



**Yakima River Edge Habitat
Project Phase 2**



Yakima River Edge Habitat Project Phase 2

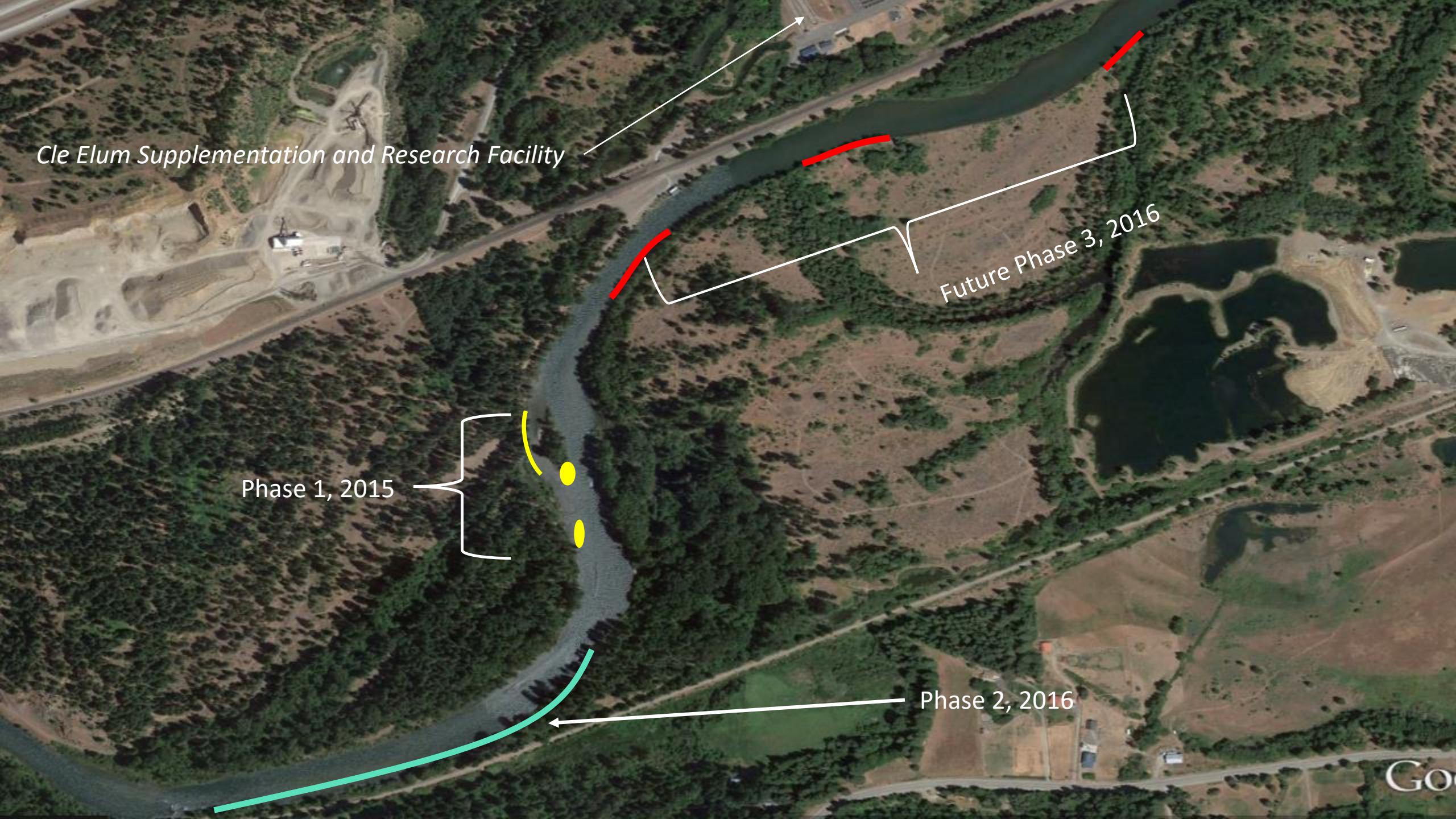


Cle Elum Supplementation and Research Facility

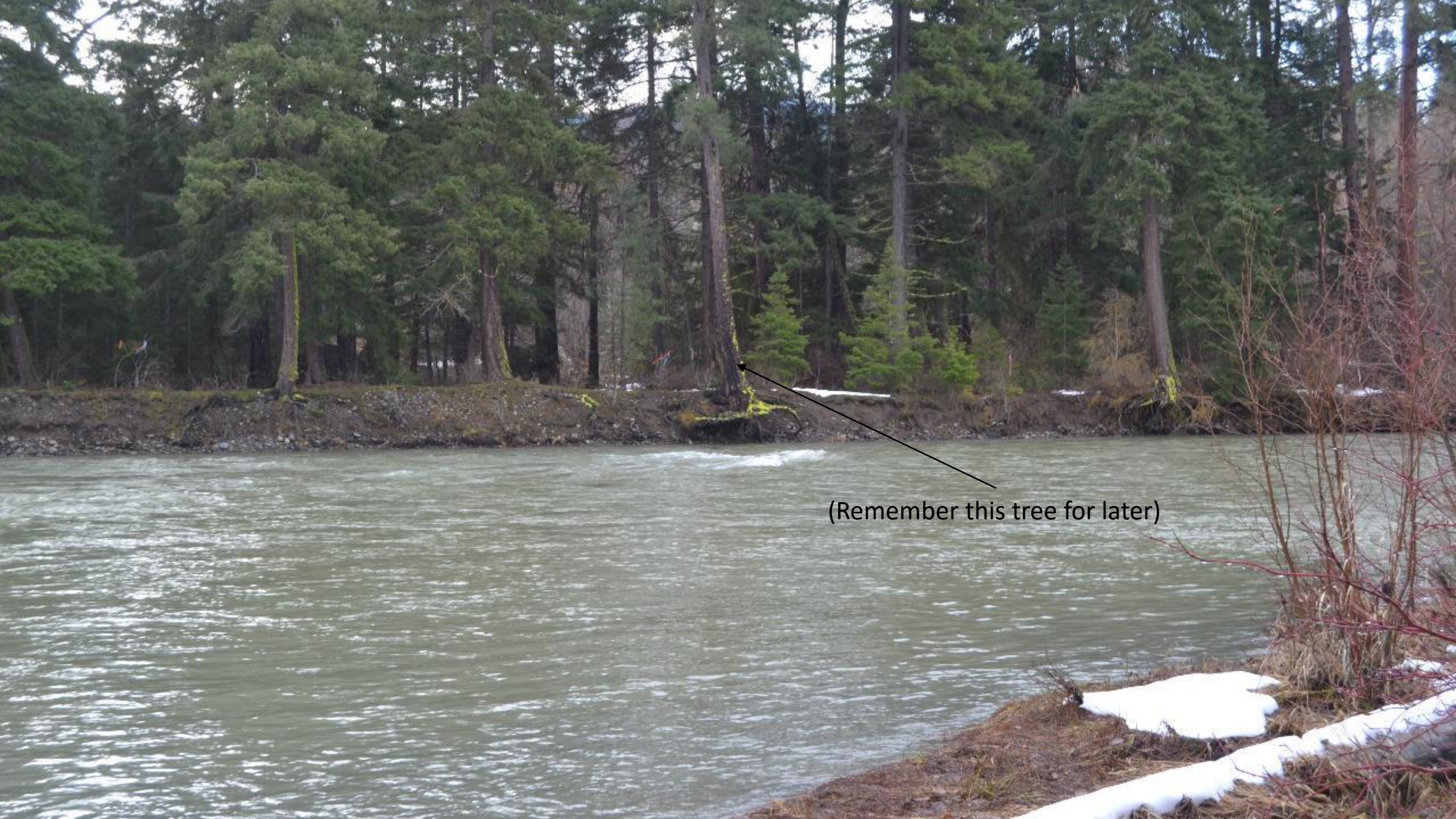
Future Phase 3, 2016

Phase 1, 2015

Phase 2, 2016







(Remember this tree for later)

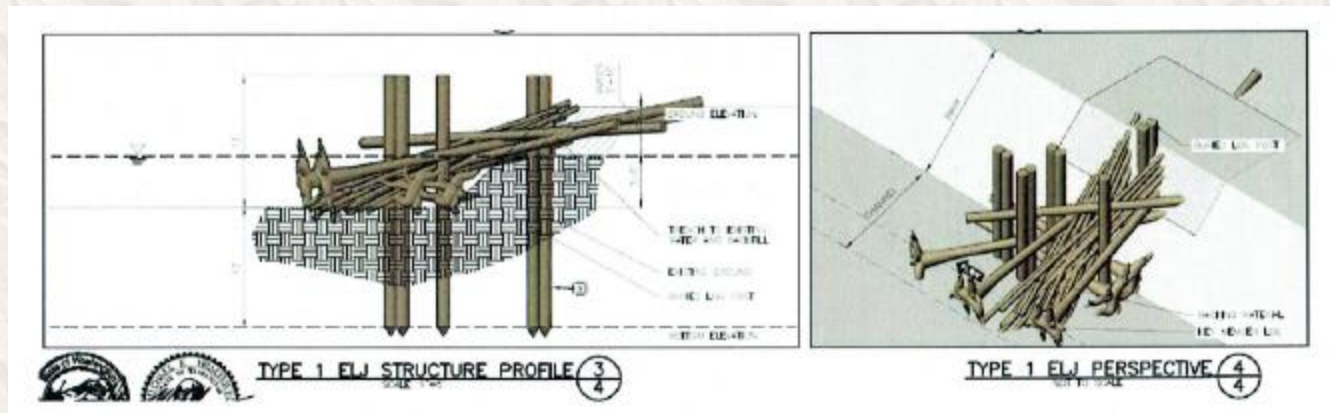




Movax Side Grip SP-80

Movax

- 25' X 14" DBH, log pile
- Engineer specifications required vertical piles be driven to 12' embedment
- 10 Type 1 ELJ structures = 90 piles (9/pile)



Glacial Clay, 2 feet below bed surface and ~8 feet deep = pile refusal



Movax getting smokin hot.



Sharpened pile points and fastened steel tips



18', modified H-Pile
for getting the pile
holes started



This should work....



Turns out, rock
can beat steel...



Progress!



A new invention- Meet “Big Red” by BCI Contractors

[Big Red Movie](#)





A photograph of a riverbank. In the foreground, there is a large pile of driftwood, including logs and branches, some of which are partially submerged in the water. Several tall, weathered tree stumps stand upright in the water. The river flows from the background towards the right. The ground is covered with pine needles and some green vegetation. The text "A question:" is overlaid on the left side of the image in a light orange color.

A question:



Do the vertical piles look ugly?

- Yes - Stream restoration projects shouldn't include them;
- Yes - but it's for the fish so use them; or,
- No - they look fine to me



Special thanks to:

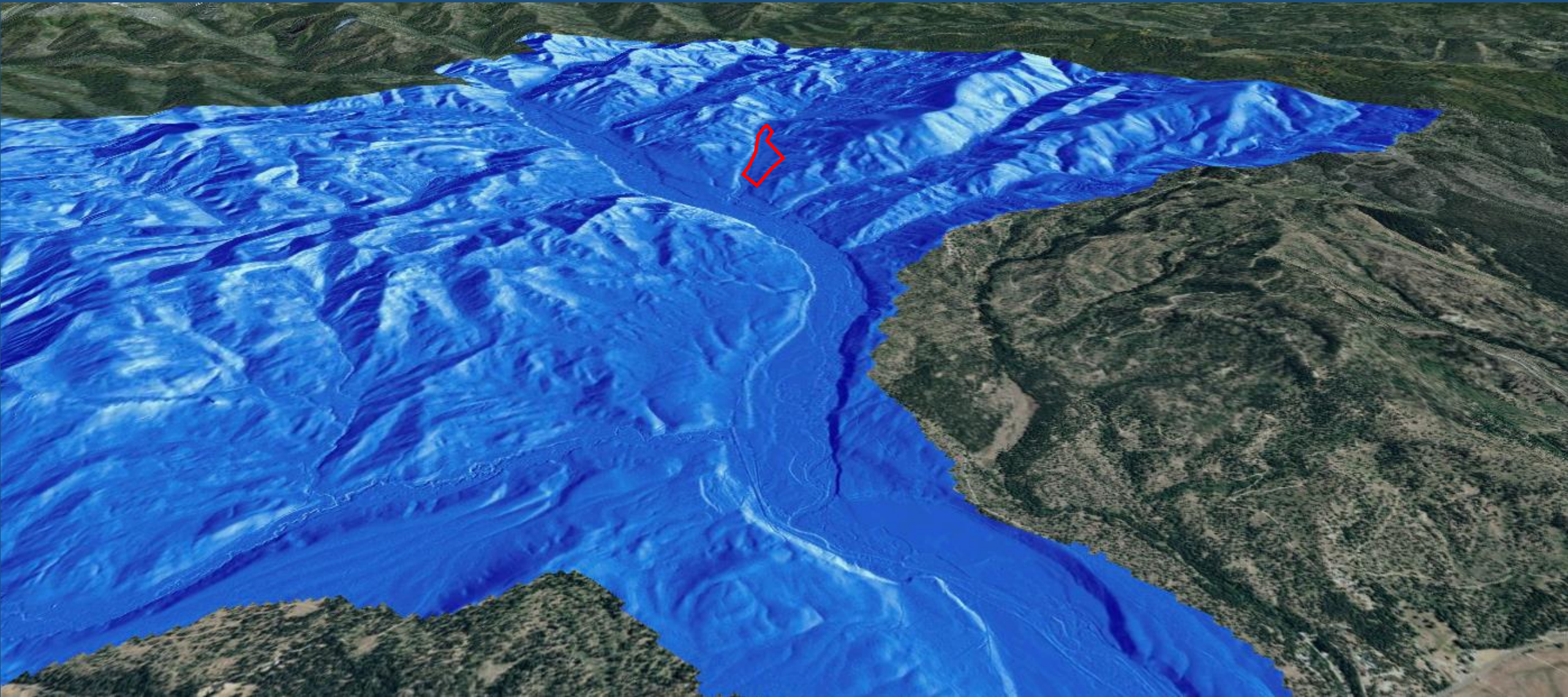
- Washington Department of Fish and Wildlife
- Washington Conservation Corps
- Washington Department of Parks and Recreation
- Bonneville Power Administration
- BCI Contracting
- Natural Systems Design

Project #2:
Indian Creek
Restoration Project





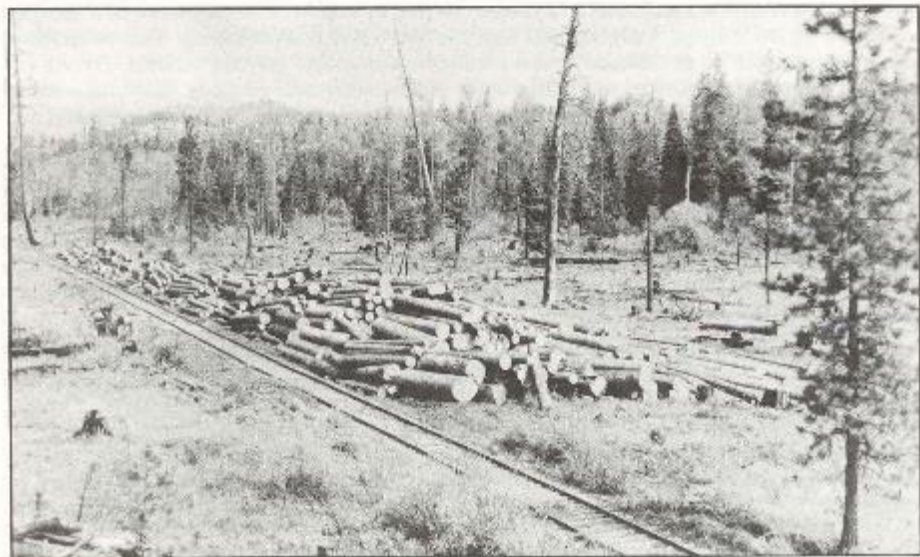






Log Drive Teahaway River

Photo Courtesy of Dave Casaday



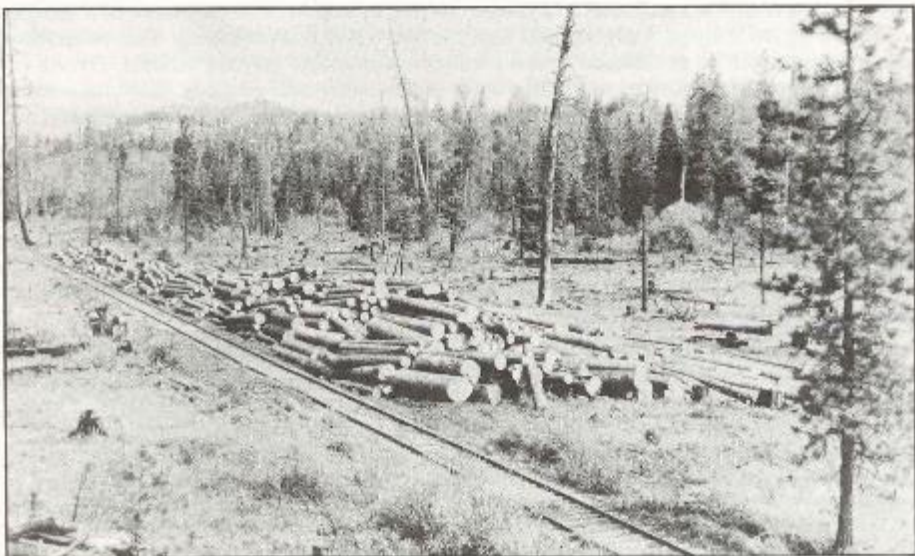
Logs along the North Fork spur waiting to be reloaded onto rail cars. Mid 1920s. (Photograph courtesy of Jack Whitnall.)

Shifting Baseline



Log Drive Teahaway River

Photo Courtesy of Bruce Caswell



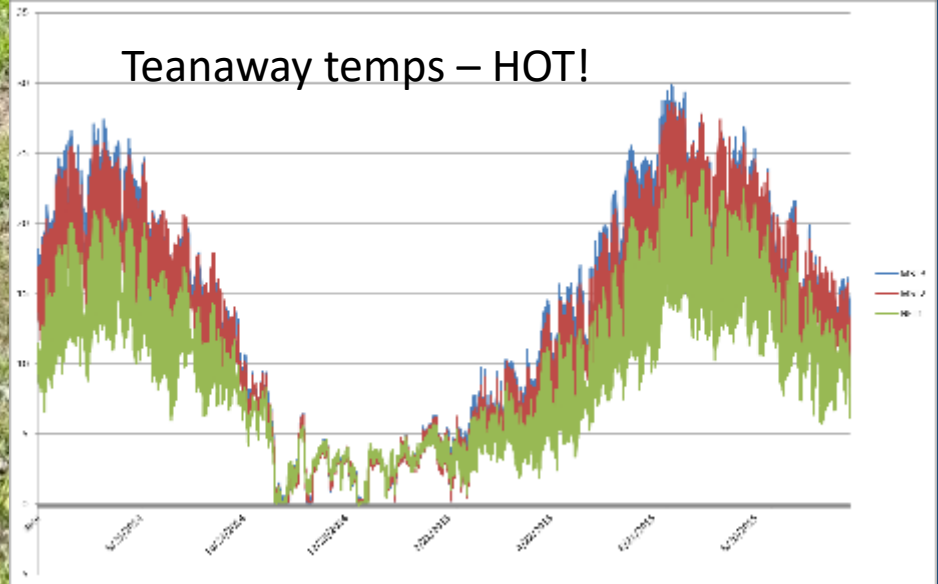
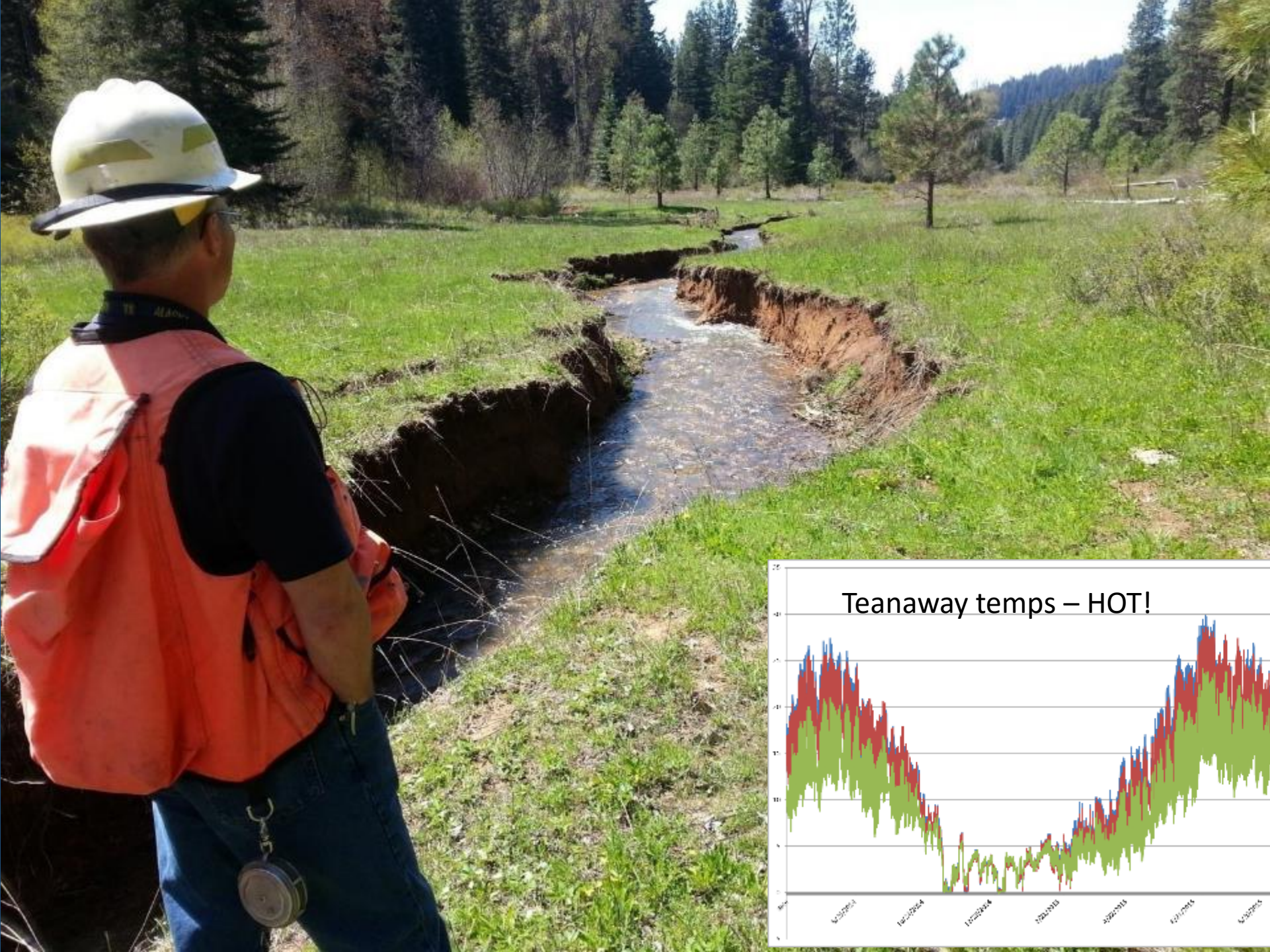
Logs along the North Fork spur waiting to be reloaded onto rail cars. Mid 1920s. (Photograph courtesy of Jack Whitnall.)

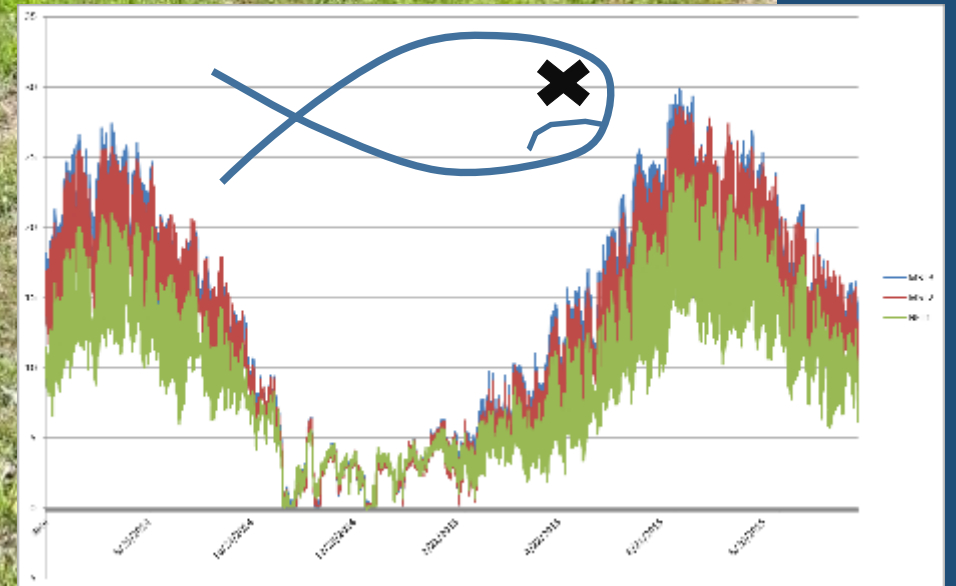
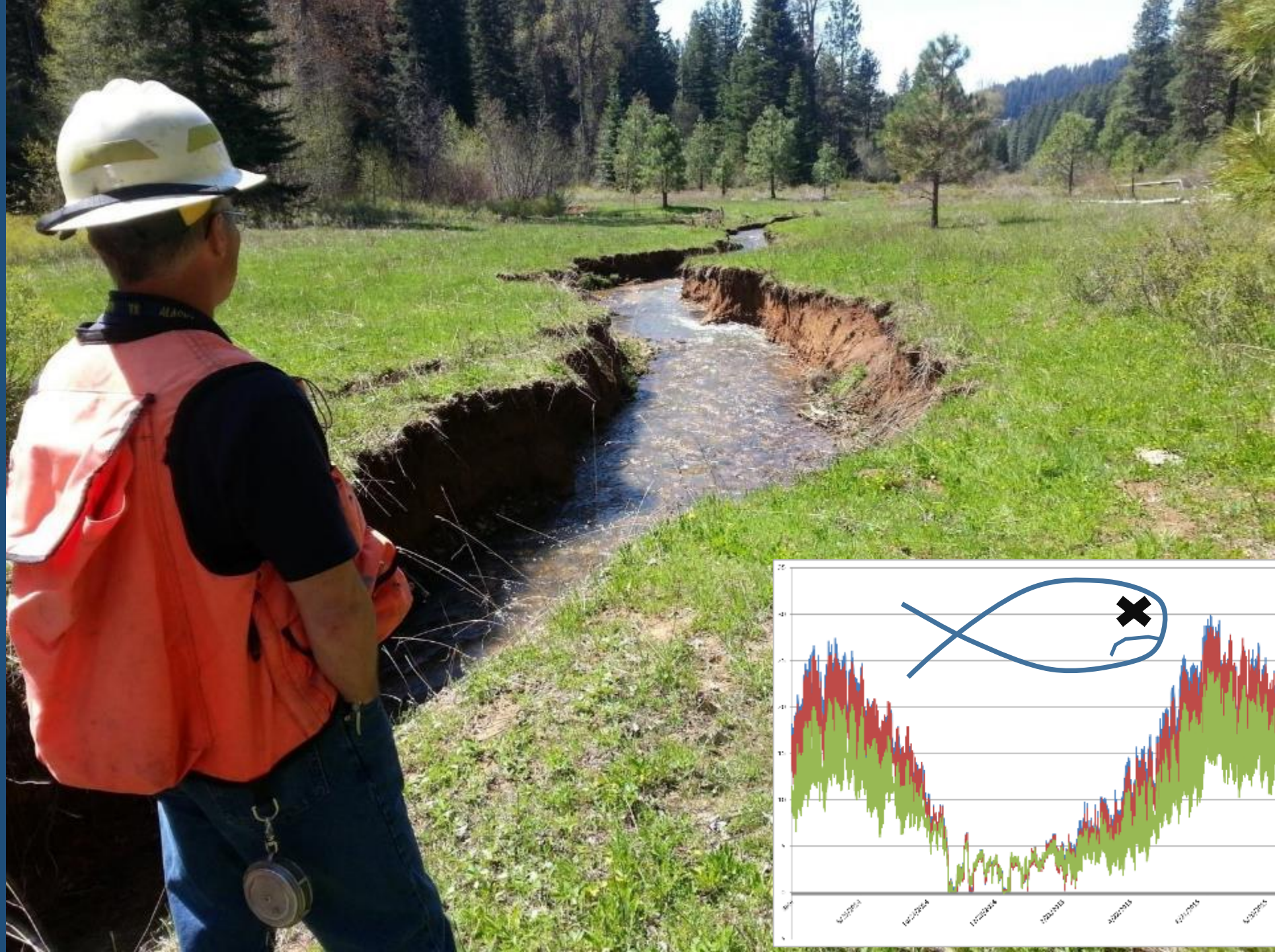


Natural Log Jam in Middle Fork Teanaway River, circa 1900,
Ponderosa forest on East slope of Cascades, Washington

Source: Russell, I. C. 1909. Rivers of North America. G.P. Putnam's Sons, New York. 327pp.
Figure B, Plate XII, page 239. (Scan by T. Abbe)















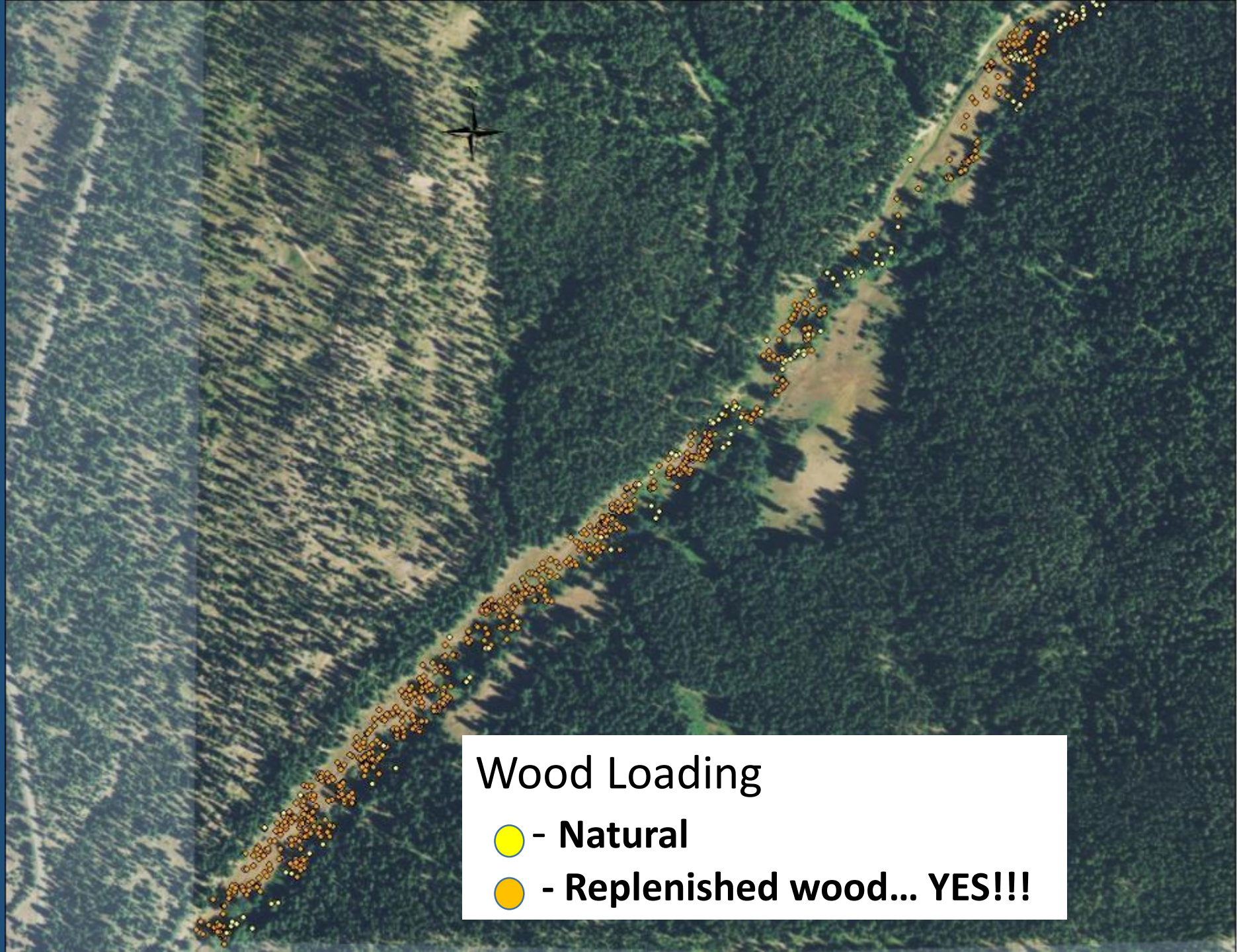






Wood Loading

● - Natural

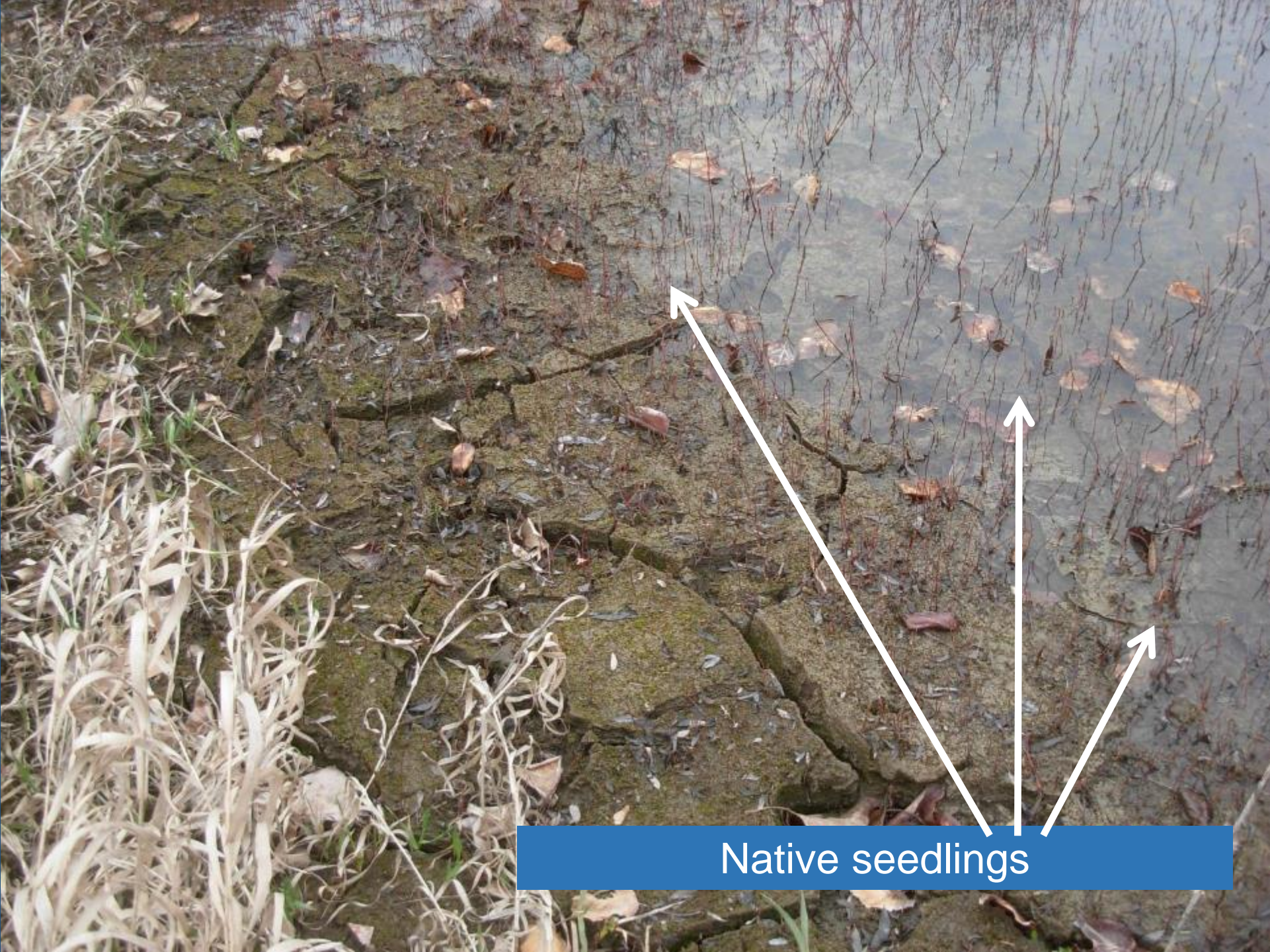


Wood Loading

● - Natural

● - Replenished wood... YES!!!





Native seedlings

Before Restoration (Dry)



snag

09.10.2010 12:00

Three Years Later





Yum Yum!

SB 5367 related to grazing:

**The plan must ensure consistency with Integrated
Plan principles, including:**

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“..... Protect and enhance the water supply...”

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“..... Maintain working lands while protecting key watershed functions and aquatic habitat...”

SB 5367 related to grazing:

The plan must ensure consistency with Integrated Plan principles, including:

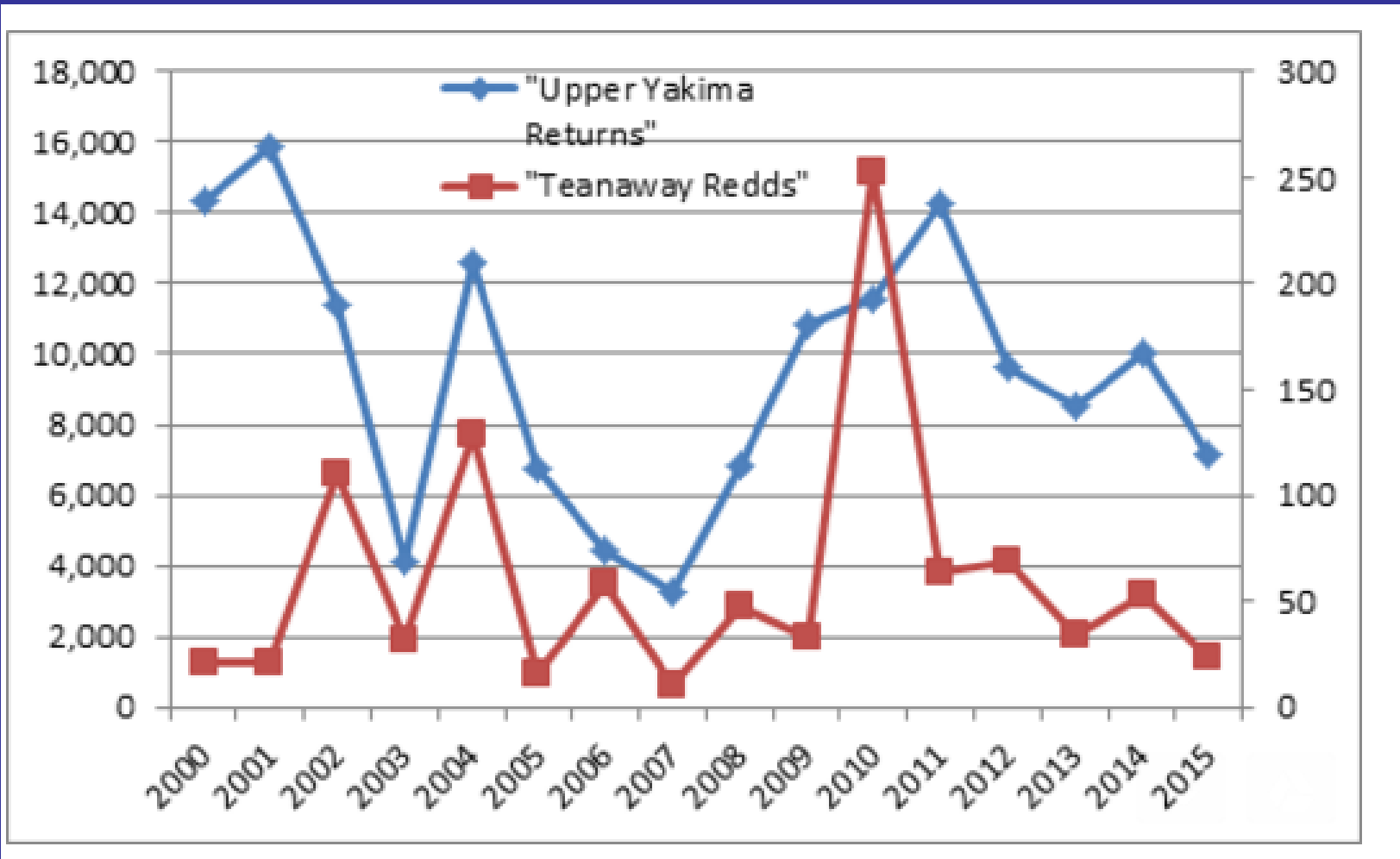
“..... Protect and enhance the water supply...”

“..... Maintain working lands while protecting key watershed functions and aquatic habitat...”

“Conserve and restore vital habitat for fish, including steelhead, spring chinook, and bull trout...”

Spring Chinook recovery









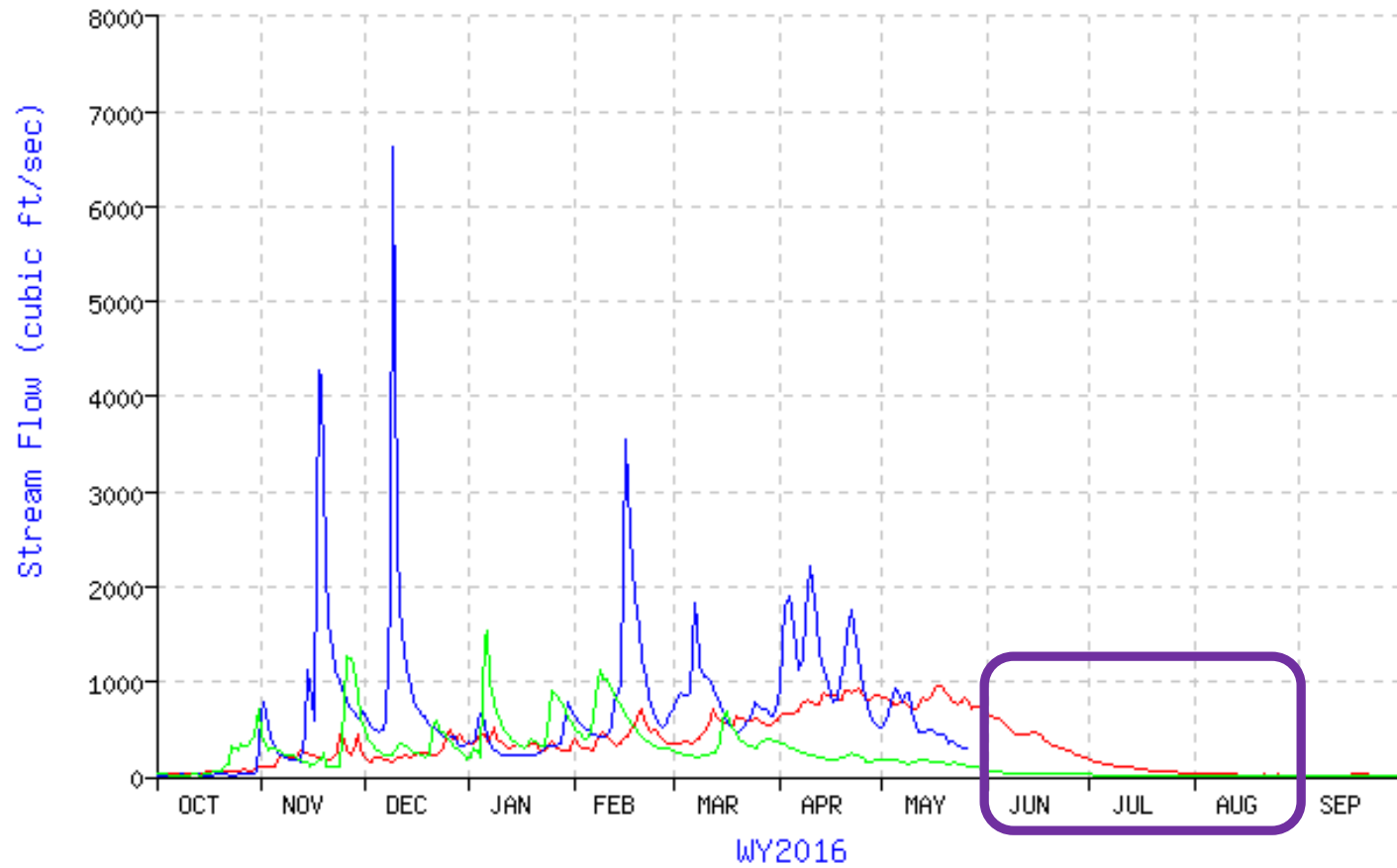
07/02/2003





Teanaway River at Forks near Cle Elum

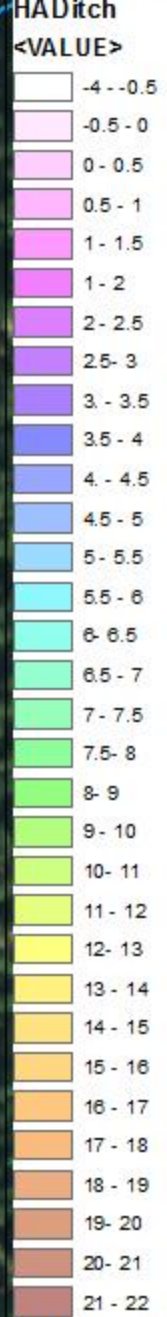
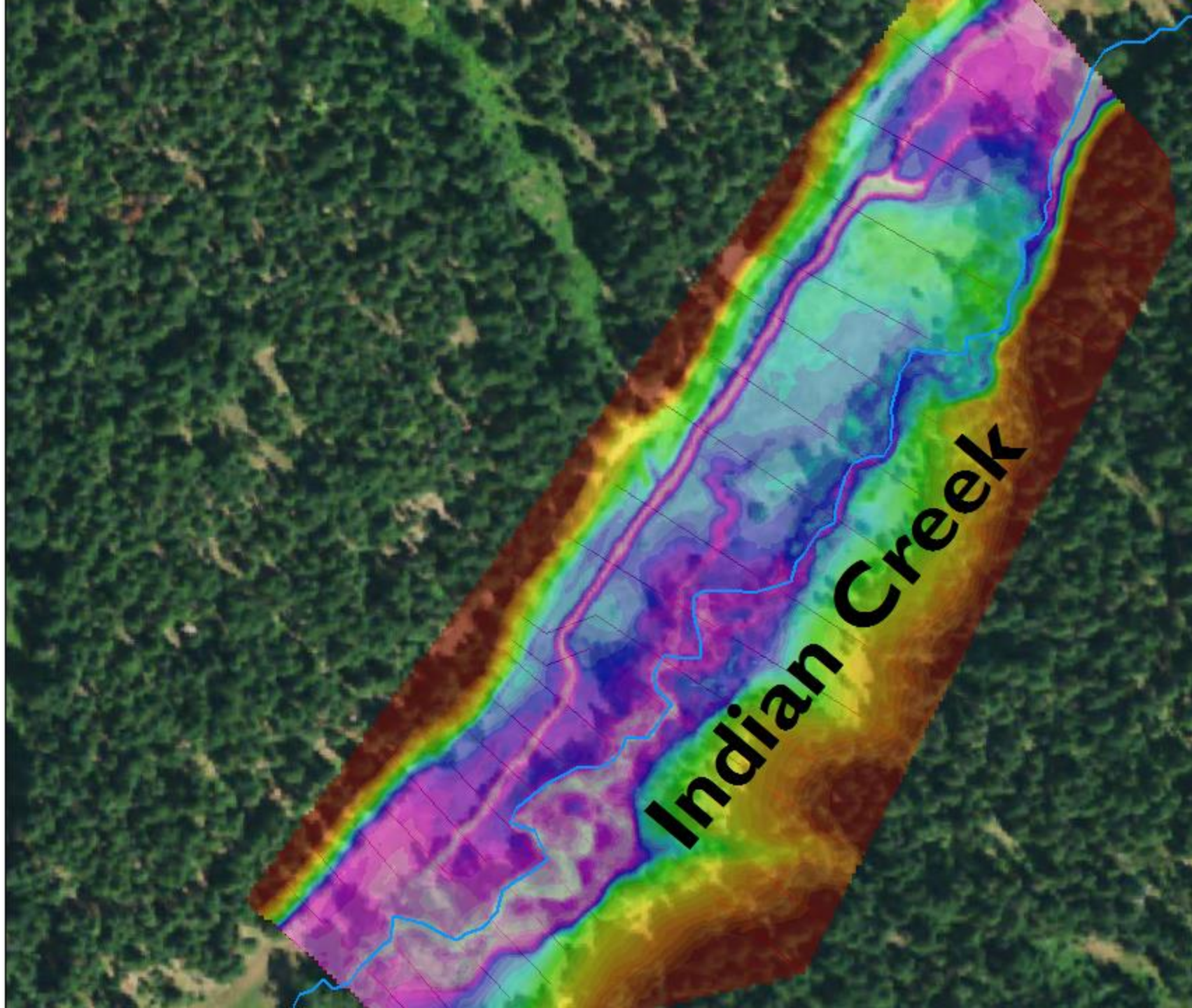
- Current Year
- Previous Year
- Average



05/26/2016 06:15







NAIP Washington_2015_1m

RGB
Red: Band_1





Teanaway Community Forest Aquatic Restoration Project 60% Design Report

Date:

Yakama Nation Fisheries-Yakima Klickitat Fisheries Program

Ryan DeKnikker

509-945-5389

rdkn@yakamafish.com

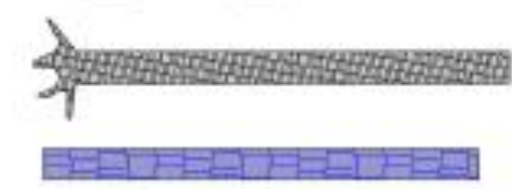
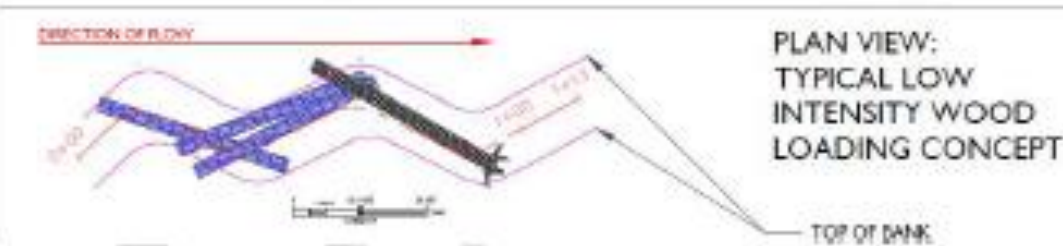
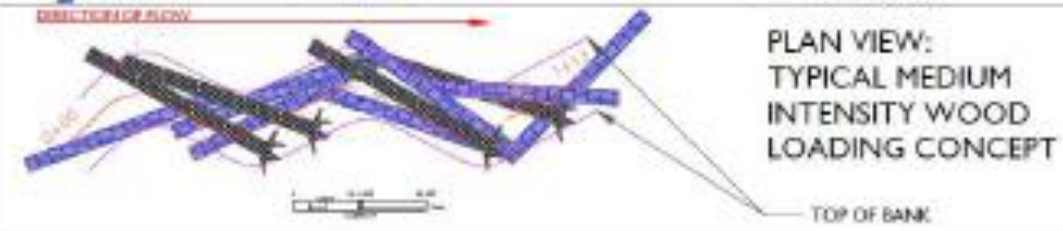
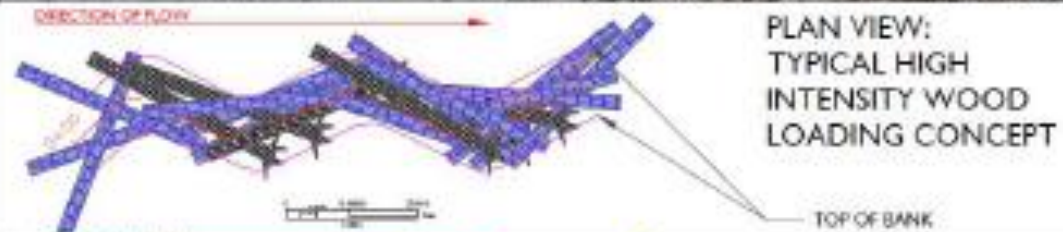


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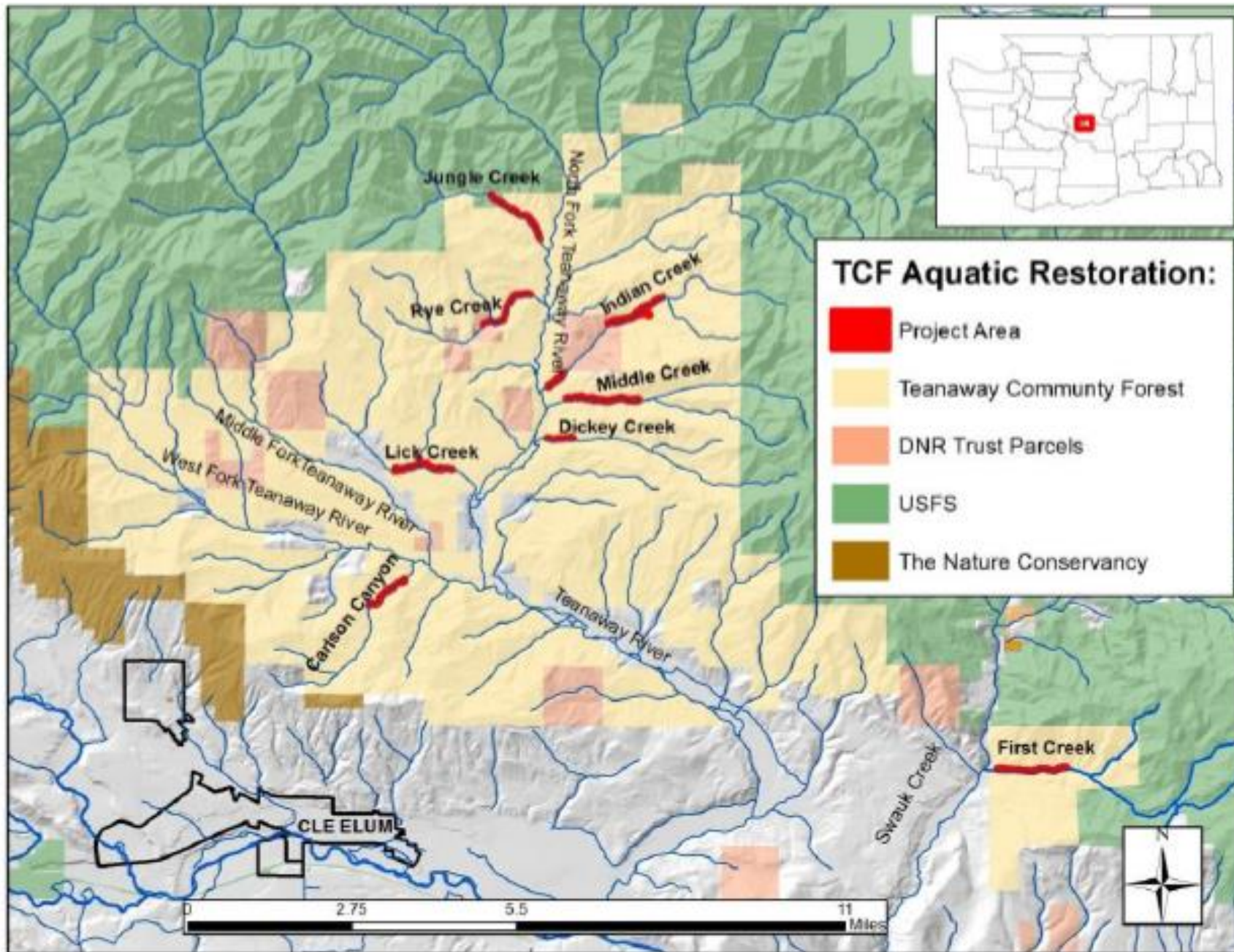


TYPICAL FLOODPLAIN WOOD LOADING CONCEPT



= 40' x > 14" DBH FIR
ROOTWAD

= 40' X 14" DBH FIR CUT
LOG



I'll Be Back...



- A few floodplain tidbits...

Restoring Floodplains at the Cosumnes River Preserve

Judah Grossman, Project Director
Rodd Kelsey, Lead Scientist

RESTORATION WEBINAR SERIES
SEPTEMBER 3, 2015





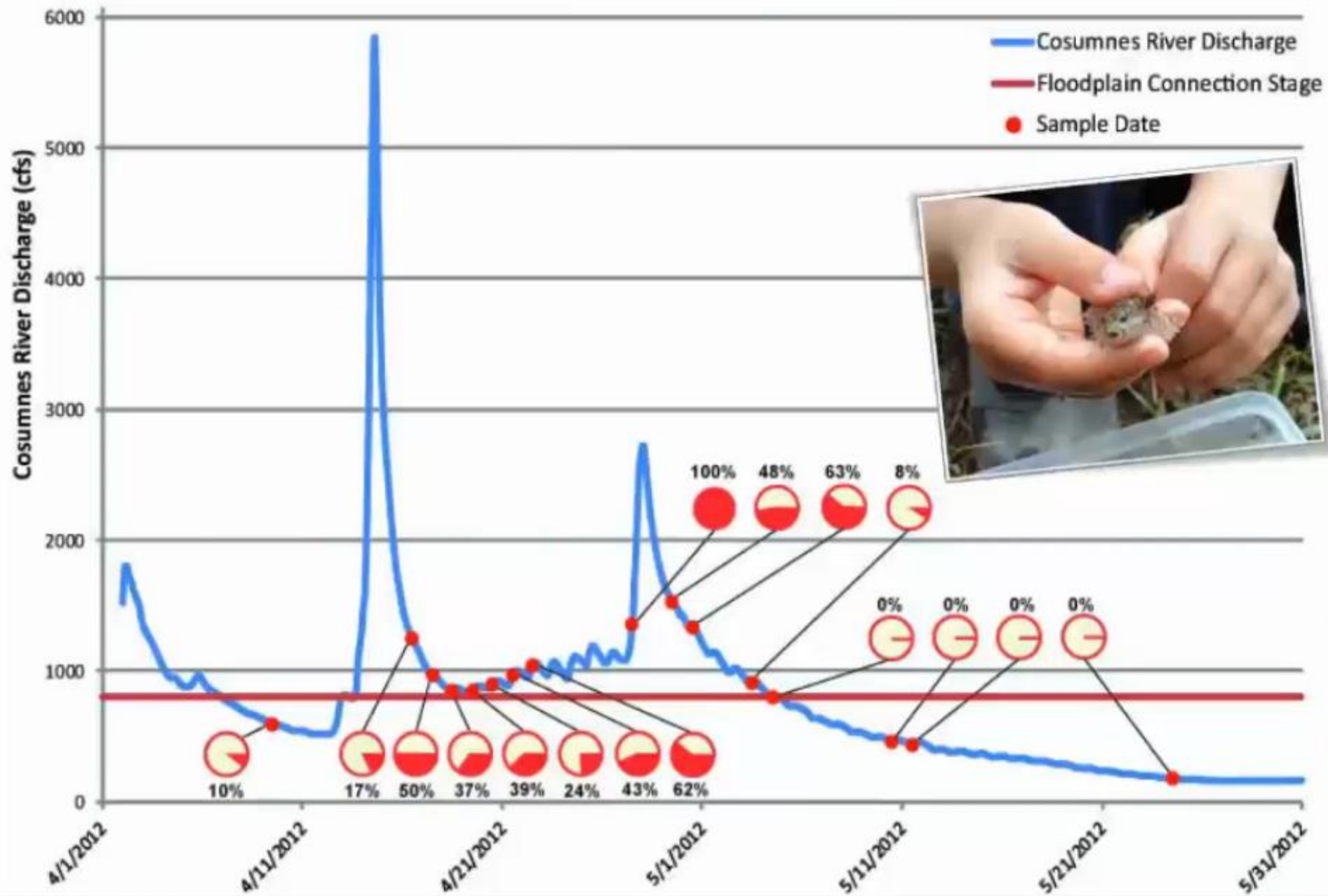
**A Reconnected
Floodplain**

C.A. Jeffres, J.J. Opperman, & P.B. Moyle

(Environmental Biology of Fishes, 2008)

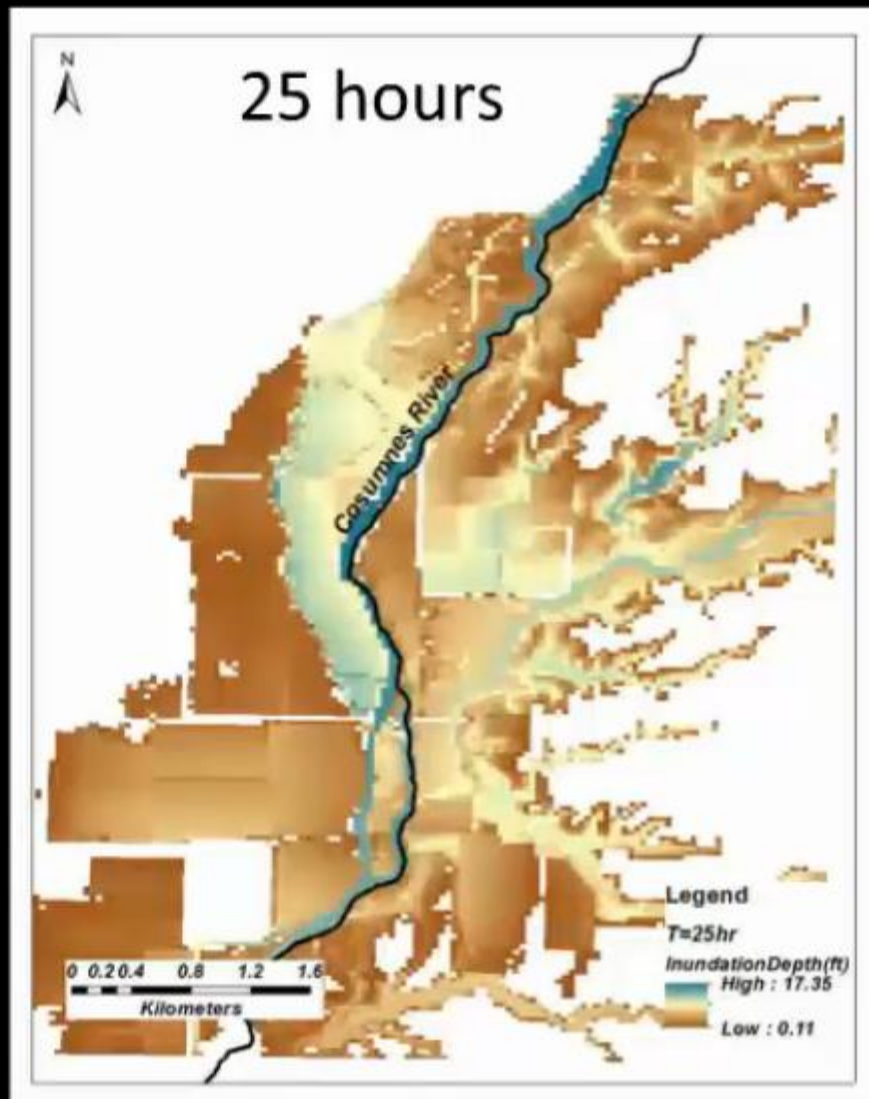


Percent Native Fish Leaving the Floodplain



February 2015: 300 Acre-feet of recharge

Press Esc to exit full screen mode.



Thanks for your
time!

