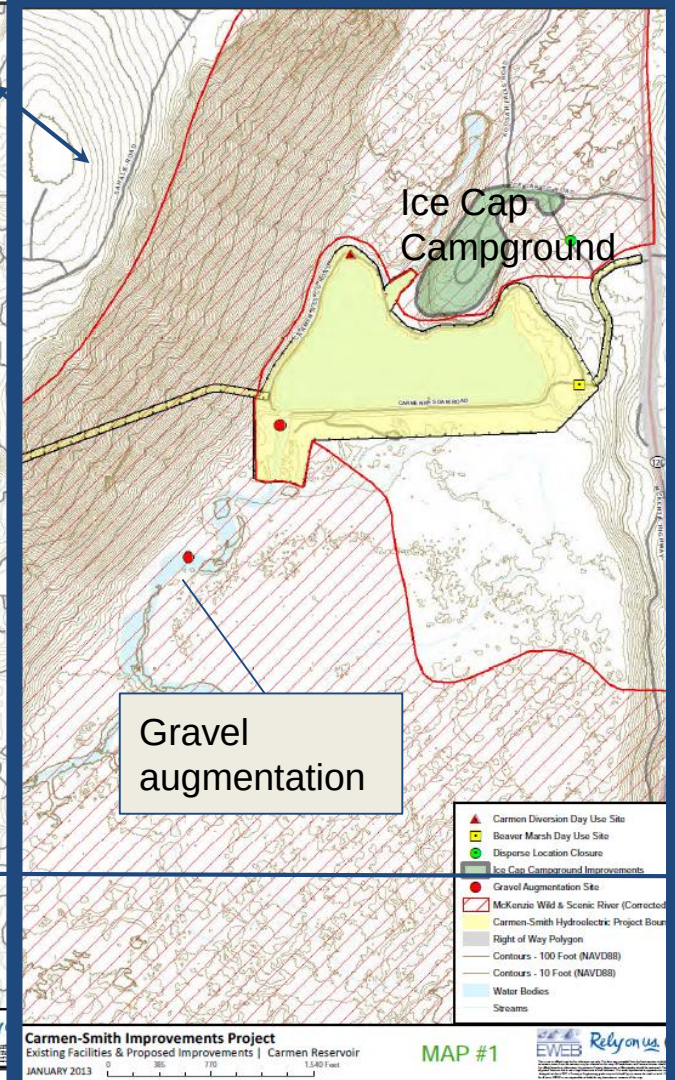
Closure and rehabilitation of **dispersed use site**

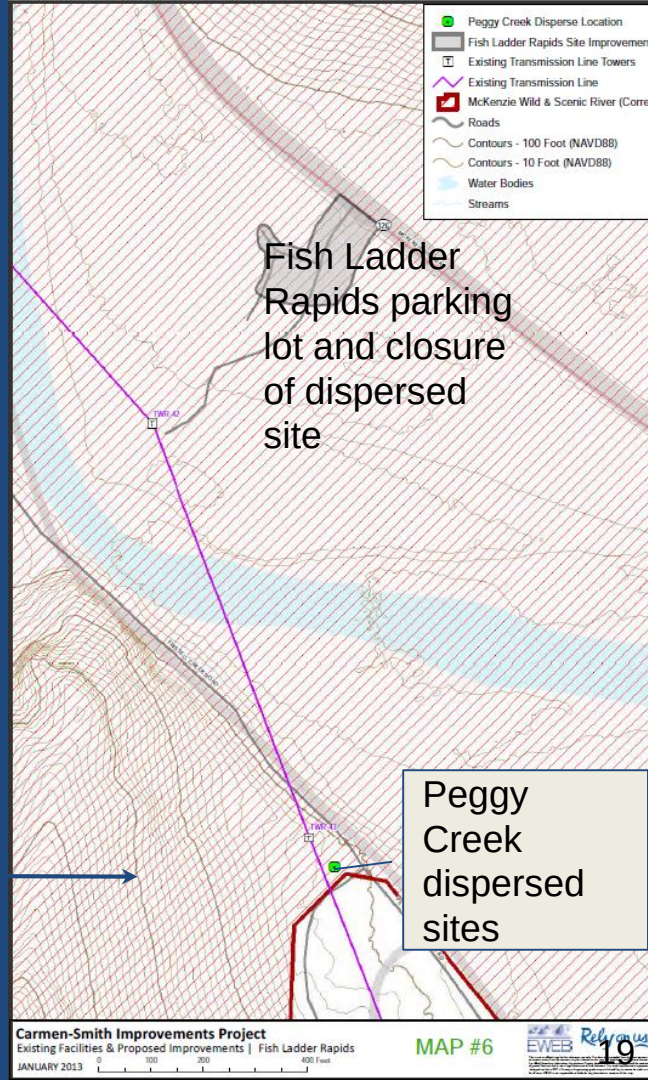
Maintenance of Peggy Creek Road **dispersed use area**

Closure of Fish Ladder Rapid **dispersed use area** and conversion to **parking area** for whitewater boaters

- Gravel in the Upper Carmen bypassed reach
- Gravel in Lower Carmen bypassed reach
- Relocation of McKenzie River Trail
- Rehabilitation of Ice Cap Campground
- Closure of one dispersed use area at Fish Ladder Rapids and conversion to parking area


MAP #1
MAP #2
MAP #3
MAP #4
MAP #5
MAP #6
McKenzie Wild & Scenic River (Corrected)
Carmen-Smith Hydroelectric Project Boundary
Highway Shields
Roads
Water Bodies
Streams
Contours - 50 ft
Carmen-Smith Improvements Project
Existing Facilities & Proposed Improvements | Overview
JANUARY 2013


Ice Cap Campground
Gravel augmentation
Carmen Diversion Day Use Site
Beaver Marsh Day Use Site
Disperse Location Closure
Ice Cap Campground Improvements
Gravel Augmentation Site
McKenzie Wild & Scenic River (Corrected)
Right of Way Polygon
Contours - 100 Foot (NAVD88)
Contours - 10 Foot (NAVD88)
Water Bodies
Streams
Carmen-Smith Improvements Project
Existing Facilities & Proposed Improvements | Carmen Reservoir
JANUARY 2013
MAP #1


Peggy Creek Disperse Location
Fish Ladder Rapids Site Improvement
Existing Transmission Line Towers
Existing Transmission Line
McKenzie Wild & Scenic River (Corre
Roads
Contours - 100 Foot (NAVD88)
Contours - 10 Foot (NAVD88)
Water Bodies
Streams
Fish Ladder Rapids parking lot and closure of dispersed site
Peggy Creek dispersed sites
Carmen-Smith Improvements Project
Existing Facilities & Proposed Improvements | Fish Ladder Rapids
JANUARY 2013
MAP #6

Wild and Scenic Rivers Act Section 7(a)

The Commission “shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act…on or directly affecting” any designated Wild and Scenic Rivers System.

“Project works” mean “the physical structures of a project.”

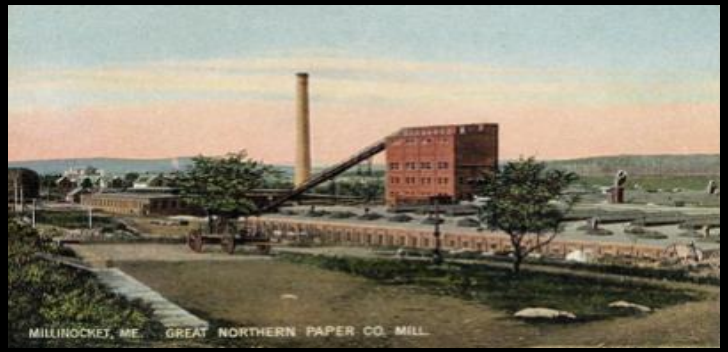
16 U.S.C. § 796

Project – means complete unit of improvement or development, consisting of a power house, all water conduits, all dams and appurtenant works and structures (including navigation structures) which are a part of said unit, and all storage, diverting, or forebay reservoirs directly connected therewith, the primary line or lines transmitting power therefrom to the point of junction with the distribution system or with the interconnected primary transmission system, all miscellaneous structures used and useful in connection with said unit or any part thereof, and all water-rights, rights-of-way, ditches, dams, and reservoir, lands, or interest in lands the use and occupancy of which are necessary or appropriate in the maintenance and operation of such unit…

16 U.S.C. § 796

- FERC orders have interpreted "project works" to mean the physical structures used for power generation. *Great Northern Paper, Inc.*, 96 FERC ¶ 62, 117 n.7 (2001).

- In other words, does the feature contribute to the generation and transmission of hydropower?



Past practices

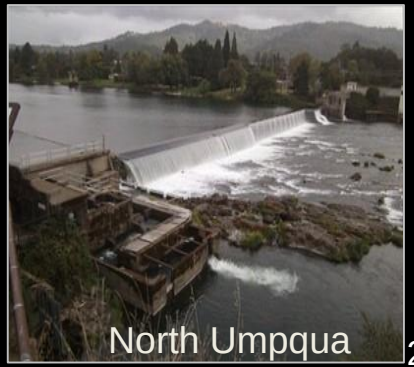
Clackamas
- Construction of boating access sites

Pelton Round Butte
- Campground maintenance and construction
- Gravel study and potential augmentation

North Umpqua
- Habitat improvement
- Gravel augmentation


Clackamas


Pelton Round Butte


North Umpqua

How the Forest Service responded to FERC's 2012 letter

- Withdrew Section 4(e) measures FERC identified in its letter as being in the corridor.

- Agreed to issue a special use authorization for the measures withdrawn from FPA Section 4(e) filing.

- The Settlement Agreement required the Project owner to do the mitigation measures whether or not FERC required them in the license.

- FS negotiated to have the measures left out of the license completed by EWEB prior to the license issuing.

Licensing Process (continued)

March 2012 - FERC issues letter stating concerns about not including certain WSR measures in the Project license

March 2013 - Forest Service submits revised Section 7 Determination

June 2013 - Forest Service submits another revised Section 7 Determination

December 2016 - Settlement Parties file Amended and Restated Offer of Settlement with FERC

July 2017 - Forest Service submits the final, for real final Section 7 Determination and Section 4(e)s

October 2018 - still waiting for FERC to issue a license

Practitioner tips

- Prepare an Existing Information Analysis to determine what studies you need to request.
- Request studies, if necessary, to identify project impacts to the WSR.
- File preliminary Section 7 with preliminary mandatory conditions (if you have them)
    - See which ones FERC does not like.
    - Make a determination of “direct and adverse effect” or “invades the area or unreasonably diminishes the ORVS of the WSR.”
- Provide very good maps of where the mitigation measures are relative to the WSR corridor.
- If you don’t have mandatory conditioning authority, still file preliminary Section 7 Determination at the same time, along with 10(a) recommendations.
- If possible, enter into a settlement agreement with the project owner and include language whereby the project owner will still do any mitigation measures that FERC leaves out of the project’s license.
- **DON’T MISS FERC DEADLINES**

Here's some of the work done because of Section 7

Above: 500 tons of new gravel in McKenzie River upstream of Trail Bridge Reservoir

Right: Dispersed camp closure

Left: Newly installed USGS gage on Smith River between Trail Bridge and Smith Dam

Below: Ice Cap Campground Improvements

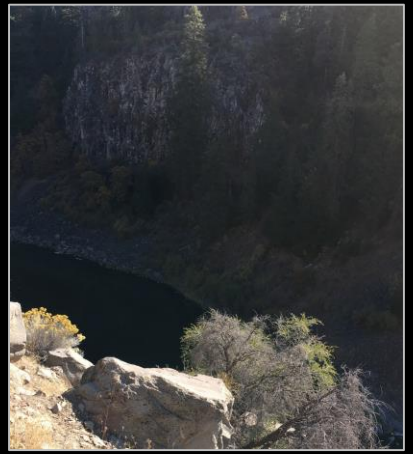
Klamath and Eel Case Studies

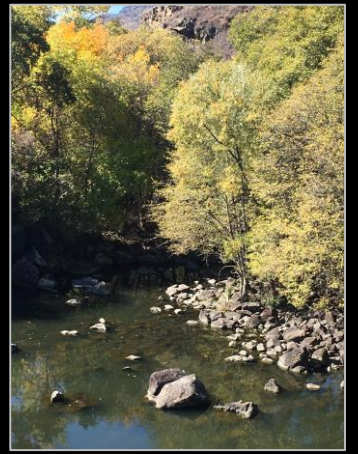
Susan Rosebrough, NPS River Projects Manager, Pacific West

Klamath River

Photos by Tim Palmer

Klamath River Hydroelectric Project (P-2082)





Photos by NPS

Location of the hydro projects and WSRs

Outstandingly Remarkable Values

- California segment - anadromous fish
- Oregon segment - Fish, Recreation, Scenic, Cultural, Wildlife, Vegetation.

Salmon swimming upstream

Rafting the Hells Corner Section (Bob Wick)

Key Issues

- Resource Issues
  - Anadromous fish
  - Water quality
  - Dam removal
  - Instream flows
  - Cultural resources
  - Recreation resources
  - OR segment - licensing peaking flow regime benefited whitewater boating and harmed other river values

Left: Protests (Patrick McCully)

Below: Algae Blooms (NPS)

Protection, Mitigation, Enhancement Measures

- Fish passage
- Gravel Augmentation
- Flows in the bypass reach and downstream river reaches
- Water quality management plan
- Recreation flow releases, access sites, and trails

Klamath River (NPS)

Licensing Process Timeline

- December 2000 - PacifiCorp Files a Notice of Intent to File a License Application
- 2001 - 2002 -WSR Administering agencies met and developed joint criteria
- April, 2003 - WSR Agencies submitted informal information request to PacifiCorp/Collaborative Group
- February 2004 - PacifiCorp Files Final License Application
- March, 2006 - Agencies file Recommendations, Terms and Conditions
- October 2006 - Trial Type Hearing and Alternatives Submitted
- September 2006 - Draft EIS released
- September 2006- Administrative Law Judge decision on trial type hearing
- 2006 - License Expired
- November 2006 (CA segment) and January 2007 (OR segment) -Preliminary Section 7 Determination
- January, 2007 - Revised terms and conditions

Criteria for WSR Sec. 7 Analysis

Standard: Invade or unreasonably diminish

- **Fish:** Instream flow regime and ramping rates, Water temperature conditions, Water quality parameters, Sediment regime and substrate quality, and Anadromous salmonid species abundance
- **Recreation:** Whitewater Boating, Recreational Fishing, Recreational setting
- **Scenic:** Water Flow Character (river flows and accompanying river width, depth and channel inundation or exposure); Water Appearance (clarity/turbidity, color, depth of view, and prominence of algae); Fish and Wildlife Viewing; Riparian Vegetation
- **Wildlife**: Changes in habitat for special status species

Klamath River (Bob Wick)

Licensing process and Section 7

- Administering agencies convened early
- Determined key criteria to evaluate the effects
- Shared information needs with licensee
- Utilized information from studies, environmental document, and other sources for Section 7
- Challenge: Very limited baseline data!

Data is limited for 1981 conditions, so the analysis utilizes the best available information .... In many cases, a conclusion regarding the effects relative to 1981 baseline conditions was not possible.

Top: (USFWS); Below: (NPS)

Licensing Process Timeline Cont.

- January, 2007 - Revised terms and conditions
- February 2010 - Settlement Agreement for Dam Removal and Restoration Reached
- Fall 2010 - Shared WSR criteria with Bureau of Reclamation and stakeholders
- September 2011 - Bureau of Reclamation Draft EIS on Dam Removal/Secretary Determination
- February 2012 - Section 7 Determination on Dam Removal
- February 2016 - Revised Settlement Agreement
- June 2018 - Klamath River Renewal Releases Definite Plan for Dam Removal
- TBD - Final Section 7
- 2021 - Dam removal

Key Issues

- Anadromous fish
- Water quality
- Sediment
- Restoration post dam removal
- Cultural sites under reservoirs
- Change in recreation use and access/replacement runs for boaters
- Homeowners on Copco

Dam Removal and Section 7

- Utilized similar criteria
- Shared criteria for WSR and need for evaluation for other eligible/NRI streams
- Participated on EIS/R team
- Evaluated Restoration agreement and dam removal agreement
- Utilized past Section 7, EIS/R
- Standard: invade or unreasonably diminish
- Positive Determination 2012
- Revised dam removal plan and Section 7 - coming!

Basalt Columns above Klamath River/ Copco Bypass reach, (NPS)

Overall Lessons Learned

- Start early
- Baseline data was limited and challenging to develop
- Developing criteria helpful to get on the same page and communicate
- Start developing determination before NEPA document is developed
- Plan plenty of time for reviews, briefing leadership, obtaining signatures

Klamath River (BLM)

Eel River

Photos by Tim Palmer

Potter Valley Project (P-77)

Van Arsdale and Scott Dams (Potter Valley Project)

Location of hydro project and WSR

Study Process Timeline

June 2017 - NOI to File a License and Scoping Document

August 2017 - NPS Comments and Study Requests

September 2017 - Proposed Study Plan Released

December 2017 - BLM and NPS Submit Comments on WSR Study Needs

January 2018 - Revised Study Plan Study Published

February 2018 - NPS submits comments on WSR Study Needs

February 2018 - FERC Study Plan Determination

March 2018 -NPS submits comments on Study Plan Determination

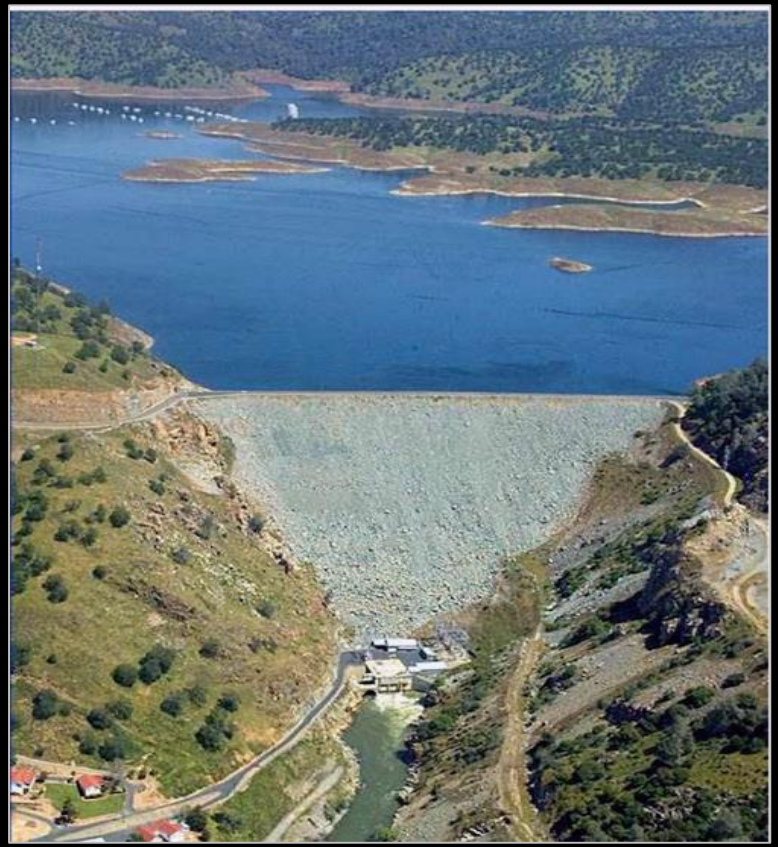
Merced River and Don Pedro Case Studies

Jim Eicher, (BLM Retired) Mother Lode Field Office, CA

Location of Projects

Merced River

Merced River Project (P-2179)

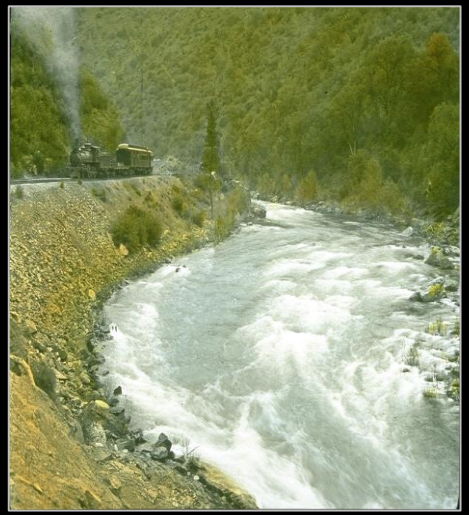


Outstandingly Remarkable Values

BLM Segment -Cultural, Wildlife, Recreation, Vegetation, Geologic

Two designated ACEC's for Merced River (Merced Serpentine Soils and Rare Plants, Limestone Salamander)

Proposed Merced River Wilderness Study Area



Outstandingly Remarkable Values

BLM Segment ORV'S- Vegetation, Geologic.

Key Issues

- Raising Spillway Dam 10 feet
- Inundates Existing Wild and Scenic Boundary (3200 FEET OR 6/10 OF A MILE)
    - Detrimental Impacts to existing ORV’s
    - Inundation of habitat for rare and endangered plants and wildlife
    - Reduction of existing whitewater boating miles
    - Cultural sites inundated

Wild and Scenic and Licensing Process Timeline

- Merced Wild and Scenic Designation in 1987 and another 8 mile segment was added in 1992
- The Merced Irrigation District (MID) filed a Notice of intent (NOI) to File License Application for a New License and Pre-Application Document (PAD); The notice was issued on January 5, 2009.
- BLM files comment letter to PAD and SD1 requesting FERC to place the raising of the Dam Spillway to be in the Alternatives Considered But Eliminated From From Further Analysis because it violates the Wild and Scenic Rivers Act. March 9, 2009
- Merced Irrigation District Files Final License Application (Raising of the Spillway was not included in MID's filing)
- BLM Filed Preliminary PM&E's July 2014

  Merced ID filed Alternatives Submitted to BLM's Final PM&E's - August 2014
- BLM filed Modified Recommendations, Terms and Condition All but 7 Alternatives were resolved July 2015

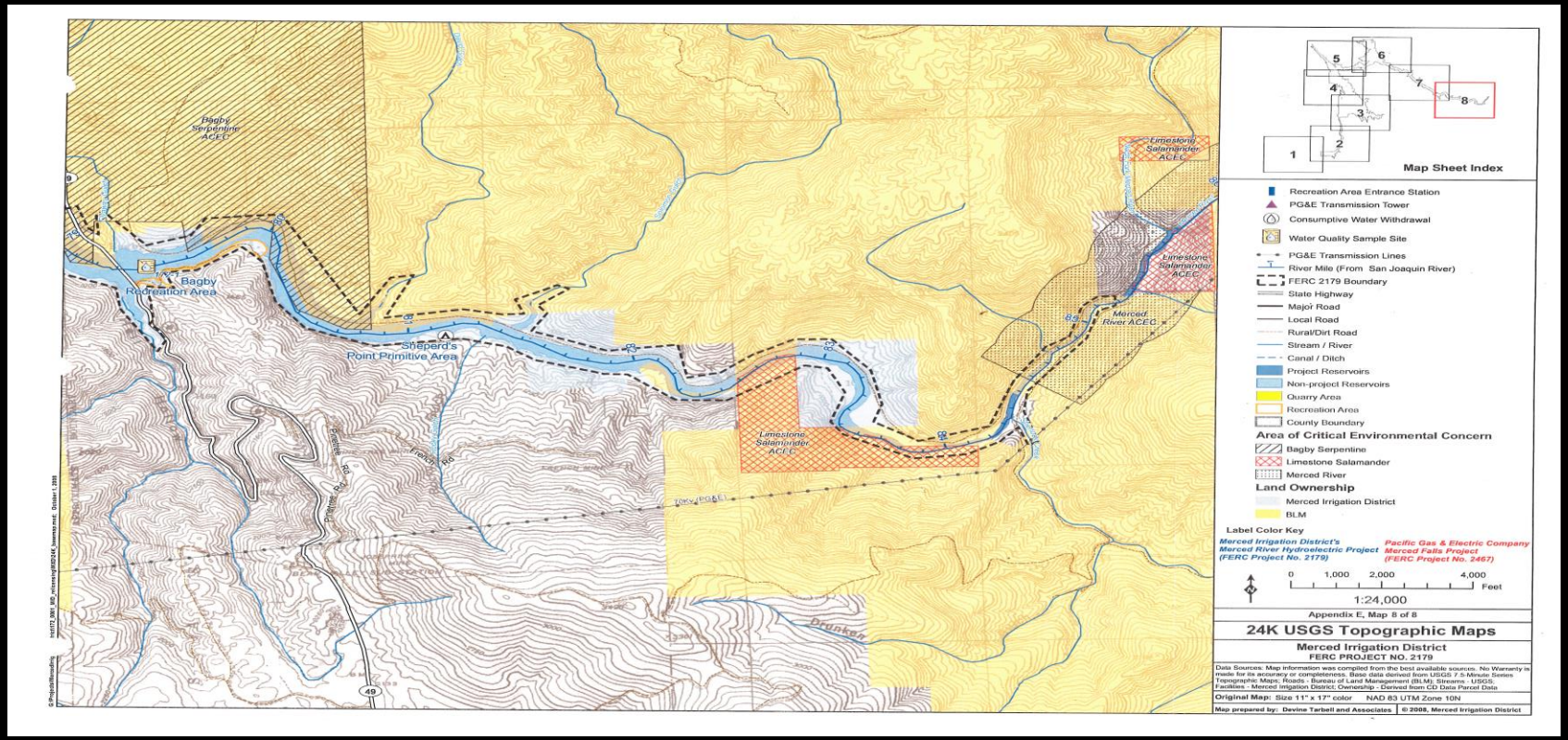
Section 7 - On or directly affecting

"The Federal Power Commission [now known as FERC] shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, as amended, on or directly affecting any [designated WSR]…" "and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration".

Prohibited by Section 7

- No new FERC authorized hydropower projects in a WSR corridor.
- As noted in the §7 section of the Wild & Scenic Rivers Reference Guide: Federal Assistance is described as "Any assistance by an authorizing agency before, during, or after construction. Such assistance may include but is not limited to: a license, preliminary permit, permit, or other authorization granted by FERC…"

Map of Inundation of Reservoir from 10 foot Rise of Spillway



Legislative Actions

House Bill – HR 2578 Amends the existing boundary to extend to the FERC Project Boundary. Decreases Wild and Scenic River length. (June, 2012) INTRODUCED, NO FURTHER LEGISLATIVE ACTION.

House Bill – HR 934 Amends the existing boundary to extend to the FERC Project Boundary. (March, 2013) INTRODUCED NO FURTHER AMENDMENTS. NO FURTHER LEGISLATIVE ACTION.

Section 7 Determination

Section 7 Determinations were not conducted because FERC did not continue to consider the Spillway Raise Project Proposal. BLM had sent a clear message in our filing that analyzing this project as proposed would violate the Wild and Scenic Rivers Act.

Don Pedro Project (P-2299)

Tuolumne Wild and Scenic River empties into Don Pedro Reservoir

Don Pedro Reservoir

Outstandingly Remarkable Values

Tuolumne Wild and Scenic ORV Values – Scenic, Cultural, Recreational, Fisheries, Plants, Wildlife.

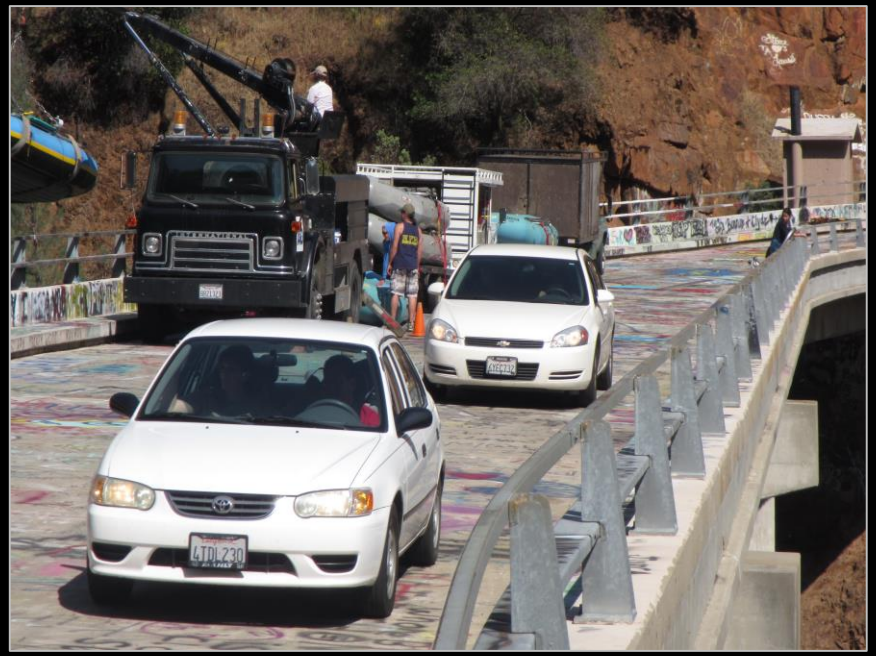
Project Issues

Project boundary is down stream of the Tuolumne Wild and Scenic River Boundary. Potential resource impacts occurs at high pool when the Don Pedro reservoir is full.

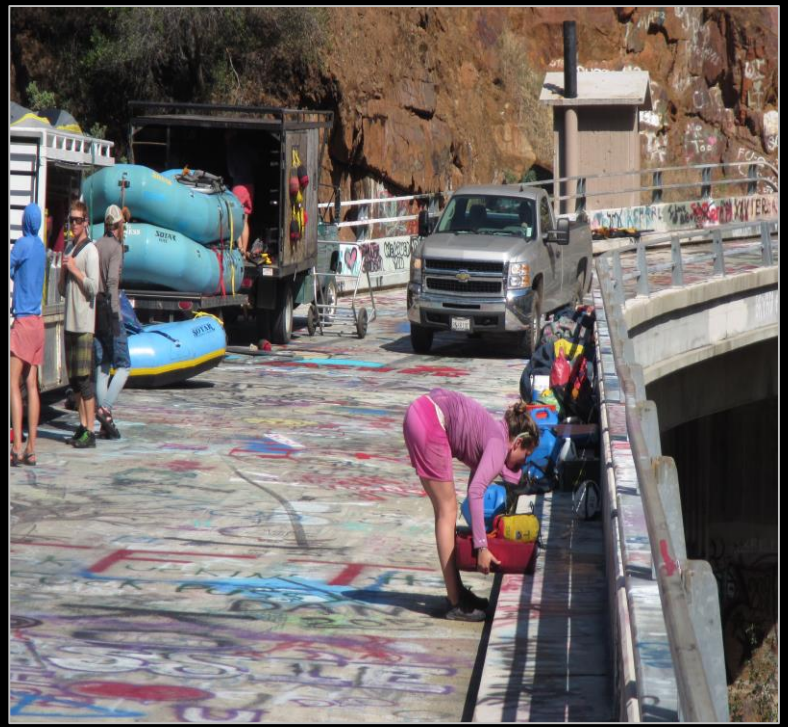
- Motorized vessels enter illegally into W&S boundary.
- Log debris blocks navigability for boaters.
- Take out is unsafe for all boaters and other recreationists due to erosion of the the takeout foot print. This is caused by ramping up and down of the reservoir. Up to 100 foot of ramping elevation change occurs annually. Currently Outfitters boom off a bridge and it provides an unsafe situation for the public.
- Proposed NOAA Fishery Screen – May require a Section 7 Determination

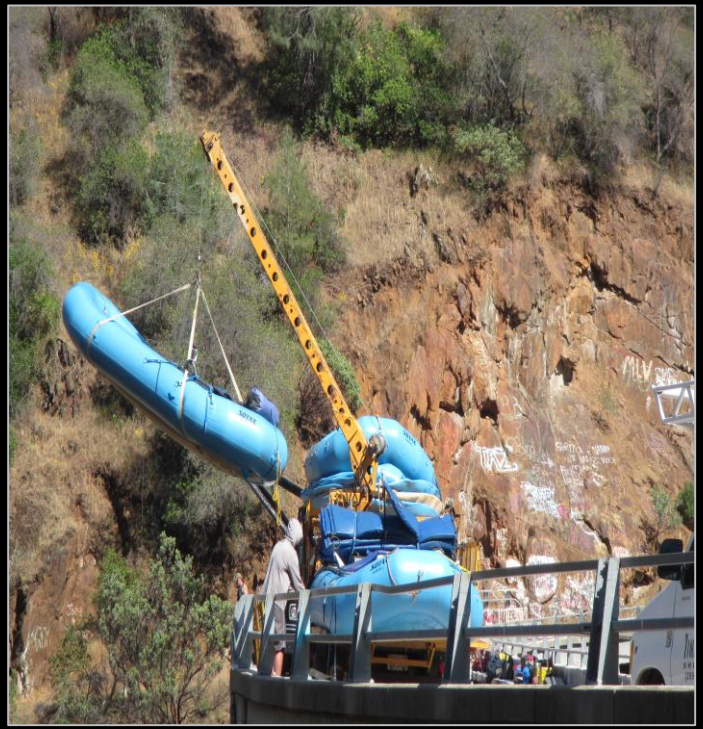
Wards Ferry Takeout

Wards Ferry Takeout



Unsafe for vehicles and the public





Filings

FLA Issued by MID and TID (10/2017)

Preliminary PME's filed by BLM (January, 2018)

Districts filed for Trial Type Hearing (February, 2018)

NGO's, Agencies, and Licensees are working on resolution

BLM nor USFS conducted a Section 7 determination on effects of project on the ORV's or free flow. Project was prior to W&S designation

Reflections on Case Studies

QUESTIONS?

Resources - National Agency Contacts

	WSR **rivers.gov**	**HYDRO**
USFS	Steve Chesterton smchesterton@fs.fed.us	Vic Engel vengel@fs.fed.us Kellie Whitton kswhitton@fs.fed.us
NPS	Joan Harn Joan_Harn@nps.gov nps.gov/wsr	Joan Harn Joan_Harn@nps.gov nps.gov/hydro
BLM	Cathi Bailey c1bailey@blm.gov	Karen Montgomery k15montg@blm.gov
USFWS	Daniel_Haas@fws.gov	Frankie_Green@fws.gov

Resources - Online Material

FERC & WSRs

- GIS Database (coming soon)
- RAPID toolkit - WSR Section 7
- Interagency WSR Council - WSR Section 7

FERC Process

- FERC Citizen Guide
- RAPID toolkit: Federal Hydropower Permitting Process

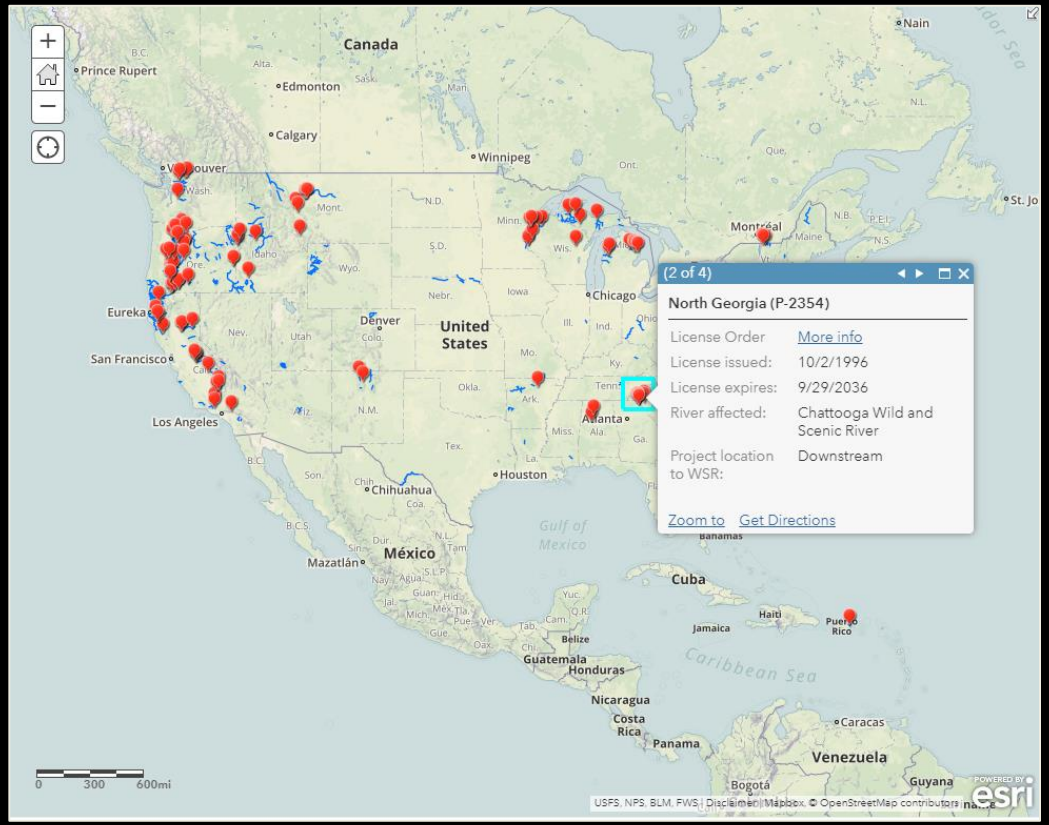
Hydropower Reform Coalition - hydroreform.org

- Activist's Prep Guide
- Citizen Toolkit for Effective Participation in Hydropower Licensing

Resources - FERC & WSRs

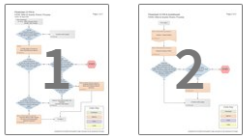
GIS Database (coming soon)

- Shows 79 FERC hydropower projects near Wild and Scenic Rivers
- Includes information and links related to project, WSR, Section 7, etc.
- May publish to rivers.gov, ArcGIS Online - TBD



Resources - FERC & WSRs

FERC - Wild and Scenic Rivers Act Section 7 Review Process



- 17.1 to 17.3 – Will the Proposed Project Be Located Within an Area Subject to the Wild and Scenic Rivers Act?
- 17.4 - Is the Project Located On or Will the Project Directly Affect a Wild and Scenic River Corridor or Section 5(a) Study Area?
- 17.5 – Will the Project Involve Construction of FPA Part 1 "Project Works" Such as a Dam, Water Conduit, Reservoir, Powerhouse, or Transmission Line?
- 17.6 – Does the Project Involve Relicensing, Amending a License or Issuing an Exemption for an Existing Hydropower Project or the Construction of Non-Project Works?
- 17.7 – Evaluate Project Under the "Direct and Adverse Effects" Standard
- 17.8 to 17.9 – Is the Project Located on a River Below, Above or On a Tributary to a Wild and Scenic River Corridor or Section 5(a) Study Area?
- 17.10 – Evaluate Effects Under "Invade the Area or (Unreasonably) Diminish" Standard
- 17.11 – Section 7 Determination
- 17.12 to 17.13 – Transmit Finding to FERC
- 17.14 to 17.16 – Does the Secretary Suggest any Measures to Meet WSR Standards?

– Section 7 Flowchart & Sample Determinations

Section 7 Flowchart — The Council has developed a flowchart to guide practitioners in determining whether a project proposal is a water resources project subject to Section 7. The flowchart identifies agency roles, references the appropriate evaluative standard in the Council's Section 7 technical report, and contains end notes that provide additional explanatory information. The flowchart does not cover hydropower project activities regulated by the Federal Energy Regulatory Commission (FERC) under Part 1 of the Federal Power Act. For FERC hydropower project activities, please see the **U.S. Department of Energy RAPID Toolkit**.

Section 7 Flowchart

The Council's January 2011 flowcharts are archived and available upon request.

Section 7 Determination Examples — In response to requests from river program managers, Council members have selected examples of Section 7 determinations for common types of water resources projects. Each is an actual determination made by river-administering agency staff from across the country. In some cases, clarifying user notes are included in individual determinations. No single example is best; however, in reviewing the range of examples provided, the practitioner will gain an understanding of how to apply the procedures outlined in the technical report.

Also, don't forget to make use of ***The Wild & Scenic Rivers Act: Section 7 (563 KB PDF)***. This paper describes the standards and procedures used in evaluating the effects of proposed water resources projects and is found in the Council White Papers section.

Introduction to Section 7 Examples (1.04 MB PDF)

Hydropower Licensing

A. Klamath Project
   1. **Section 7 Determination Transmittal Letter (717 KB PDF)**
   2. **Klamath River Section 7 Map (285 KB PDF)**
   3. **Klamath River Hydropower Project Section 7 Report (441 KB PDF)**
   4. **Klamath River Hydropower Project Section 7 Determination (2.49 MB PDF)**

B. Hells Canyon Complex Project
   1. **Hells Canyon Hydropower Project Section 7 Determination & Report (268 KB PDF)**

C. North Umpqua Project
   1. **North Umpqua Hydropower Project Section 7 Determination on License Application (3.25 MB PDF)**
   2. **North Umpqua Hydropower Project Section 7 Determination on Draft EIS (634 KB PDF)**
   3. **North Umpqua Hydropower Project Section 7 Determination on Final EIS (727 KB PDF)**

Hydro RAPID toolkit - WSR Section 7

Interagency WSR Council - WSR Section 7

Resources - FERC Process & HRC

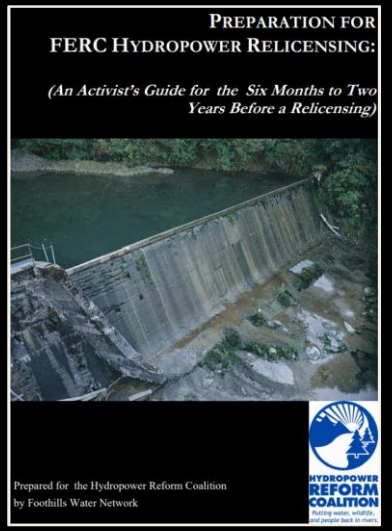
FERC Process

- RAPID toolkit: Federal Hydropower Permitting Process
- FERC Citizen Guide

FERC Citizen Guide (FERC)

Hydropower Reform Coalition

- Activist's Prep Guide
- Citizen Toolkit for Effective Participation in Hydropower Licensing



Preparation for FERC Hydropower Relicensing (HRC)

Tips for Getting Started with FERC

1. Get help early! Agency WSR & Hydro Leads
2. Locate the hydro project(s) that affect your river
   a. Identify hydro project boundary and WSR boundary
   b. Identify hydro-related provisions in river designation language
3. Read the most recent license order
4. Review key license requirements related to river values (e.g., Flow, Aquatic habitat, Fish passage, Recreation management, Shoreline management)
5. Figure out when relicensing begins and track the process timeline
   a. Subscribe to docket through FERC elibrary
6. File comprehensive river management plan with FERC
7. Build relationships with Licensee, Partners, Agency contacts & use their authorities