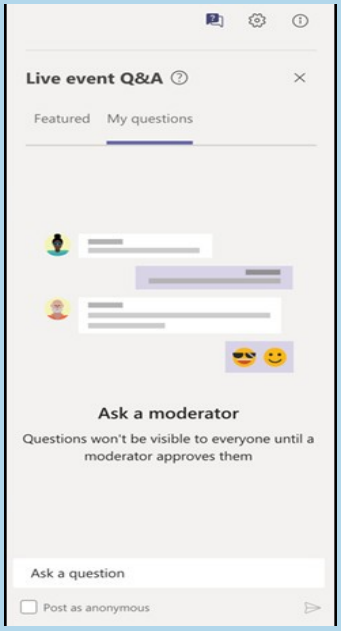
Trinity River Restoration Program
Oregon Gulch Scoping Meeting – Nov. 5, 2020

Participating in the Oregon Gulch Scoping Meeting Event

Because your microphone and camera will not be available to you for the live event, the only way you can communicate with the presenters or other attendees is to use the Q&A panel.

Using the Q&A Panel

To open the Q&A panel, select the Q&A button found on the upper, right side of the screen.



To ask a question, type your question in the compose box (located at the bottom of the panel), and then select the Send button or icon. If you want to ask your question anonymously, select "Post as anonymous."

The questions that are sent to the presenters will be published and addressed at the end of the presentations.

Questions and comments specific to the Oregon Gulch project will be given priority.

Oregon Gulch Public Scoping Meeting Agenda

- **Meeting Guidelines –** Emily Thorn, *Ironwood Consulting*

- **Introduction –** Mike Dixon, *TRRP Executive Director*
  - Meeting Purpose & Program Partners
  - TRRP Background
  - Objectives: Overall and Proposed Project

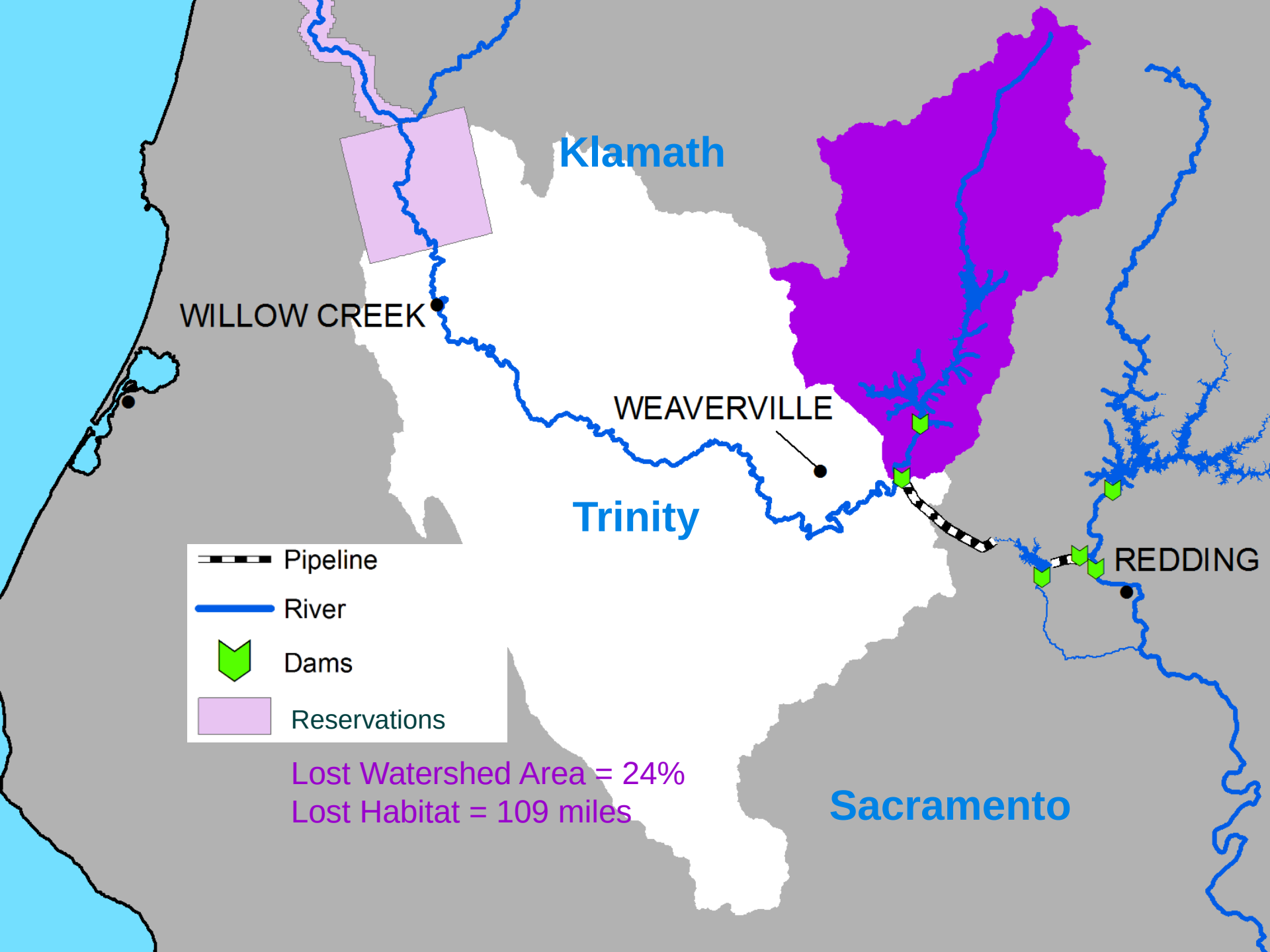
- **Oregon Gulch Project Description –** Dave Gaeuman, *Project Designer (YTFP)*
  Kyle De Juilio, *Fisheries Biologist (YTFP)*
  - Project Design and Purpose

- **Environmental Compliance –** Brandt Gutermuth, *Env. Scientist*
  - Lead Agencies
  - Project Schedule
  - How to submit questions or comments

Oregon Gulch Scoping Meeting

November 5, 2020

Mike Dixon, Ph.D. – Executive Director, TRRP
Dave Gaeuman, Ph.D. – Geomorphologist, Yurok Tribal Fisheries Program
Kyle De Juilio, Fisheries Biologist – Yurok Tribal Fisheries Program
Brandt Gutermuth – Environmental Scientist, TRRP


Klamath
WILLOW CREEK
WEAVERVILLE
Trinity
REDDING
Pipeline
River
Dams
Reservations
Lost Watershed Area = 24%
Lost Habitat = 109 miles
Sacramento

Anadromous Fish

Spring and Fall Run Chinook

Coho

Steelhead

Pacific lamprey

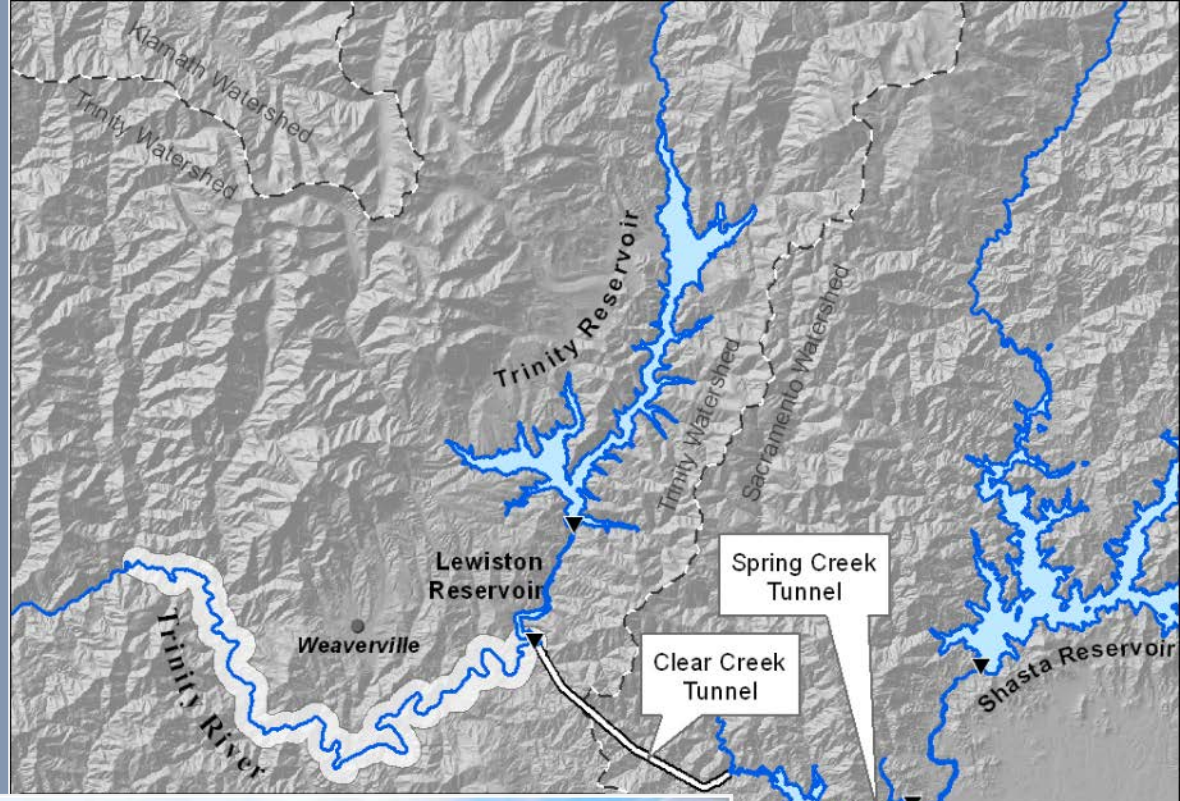
Need for River Restoration: Loss of Natural River Function

Hydraulic and dredge mining buried floodplain and obliterated the channel

Logging increased fine sediment and reduced wood recruitment

Loss of Natural River Function: Diversions to Central Valley

Initially took 80-90%
of the Trinity River.
Still takes over 50%.



U.S. Department of Interior Record of Decision 2000 Establishes the Trinity River Restoration Program

The long-term goals of this Program are to restore the form and function of the Trinity River; restore and sustain natural production of anadromous fish populations in the Trinity River to pre-dam levels; and to facilitate full participation by dependent tribal, commercial, and sport fisheries through enhanced harvest opportunities.

Our toolbox

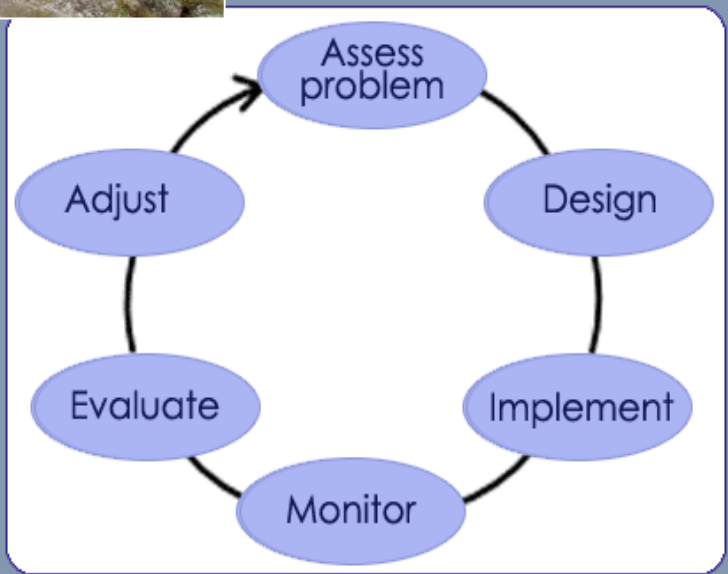
Gravel Augmentation

Channel Rehabilitation

Restoration Flows

Watershed Restoration

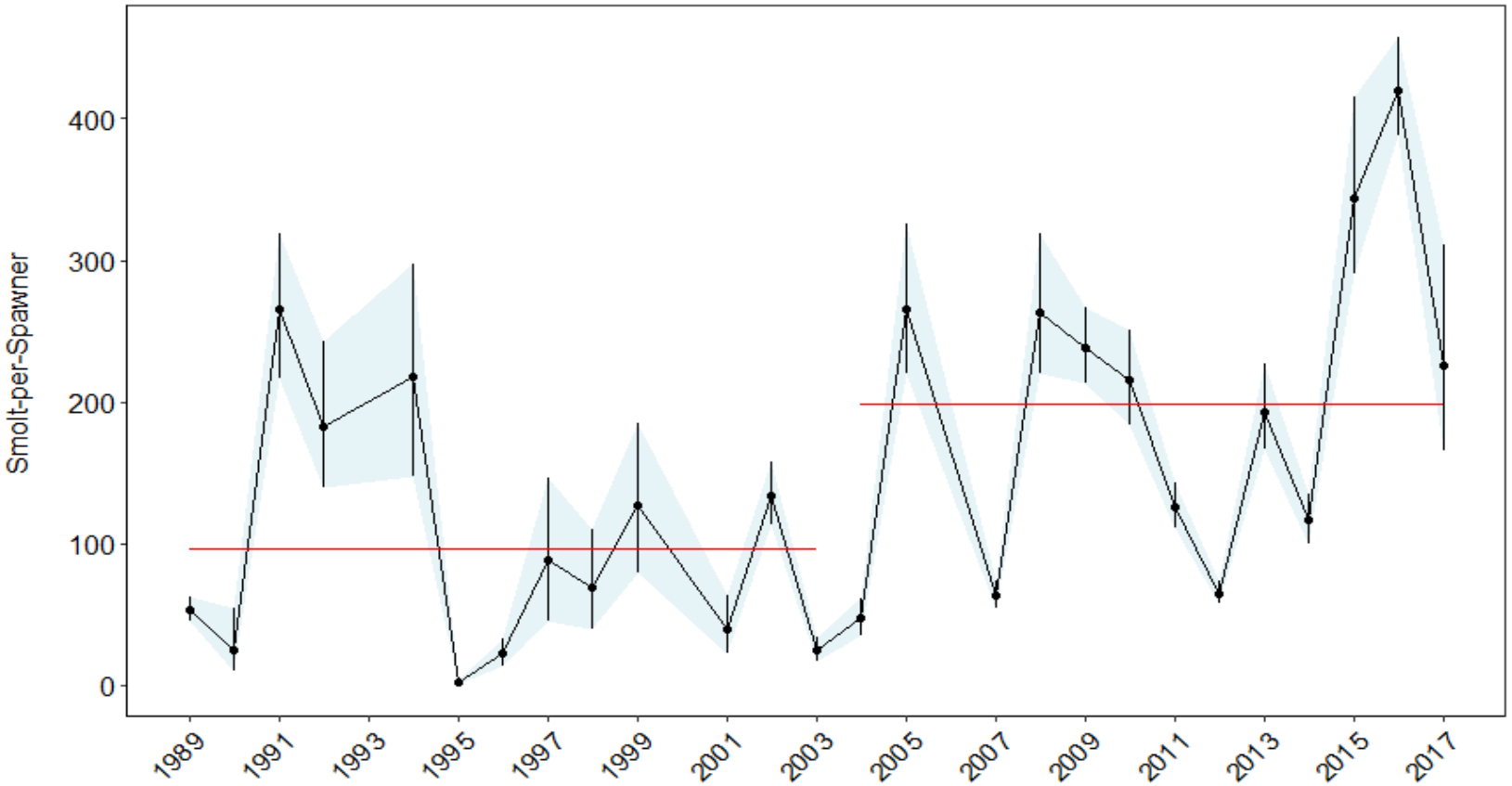
Adaptive Management



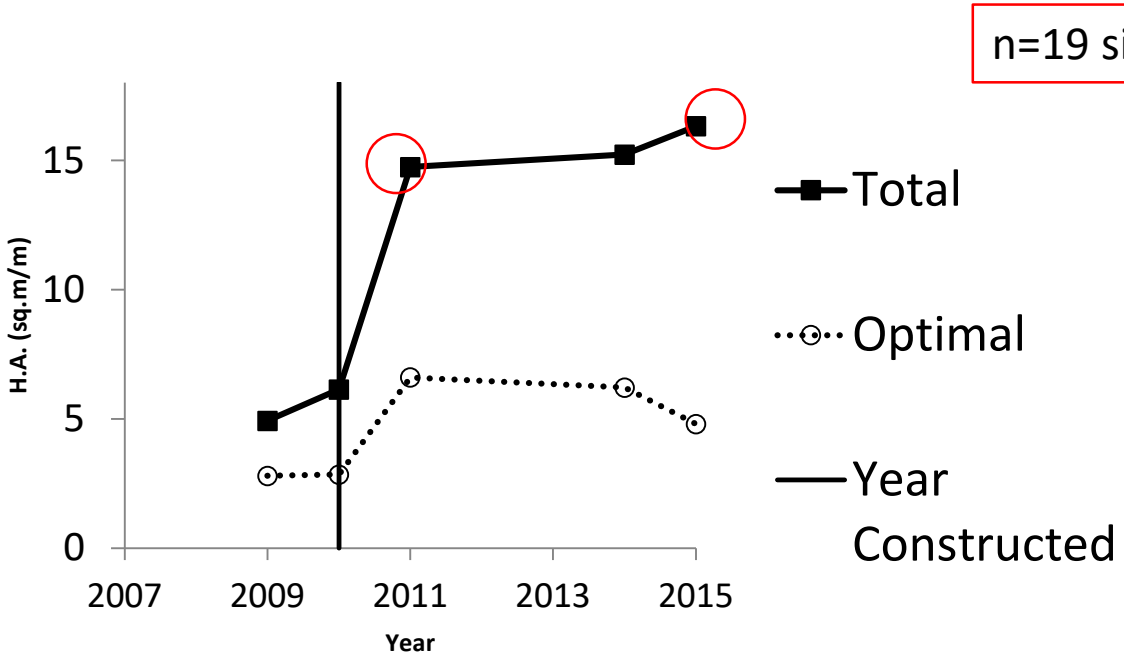
Channel Rehabilitation

Restoration Results!

Smolts per Spawner – Change Point Analysis



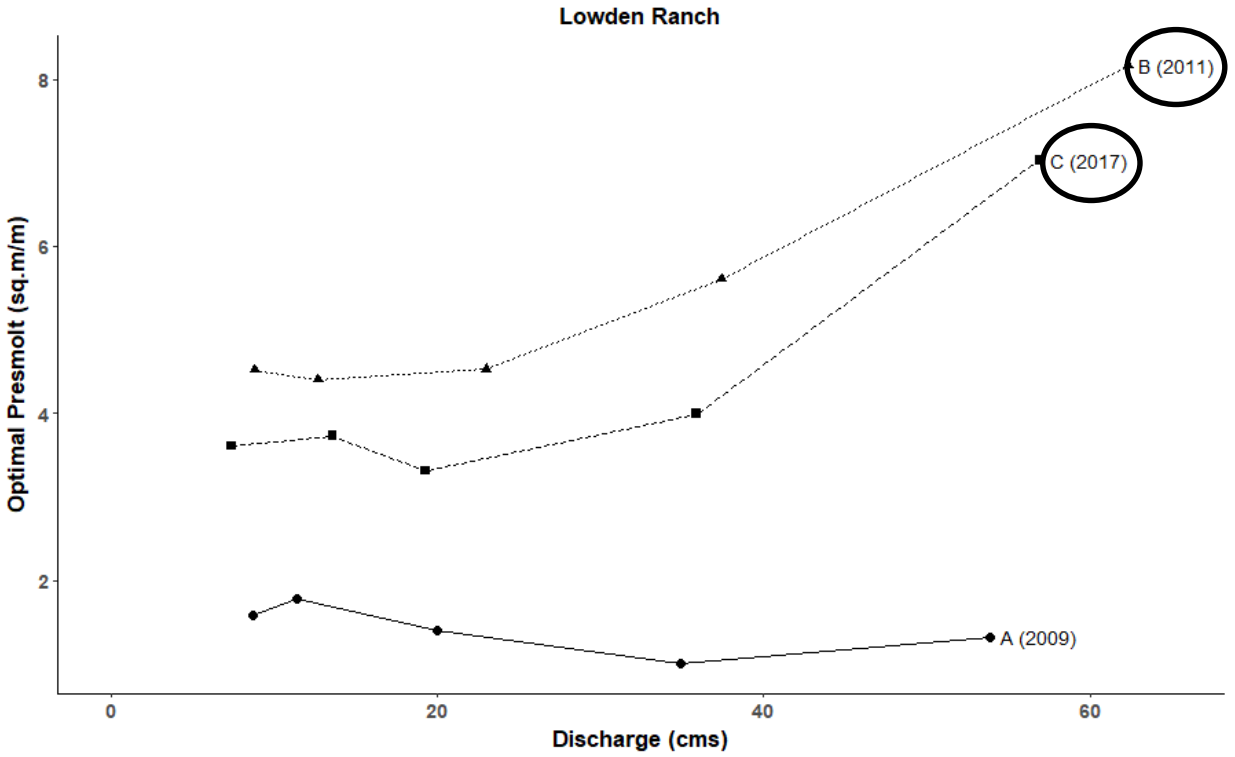
Boyce, J., D.H. Goodman, N.A. Som, J. Alvarez and A. Martin. 2018. **Trend Analysis of Salmon Rearing Habitat Restoration in the Trinity River at Summer Base Streamflow, 2005-2015**.



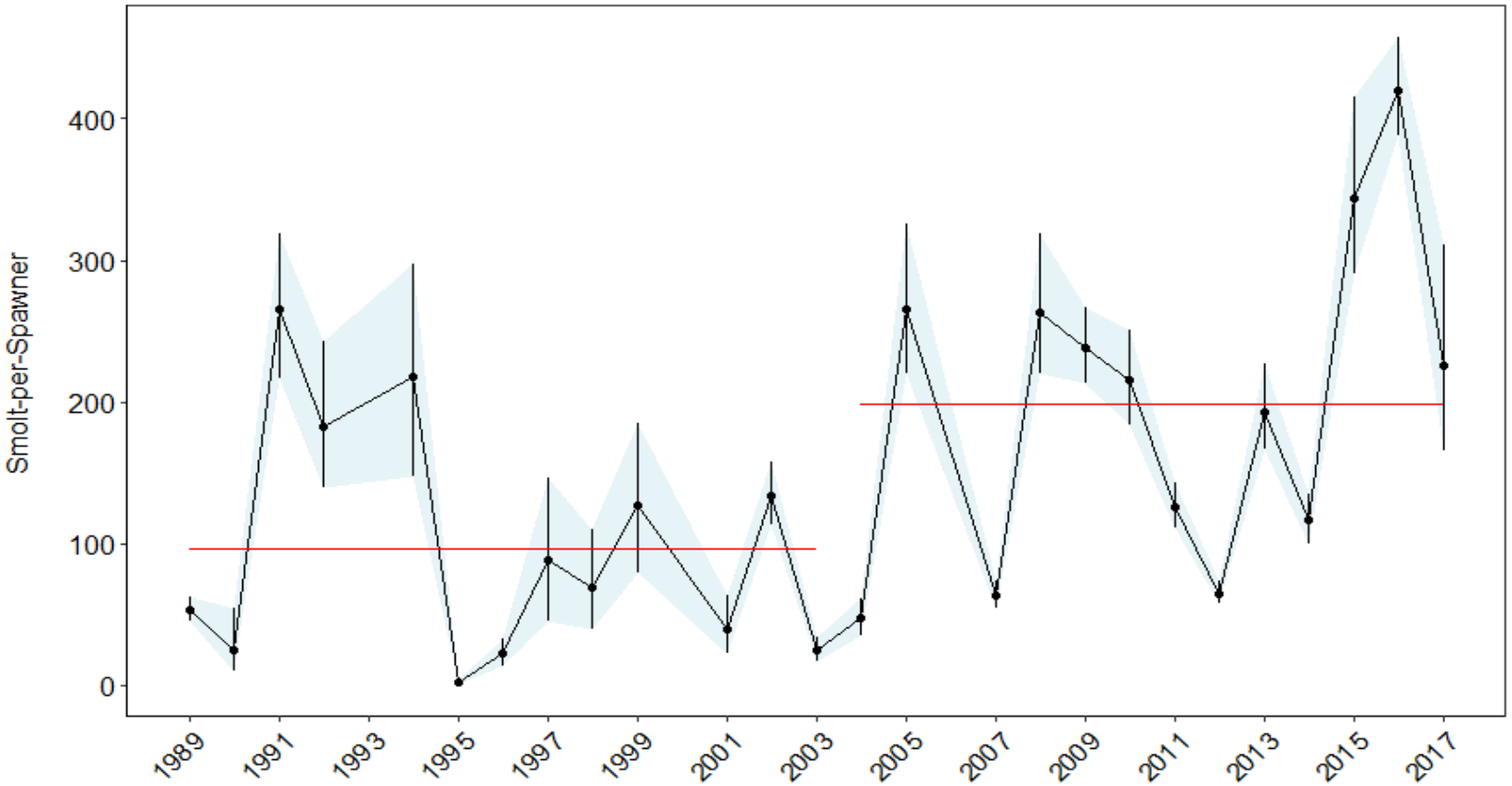
Boyce, J., D.H. Goodman, J. Alvarez, A. Martin and K. Hopkins. 2020. **Streamflow and Juvenile Salmonid Habitat Availability at Six Rehabilitation Sites on the Trinity River, California 2008-2017.**

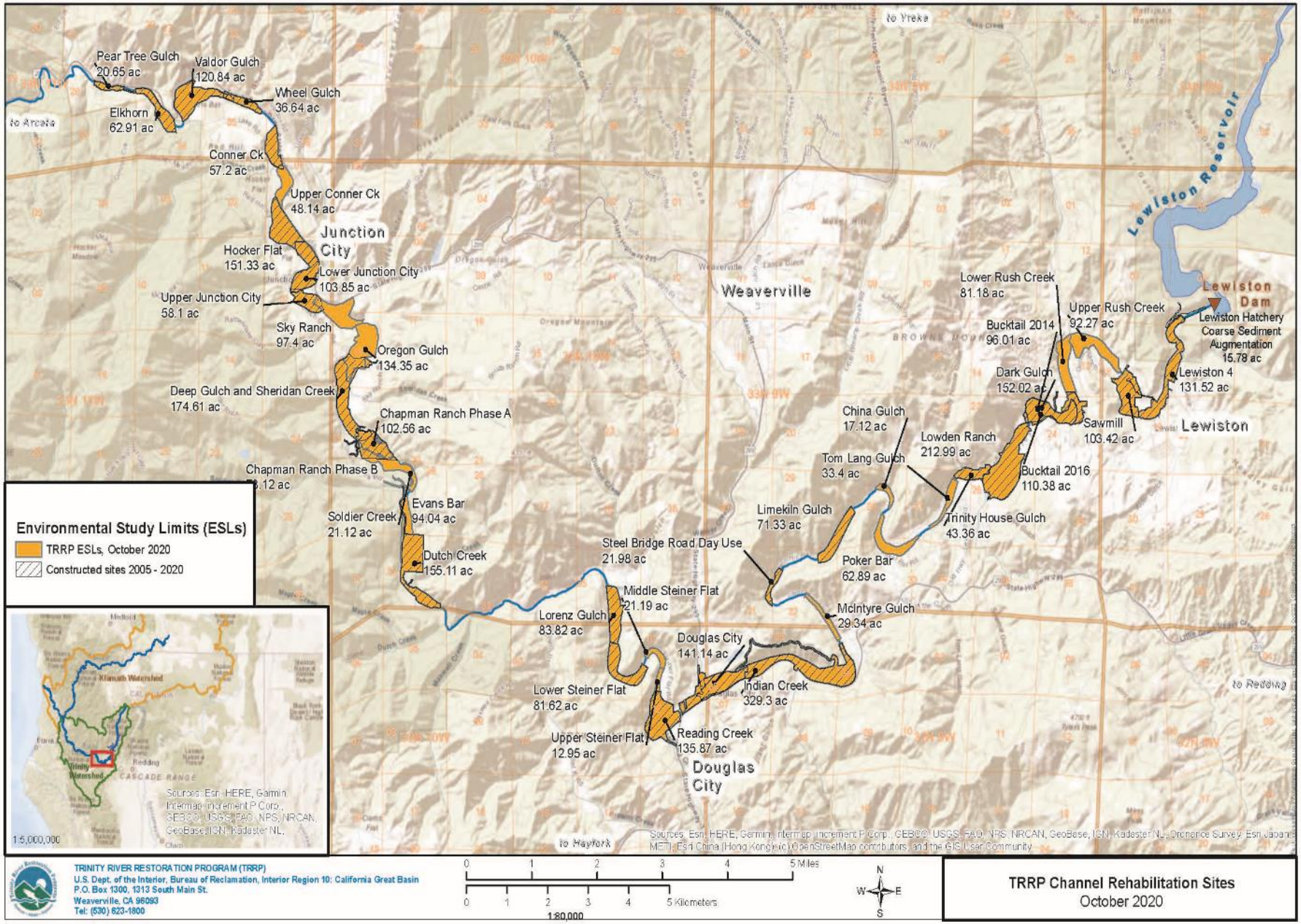
(300-2,000 cfs)

n=6 sites



Smolts per Spawner – Change Point Analysis





TRINITY RIVER RESTORATION PROGRAM (TRRP)
U.S. Dept. of the Interior, Bureau of Reclamation, Interior Region 10: California Great Basin
P.O. Box 1300, 1313 South Main St.
Weaverville, CA 96093
Tel: (530) 623-1800

TRRP Channel Rehabilitation Sites
October 2020

Oregon Gulch

Description: Heavily altered; large tailings and mine terrace

- Hydraulic mine debris washed into valley bottom
- Valley bottom was dredged, obliterating the natural channel and its floodplain
- Juvenile salmon habitat decreases with flow

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0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometers
1:80,000

N W E S

TRRP Channel Rehabilitation Sites
October 2020

Oregon Gulch River Rehabilitation

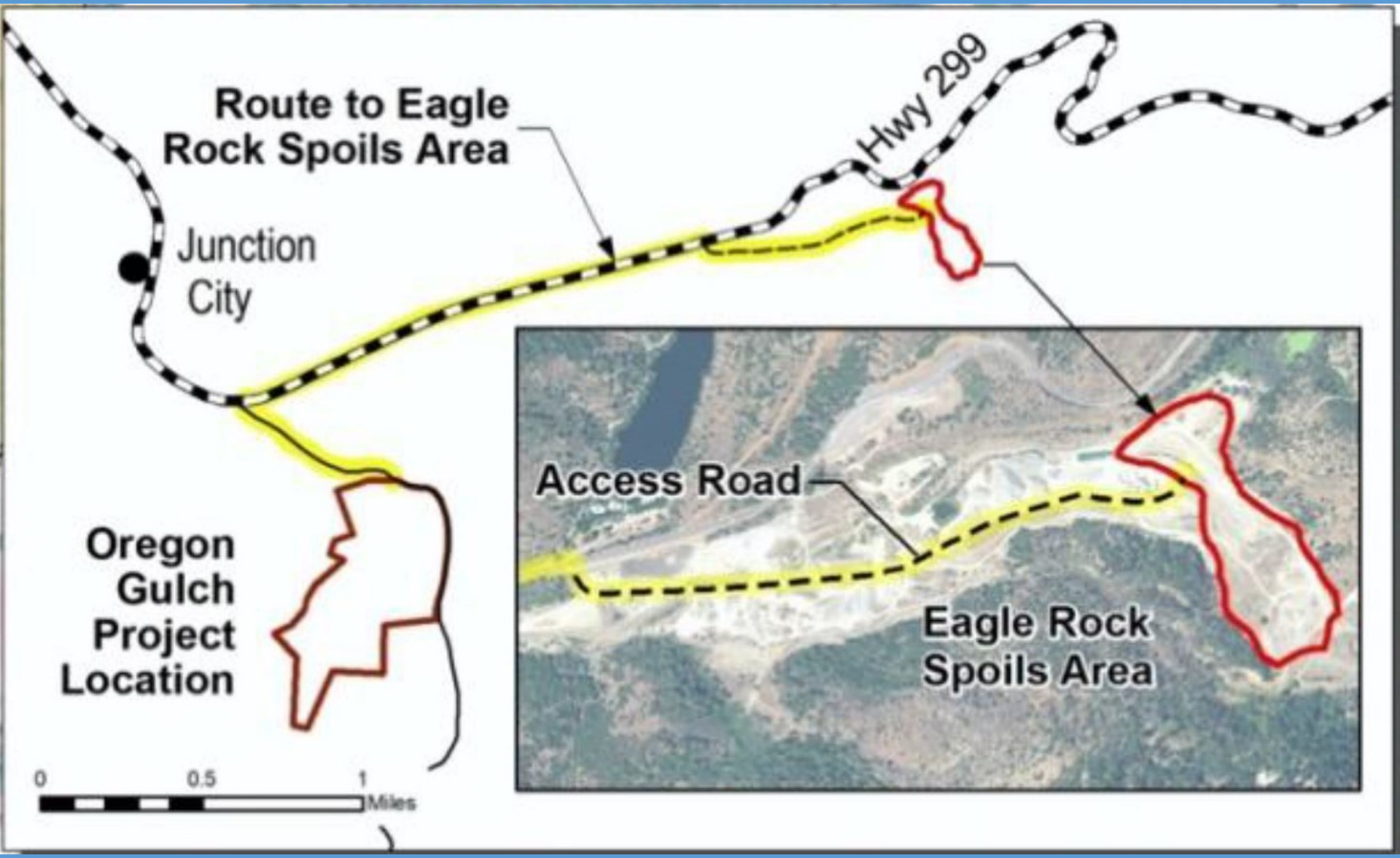
Overall Project Objectives

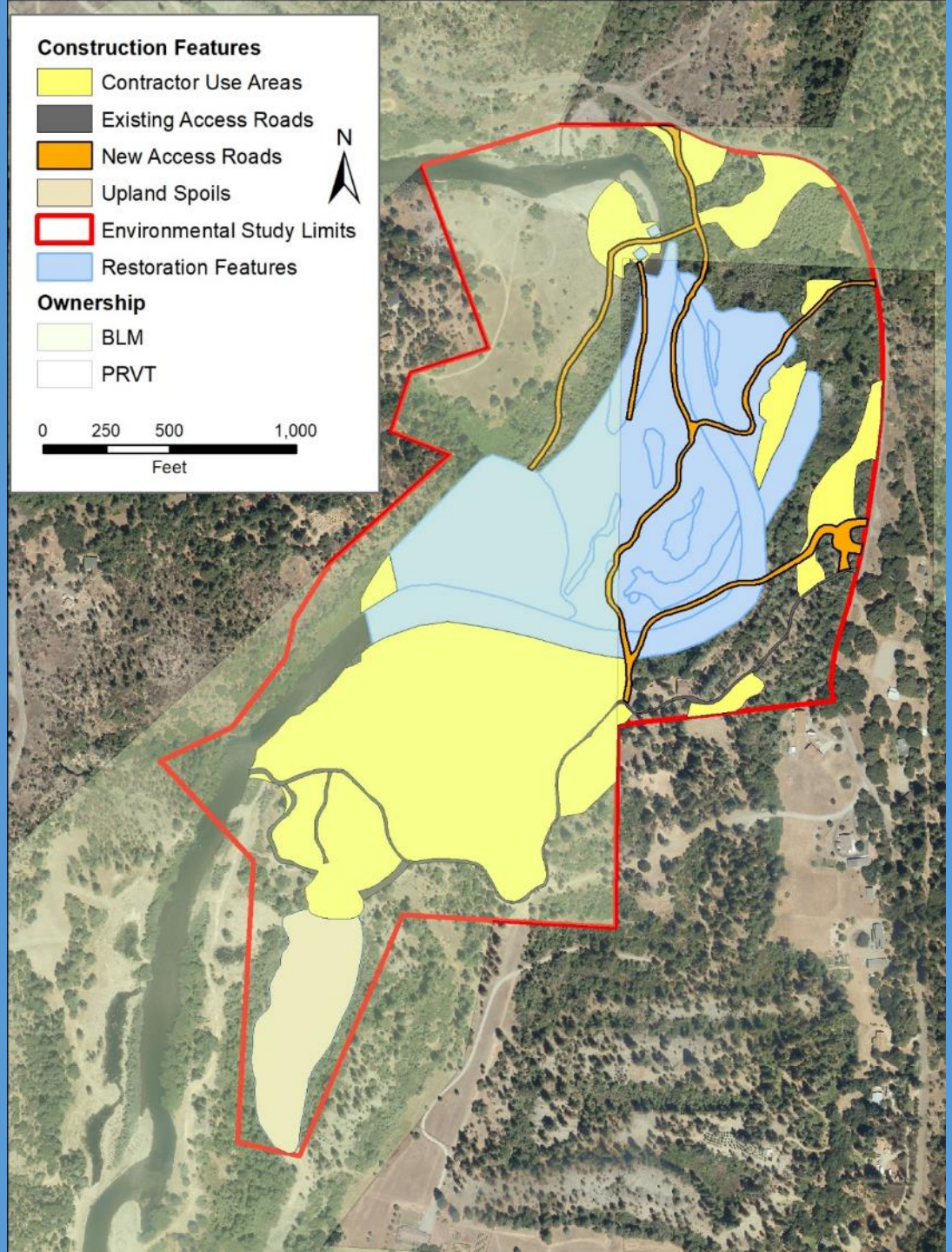
Remove tailings piles from 16 acres of valley bottom to:

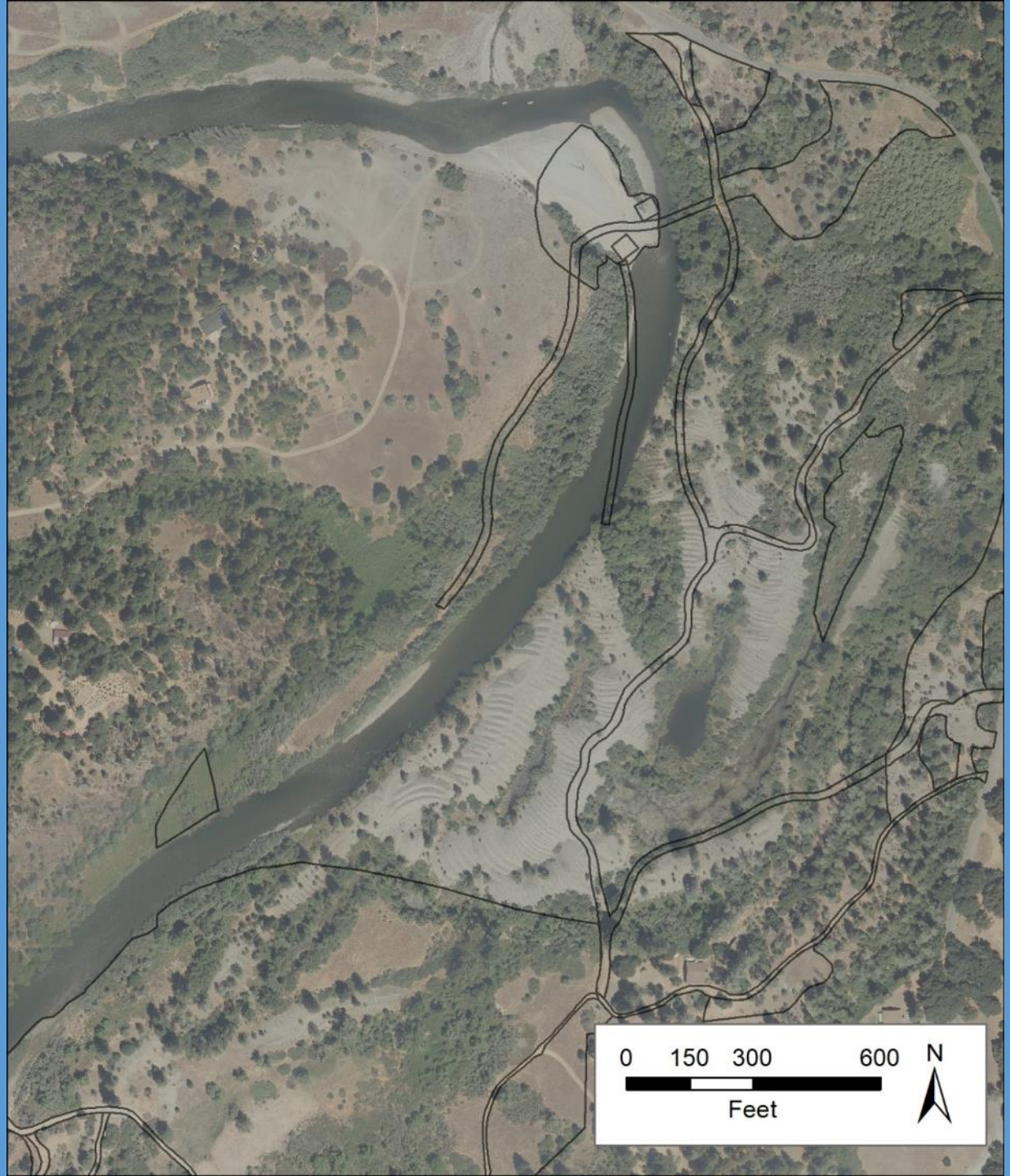
- Greatly increase the extent and frequency of floodplain inundation
- Promote fluvial processes and channel planform change
- Greatly increase fry rearing habitat availability
- Greatly increase riparian biomass and abundance
- Enhance riverine trophic production and overall ecosystem function

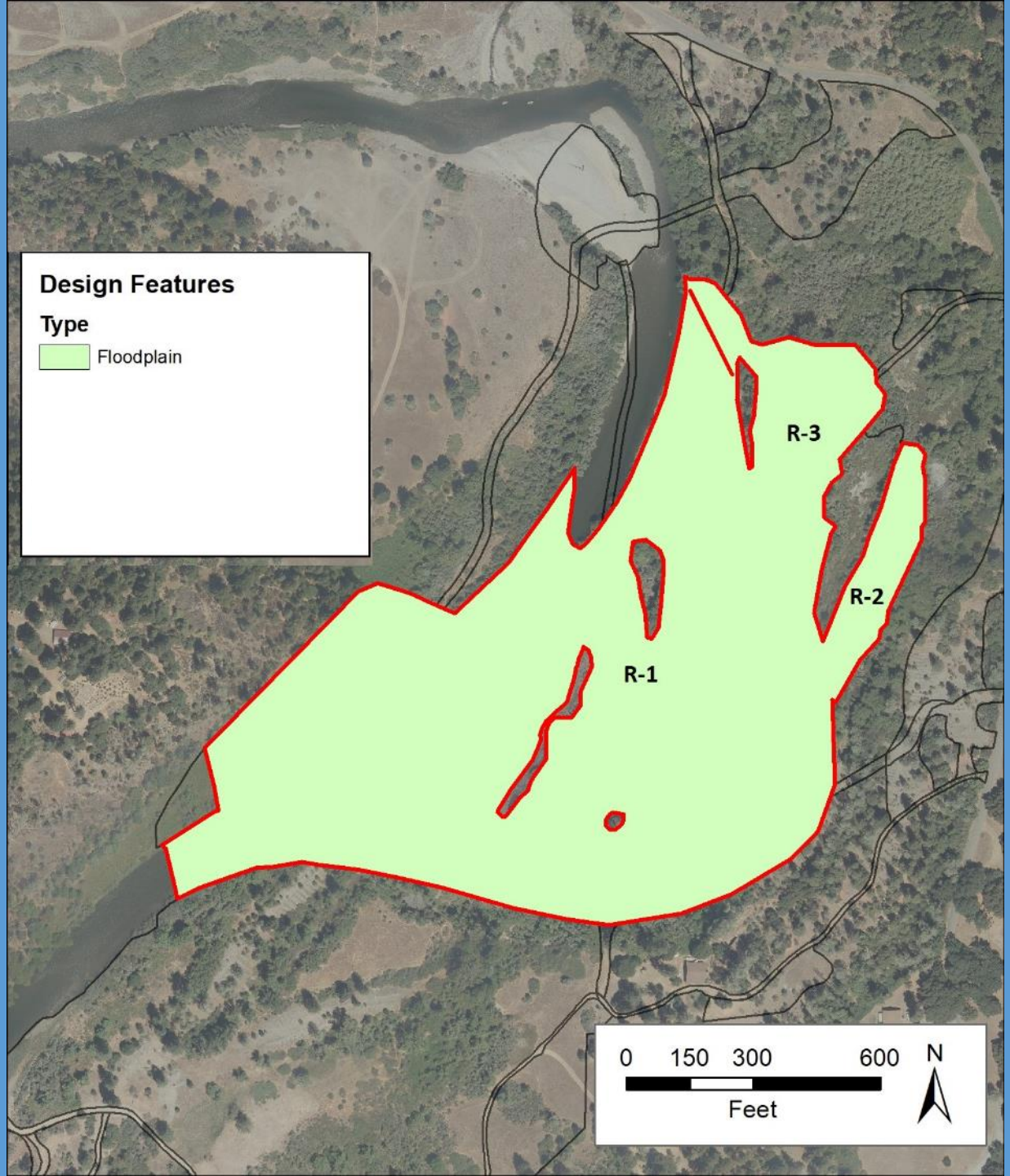
Where are the tailings going?

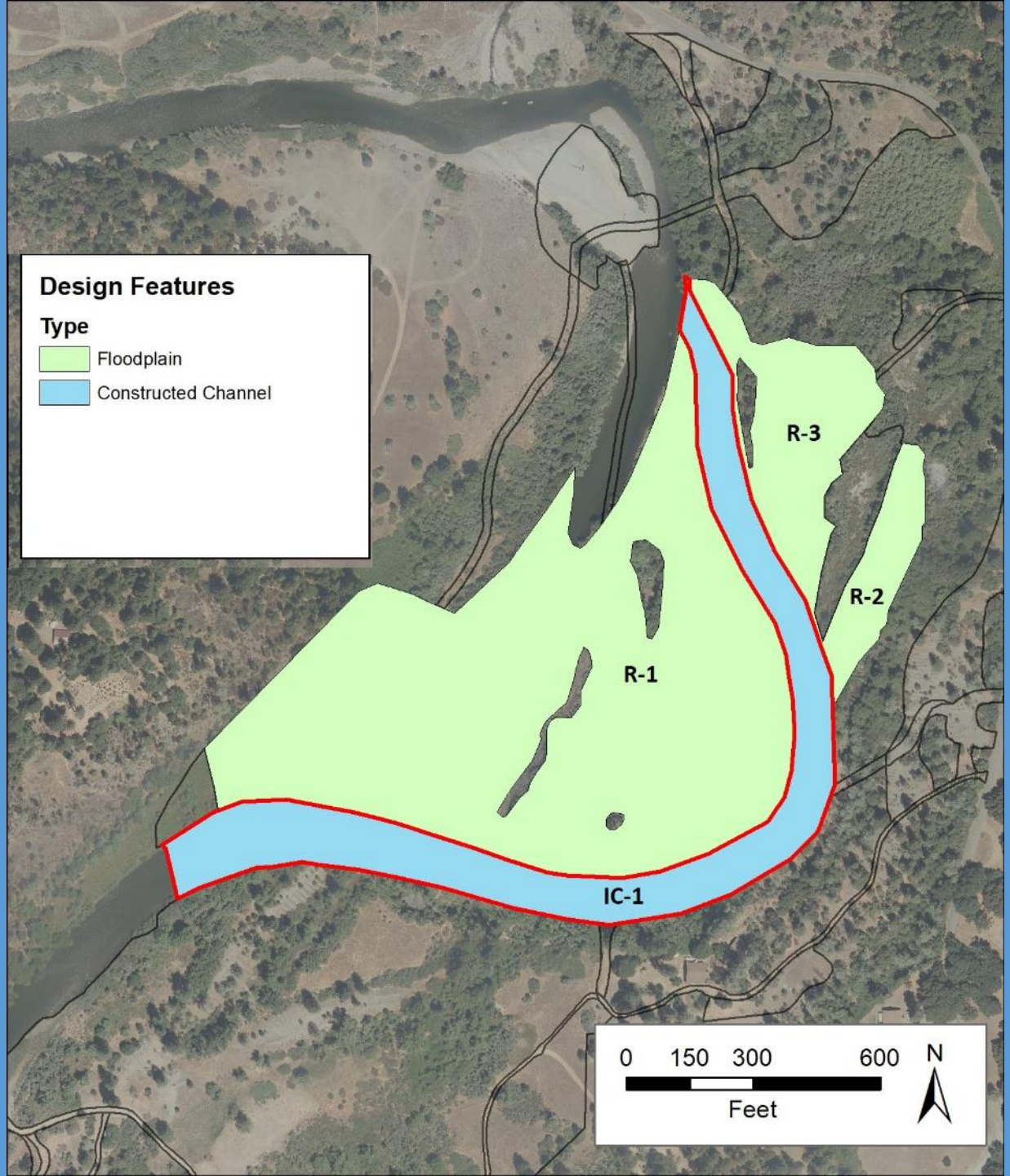
Between 320,000 and 500,000 cubic yards of tailings to Eagle Rock Quarry

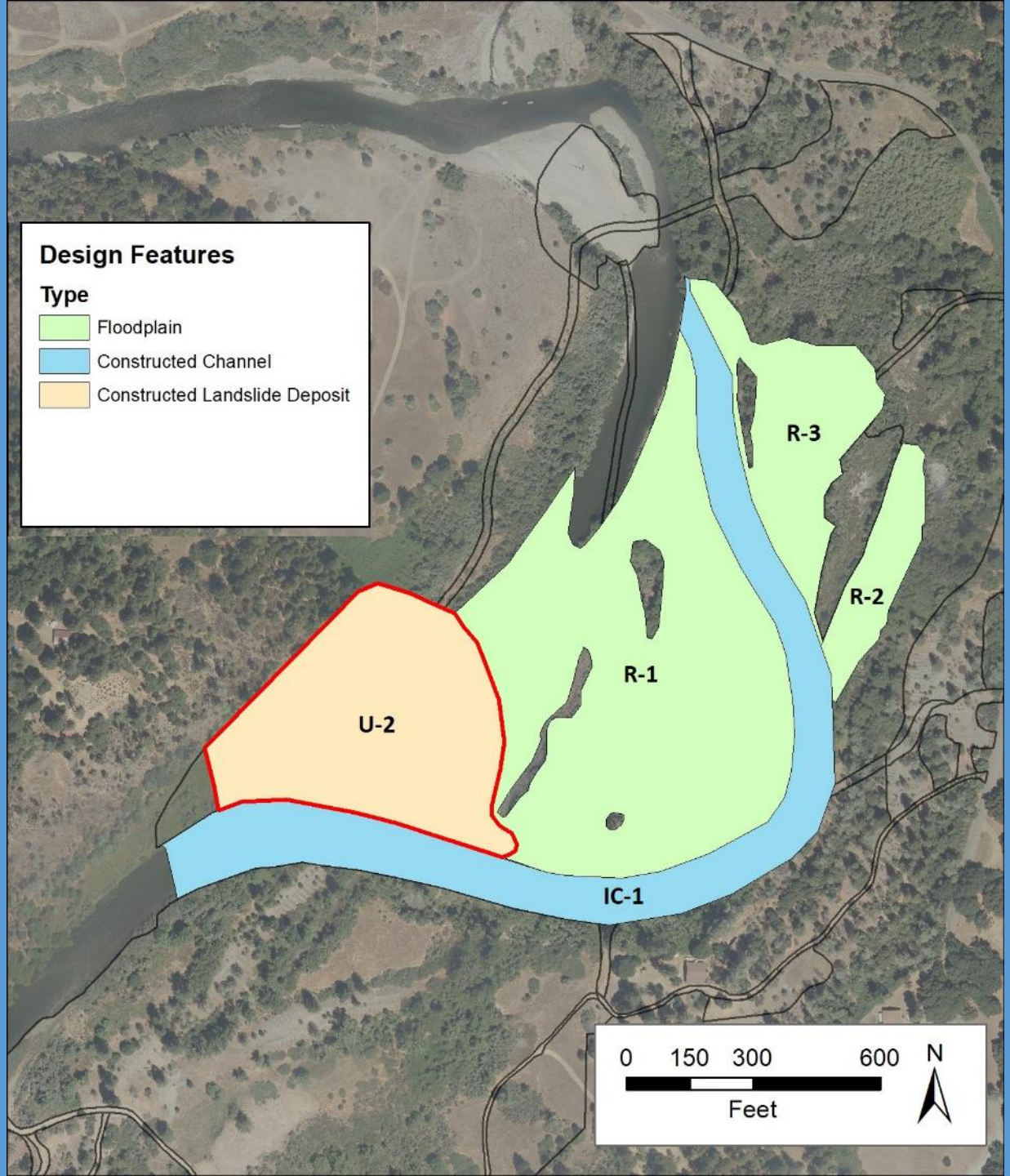


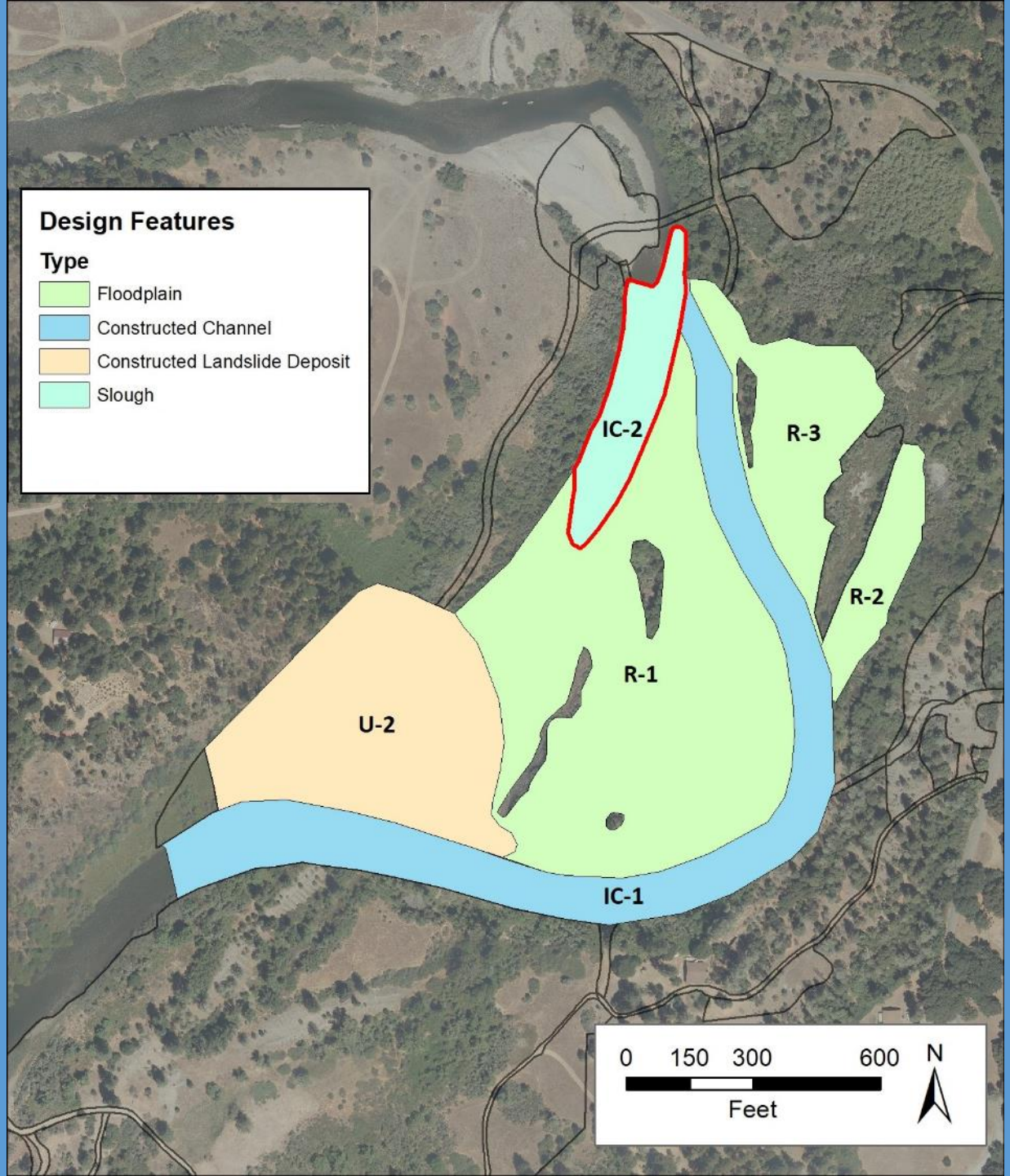

Construction Features
Contractor Use Areas
Existing Access Roads
New Access Roads
Upland Spoils
Environmental Study Limits
Restoration Features
Ownership
BLM
PRVT
N
0
250
500
1,000
Feet

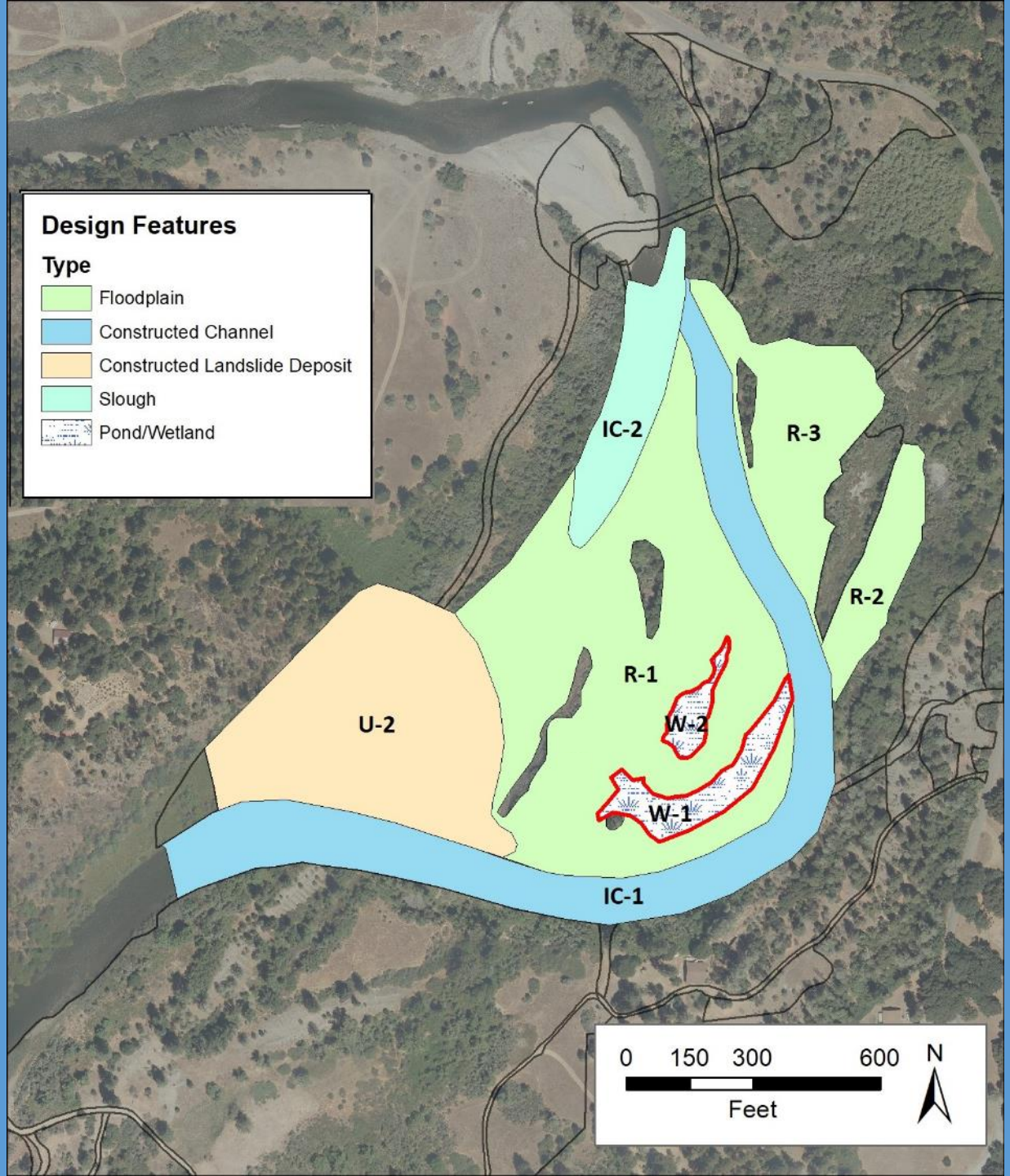

0 150 300 600
Feet
N

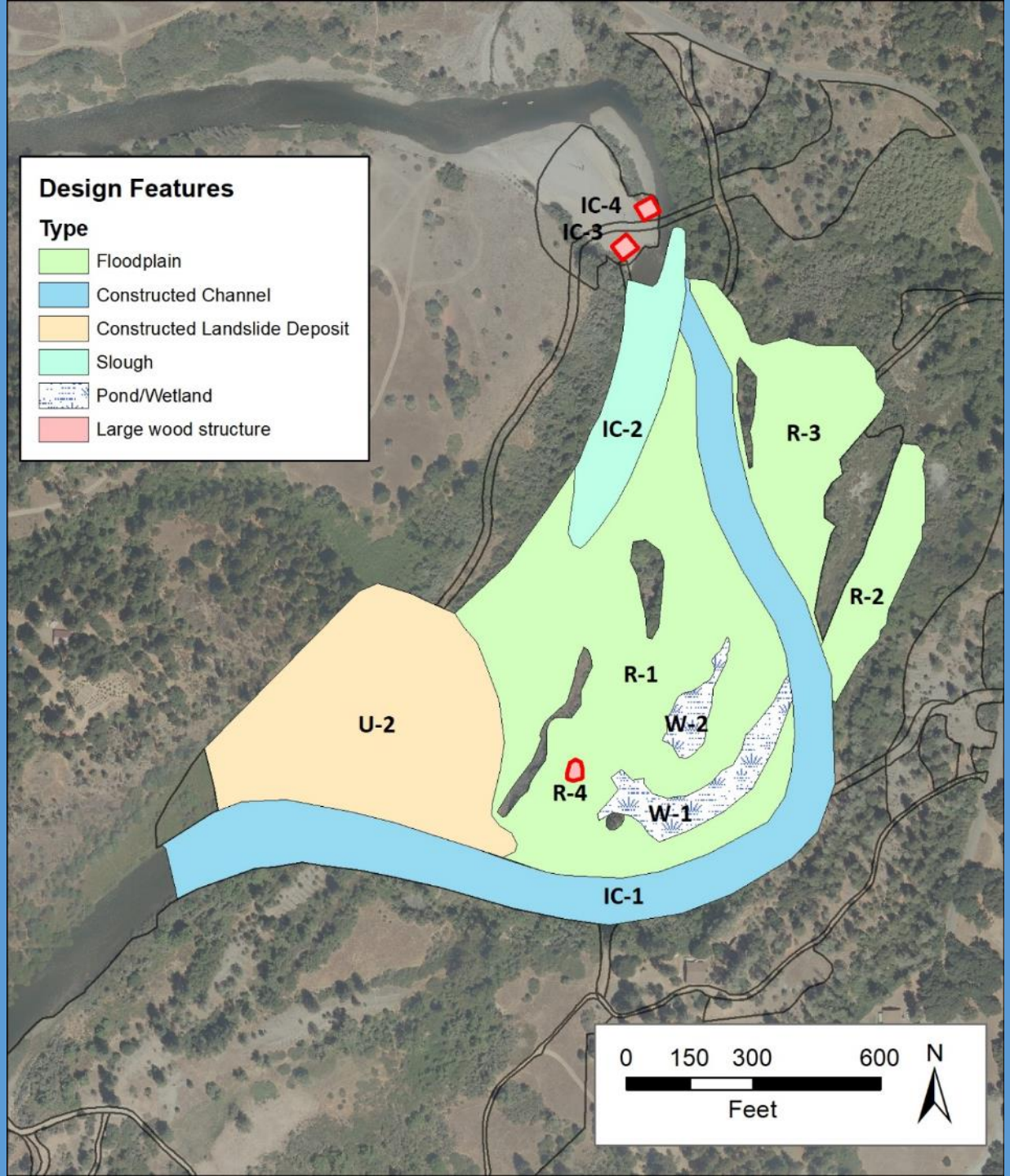

Design Features
Type
Floodplain
R-3
R-2
R-1
0
150
300
600
Feet
N


Design Features
Type
Floodplain
Constructed Channel
R-3
R-2
R-1
IC-1
0
150
300
600
Feet
N

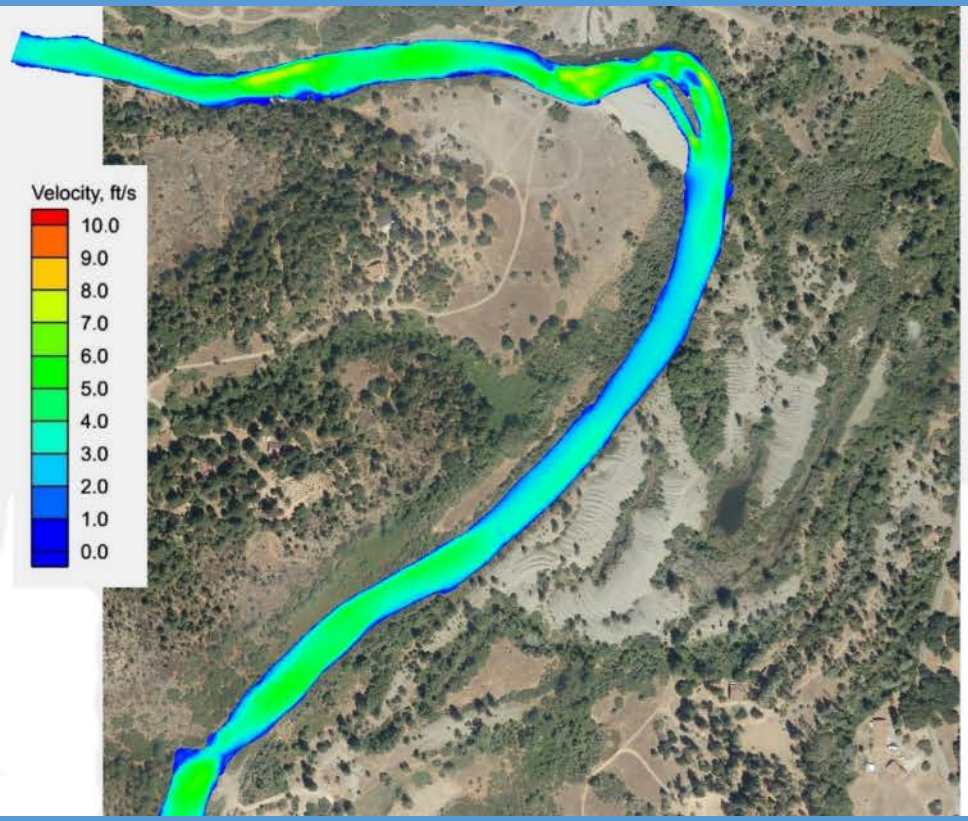

Design Features
Type
Floodplain
Constructed Channel
Constructed Landslide Deposit
R-3
R-2
R-1
U-2
IC-1
0 150 300 600
Feet
N


Design Features
Type
Floodplain
Constructed Channel
Constructed Landslide Deposit
Slough
IC-2
R-3
R-2
R-1
U-2
IC-1
0
150
300
600
Feet
N

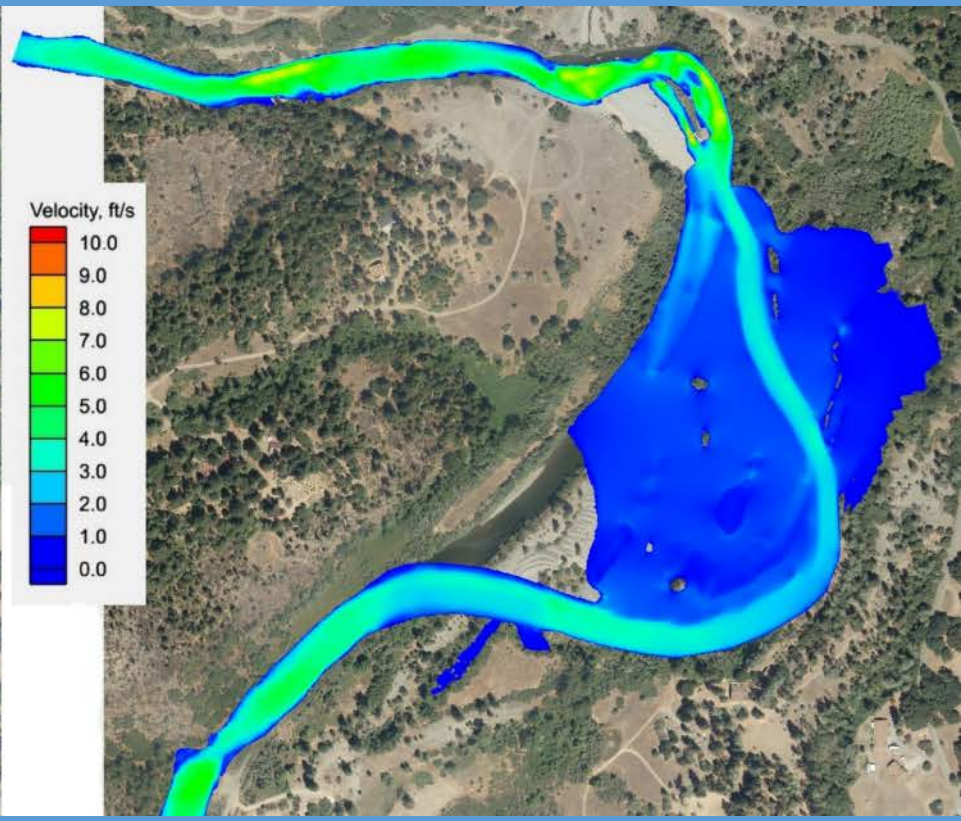

Design Features
Type
Floodplain
Constructed Channel
Constructed Landslide Deposit
Slough
Pond/Wetland
IC-2
R-3
R-2
R-1
U-2
W-2
W-1
IC-1
0
150
300
600
Feet
N


Design Features
Type
Floodplain
Constructed Channel
Constructed Landslide Deposit
Slough
Pond/Wetland
Large wood structure
IC-4
IC-3
IC-2
R-3
R-2
R-1
U-2
W-2
R-4
W-1
IC-1
0
150
300
600
Feet
N

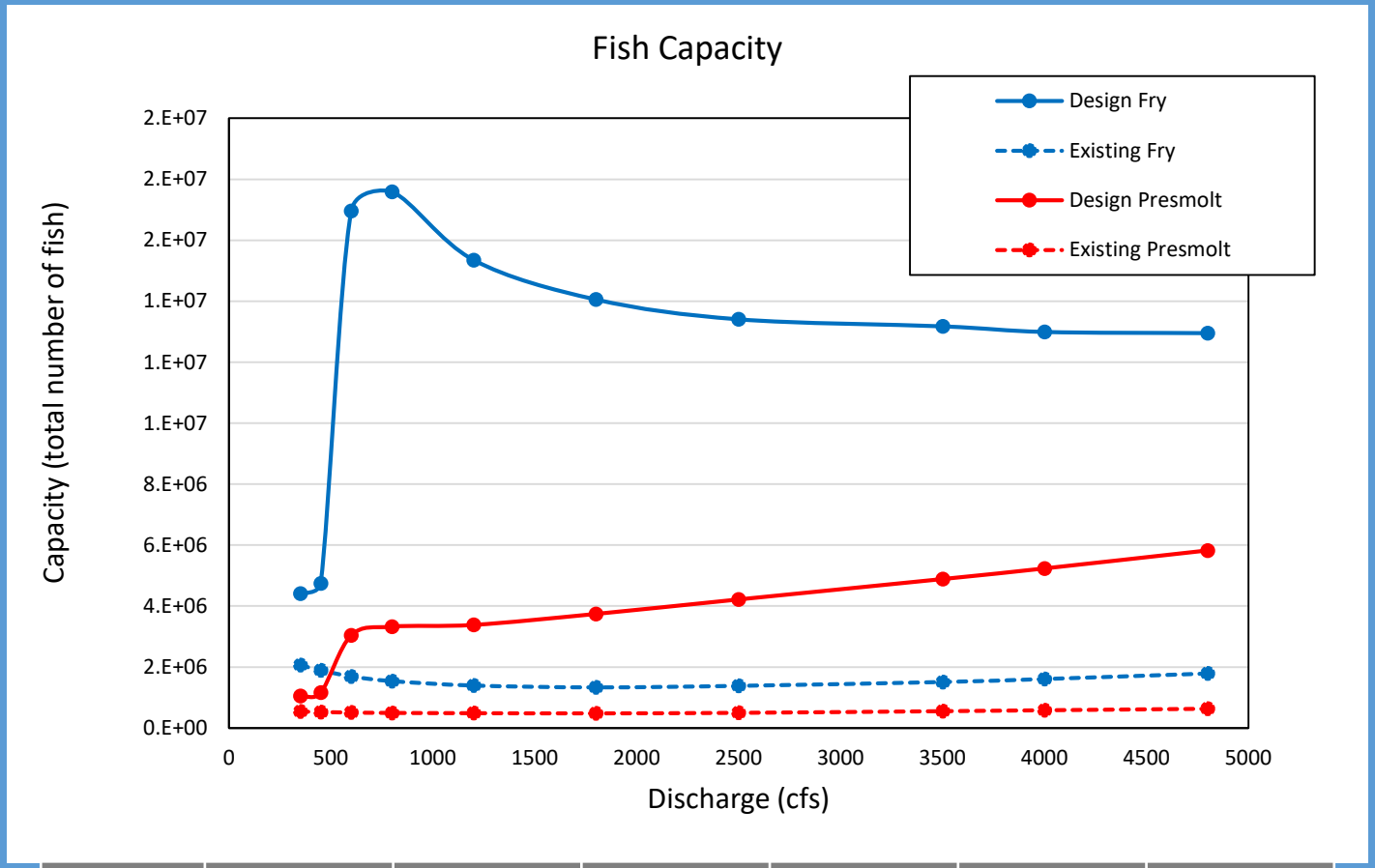
Modeled Inundation Extents and Flow Velocity
1,200 cfs



Existing Conditions



Design Conditions



River Discharge (cfs)	Existing Fry (millions)	Design Fry (millions)	Existing Smolts (millions)	Design Smolt (millions)	Percent Increase Fry	Percent Increase Presmolt
350	2	4.4	.54	1	**114**	**94**
450	1.9	4.7	.53	1.2	**150**	**119**
600	1.7	17	.51	3	**900**	**496**
800	1.5	17.5	.50	3.3	**1,040**	**567**
1,200	1.4	15.4	.49	3.4	**998**	**591**
1,800	1.3	14	.48	3.7	**951**	**673**
2,500	1.4	13.4	.50	4.2	**866**	**742**
3,500	1.5	13.2	.56	4.9	**770**	**780**
4,000	1.6	13	.59	5.2	**706**	**794**
4,800	1.8	13	.63	5.8	**623**	**819**

Oregon Gulch: Scoping is to

INFORM DECISION MAKING

5 November 2020

Environmental Compliance

ASSESSMENT PROCESSES

- **National Environmental Policy Act (NEPA)**
  - Requires analysis and disclosure of environmental & human effects
- **California Environmental Quality Act (CEQA)**
  - State equivalent to NEPA
  - Requires reducing environmental effects

Both minimize environmental effects via public participation and documentation

AGENCY ROLES

- **NEPA: Federal**
  - Lead & Project Proponent = Dept. of Interior
    U.S. Bureau of Reclamation
    (Trinity River Restoration Program)
  - Co-Lead =
    U.S. Bureau of Land Management

- **CEQA: State**
  - Lead = State Agency with primary project responsibility
    North Coast Regional Water Quality Control Board
  - Responsible Agency — **Trinity County**
  - Trustee Agencies — **California Dept. Fish & Wildlife**

Schedule

Fall 2020

- Oct 21 – Nov 23: Public Scoping

➡ **Virtual public meeting: Nov 5, 2020**

Winter 2020-2021

- Dec: Draft Environmental Assessment/ Initial Study (EA/IS)
- Dec - Jan: Public Comment Period

INPUT based on EA/IS Project Description

- Feb: Final EA/IS and decision

Spring - Summer 2021

- Repairs to Sky Ranch Road
- Haul mine waste from Oregon Gulch to Eagle Rock

How can the Oregon Gulch Project best meet Community and Restoration needs?

Project Contacts: Brandt Gutermuth at 530.623.1806 or Kevin Held at 530.623.1809

Submit input to Brandt at: fgutermuth@usbr.gov