



# A Native Plant Restoration Project on the Former Condit Reservoir

White Salmon River

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Honor. Protect. Restore.

# Overview

- Brief history of project
- Project goals
- Site conditions and challenges
- Approach and implementation
- Learning opportunities



Photo: Jeanette Burkhardt

# Project history



# Project Goals

- Reestablish diverse assemblages of native woody shrubs & trees
- Reintroduce culturally important plant species
- Involve community to promote ongoing stewardship



# Northwestern Reservoir Restoration

## Site conditions

- Elevation
- Precipitation zone
- Temperatures
- Unknowns



# Soils

- Inundated for 100 years
- Accumulated sediments 10-20 ft deep
- Deposits removed down to original soils
- Salvaged clays



# Soils

## Exposed soils

- Loamy sands
- Extremely low pH
- High sulphur
- High iron
- Extremely low microbial activity

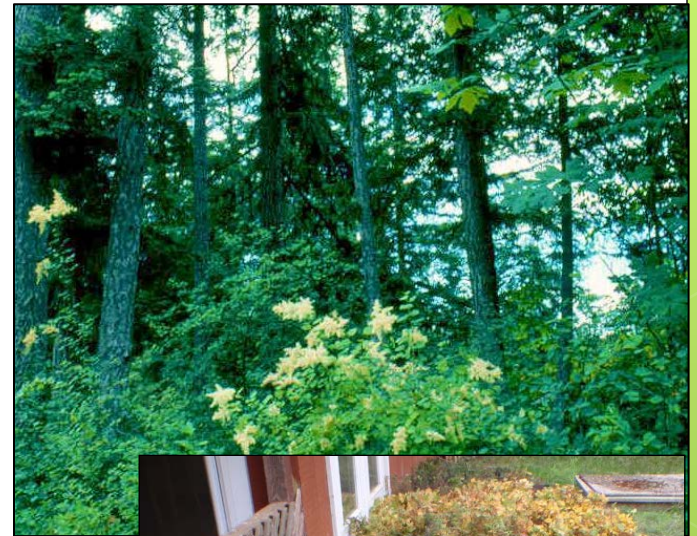


# Planting design

- Hardy trees and shrubs
- Key trees required in PC's revegetation plan
- Spacing and expected mortality
- 7400 native plants of 31 species

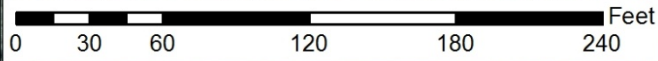
## Local genetic material



- Collected and custom grown
- Managing plant orders





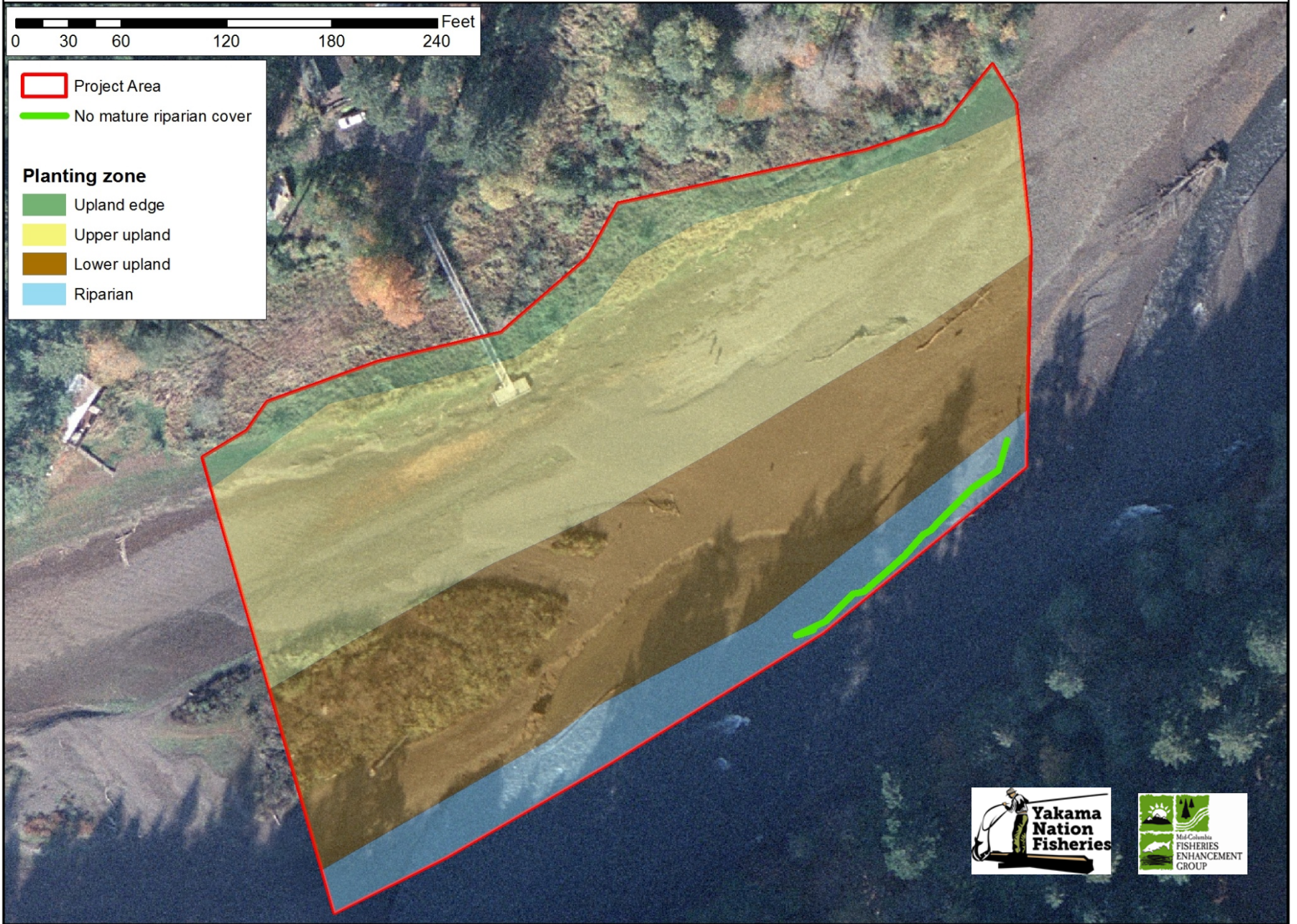
# Condit Dam Restoration -- Planting Design



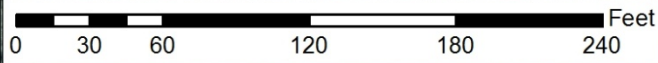
-  Project Area
-  No mature riparian cover

## Planting zone

-  Upland edge
-  Upper upland
-  Lower upland
-  Riparian



# Condit Dam Restoration -- Planting Design



- Project Area
- No mature riparian cover

Plan

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# Planting methods

- Hand crews
- Wood chip mulch
- Tube protectors

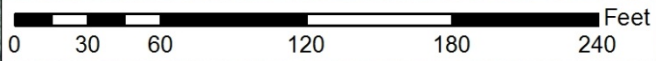


# Planting methods

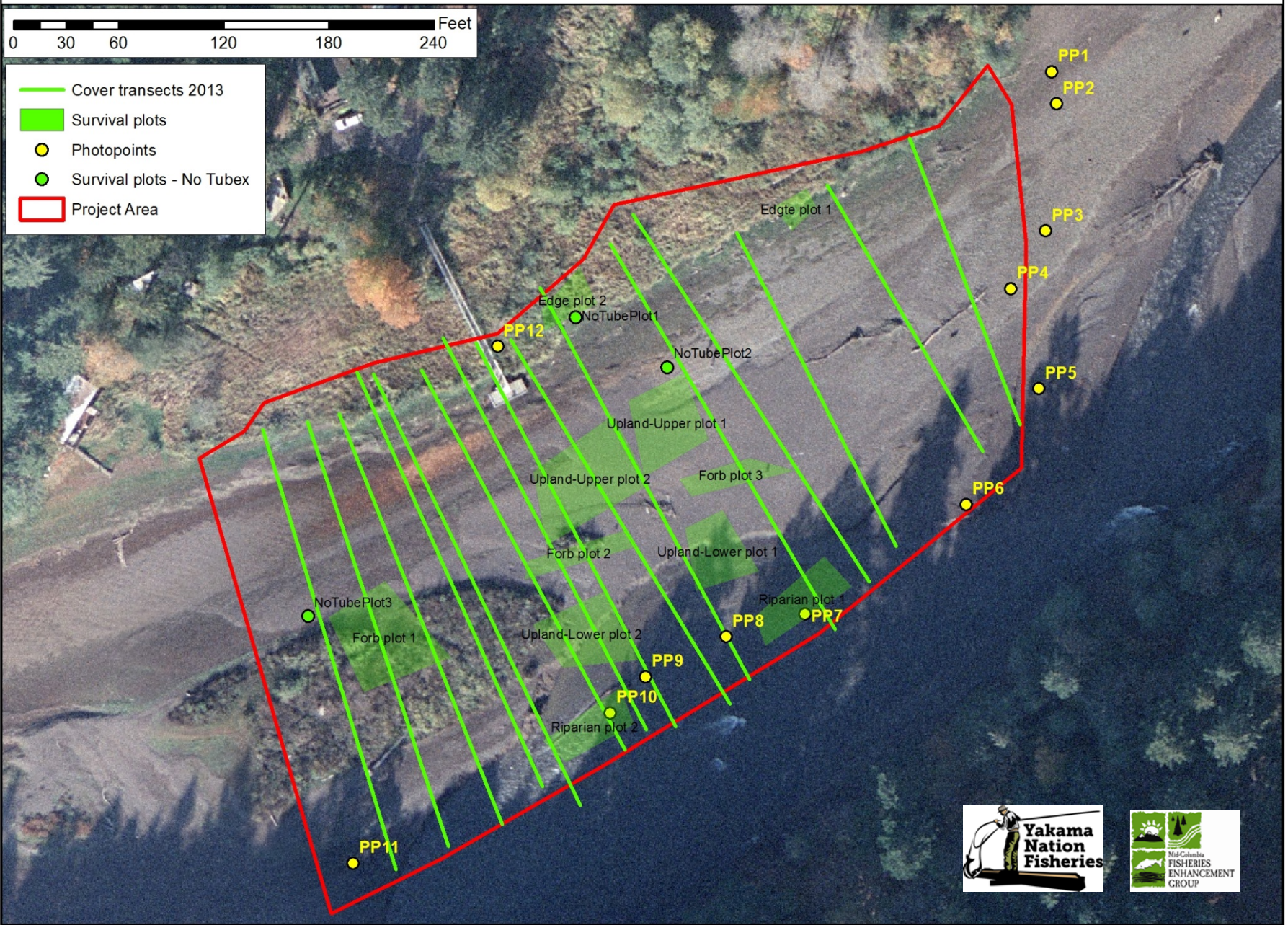
- Soil amendments
  - Dolomite
  - Native forest soil
  - Fungi



# Condit Dam Restoration -- Monitoring



- Cover transects 2013
- Survival plots
- Photopoints
- Survival plots - No Tubex
- Project Area



# Cultural plant species

## Forbs (mostly *Lomatium*)

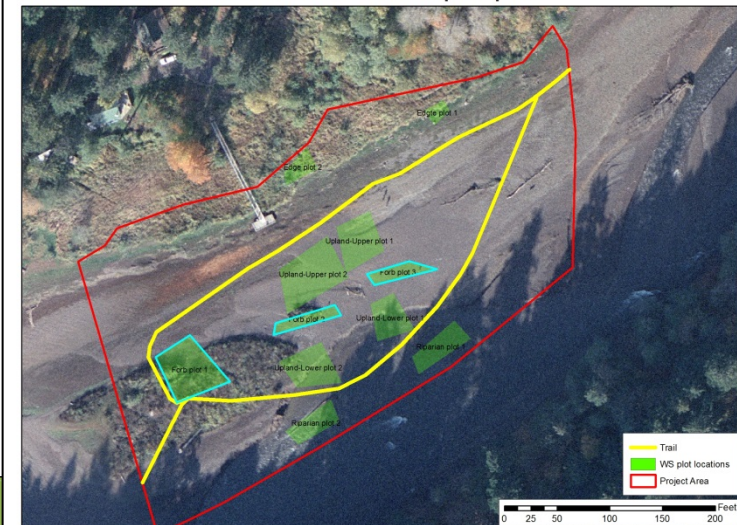
- Atypical, ephemeral component
- Planted in plots to increase survival

## Shrubs

- including chokecherry and whitebark raspberry



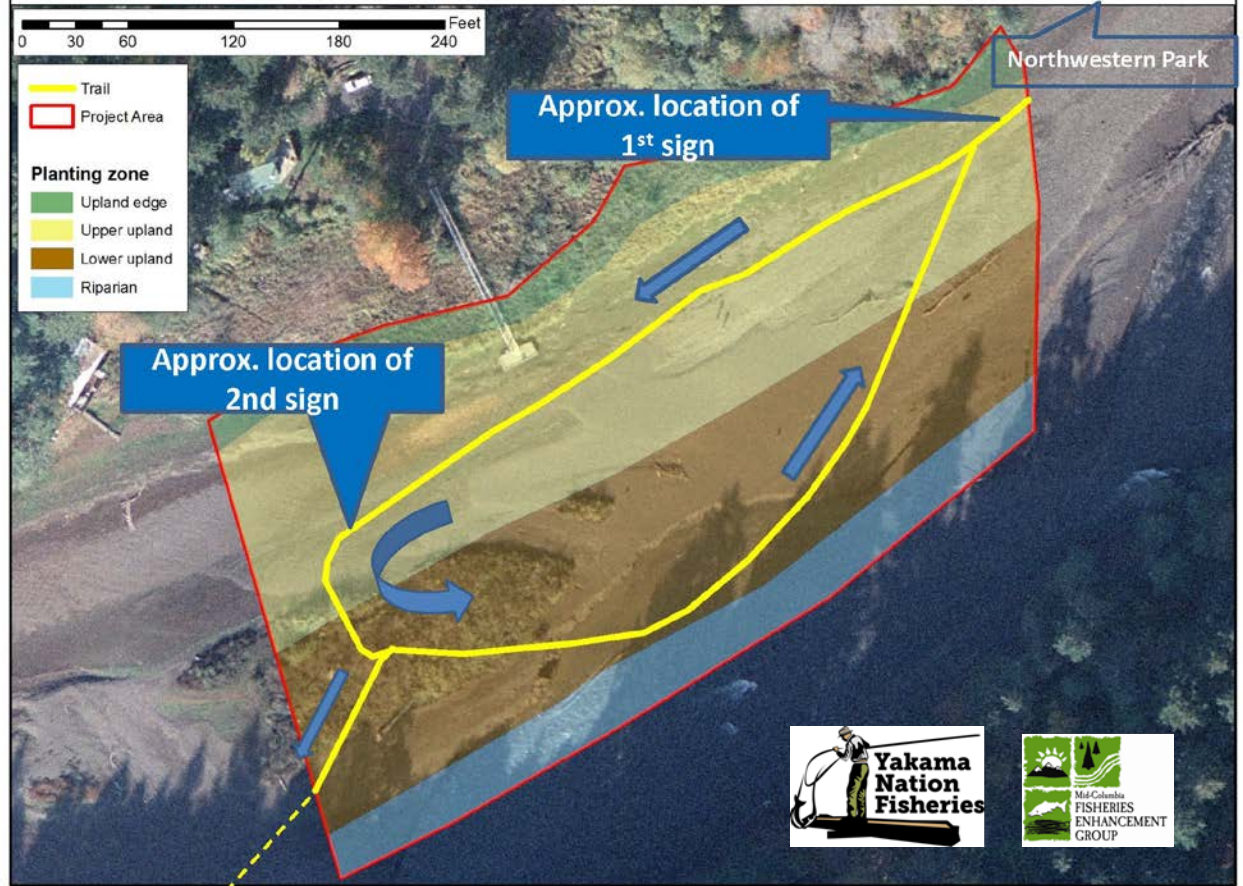
Northwestern Reservoir Restoration - Cultural plant plots



# Community involvement



Condit Dam Restoration -- Trail



# Unexpected challenges

- Tube protector blow-down
- Frost-heave
  - →Hydrologic + soil conditions?





# Succession & thanks

- Mid-Columbia Fisheries Enhancement Group
- PacifiCorp

- Ecotrust
- Columbia High School
- Underwood Conservation District
- Native Plant Societies of Oregon and Washington
- YN Wildlife and Fisheries
- World Class Academy
- ATLAN
- Mt. Adams Institute
- Cabinowners of NW Lake Association
- Scores of volunteers!

