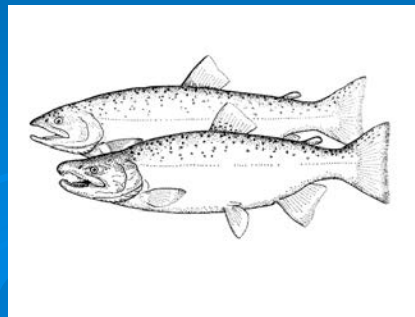


Yakima Side Channels Project

Habitat for Fish

Kelly Larimer
YKFP Habitat Biologist

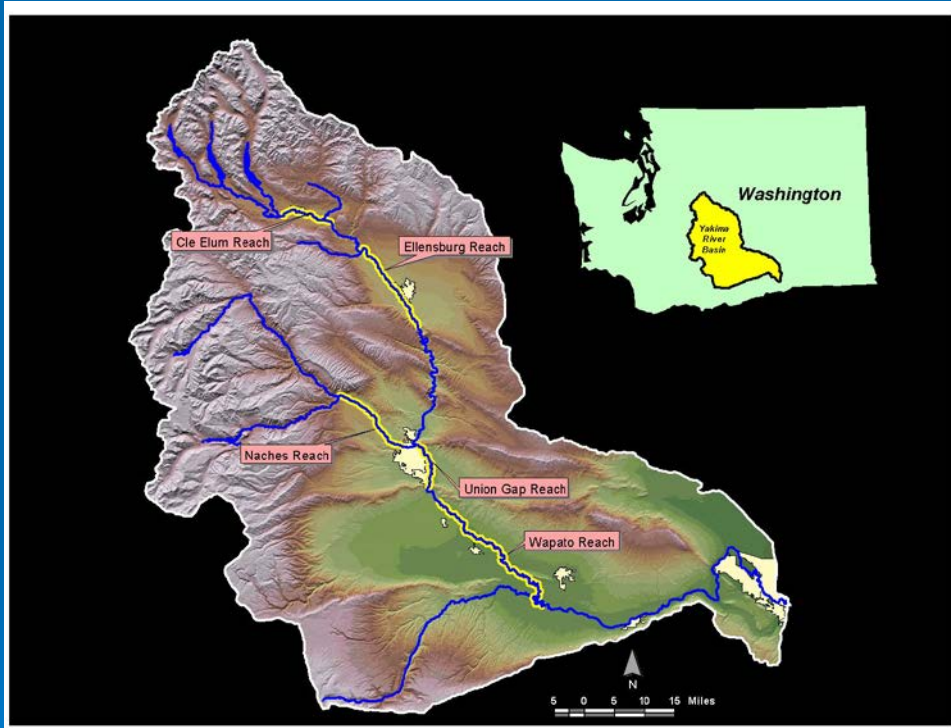


Project: 1997-051-00

Yakima Side Channels

- The Yakima Side Channels (YSC) Project was initiated in '97 and is co-managed by WDFW and the Yakama Nation as part of the Yakima-Klickitat Fisheries Project (YKFP).

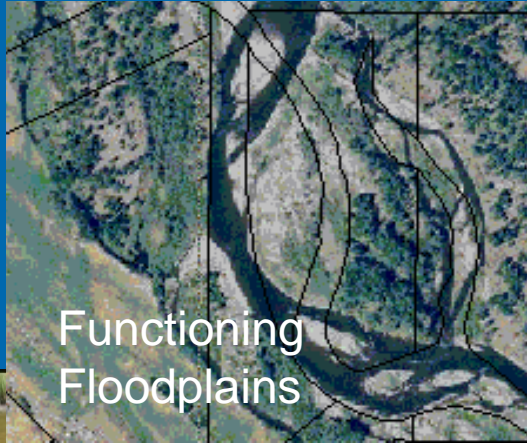
- The project's aims to protect high value floodplain containing healthy and functional side channel, wetland, and riparian forest habitats.



Priority Reaches –Easton/Cle Elum, Kittitas, Naches, Union Gap, & Lower Naches

The Bigger Picture

Past Landscape



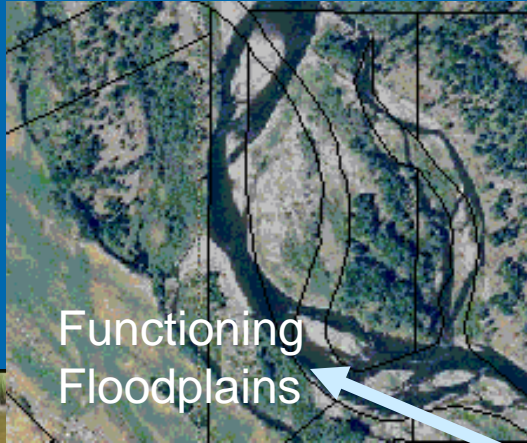
Current Situation



The Bigger Picture

Past Landscape

Current Situation



YSC Acquisition Criteria

You can't have fish and wildlife without habitat.

- We follow a directed approach:
 - willing seller
 - high value habitat quality and quantity
 - prime spawning and/or rearing habitat
 - critical habitat for listed Mid-Columbia steelhead
- Preference to properties that have a water right, and/or are adjacent to protected lands.



Runacres Property near Easton

YSC Project Success



Scatter Creek Side Channel near
Cle Elum.

- **Protected ~976 acres** of high value habitats in five priority reaches.
- YSC has generated over **\$1.5 million** in matching, non-BPA funds for habitat acquisitions.
- Partnered on several restoration projects (e.g., Hanson Ponds, Holmes).

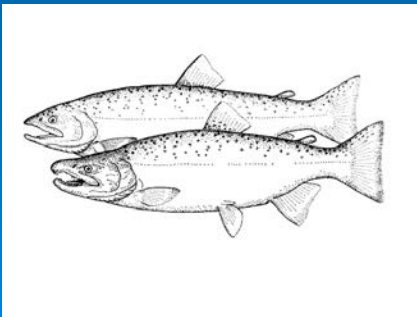
YSC Project Status



Dixon Property near
Cle Elum

- **Phase 1 Goal:**
Protect a total of 2,000 acres of the most productive mainstem and side channels
- Complete studies and restoration activities on key floodplain reaches.

Acquisitions: What YSC has protected & What we aim to protect by 2009

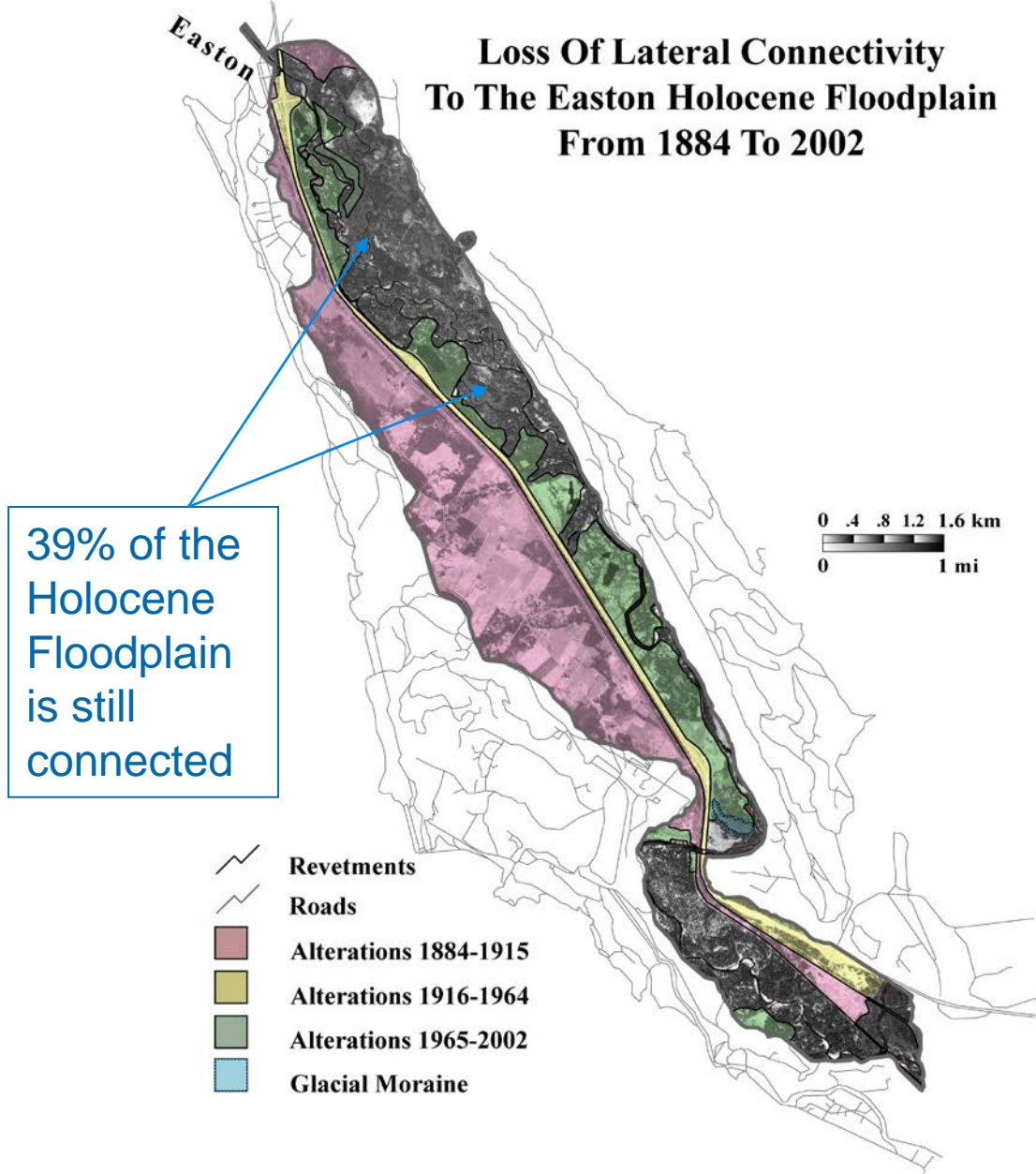


Priority Floodplains:

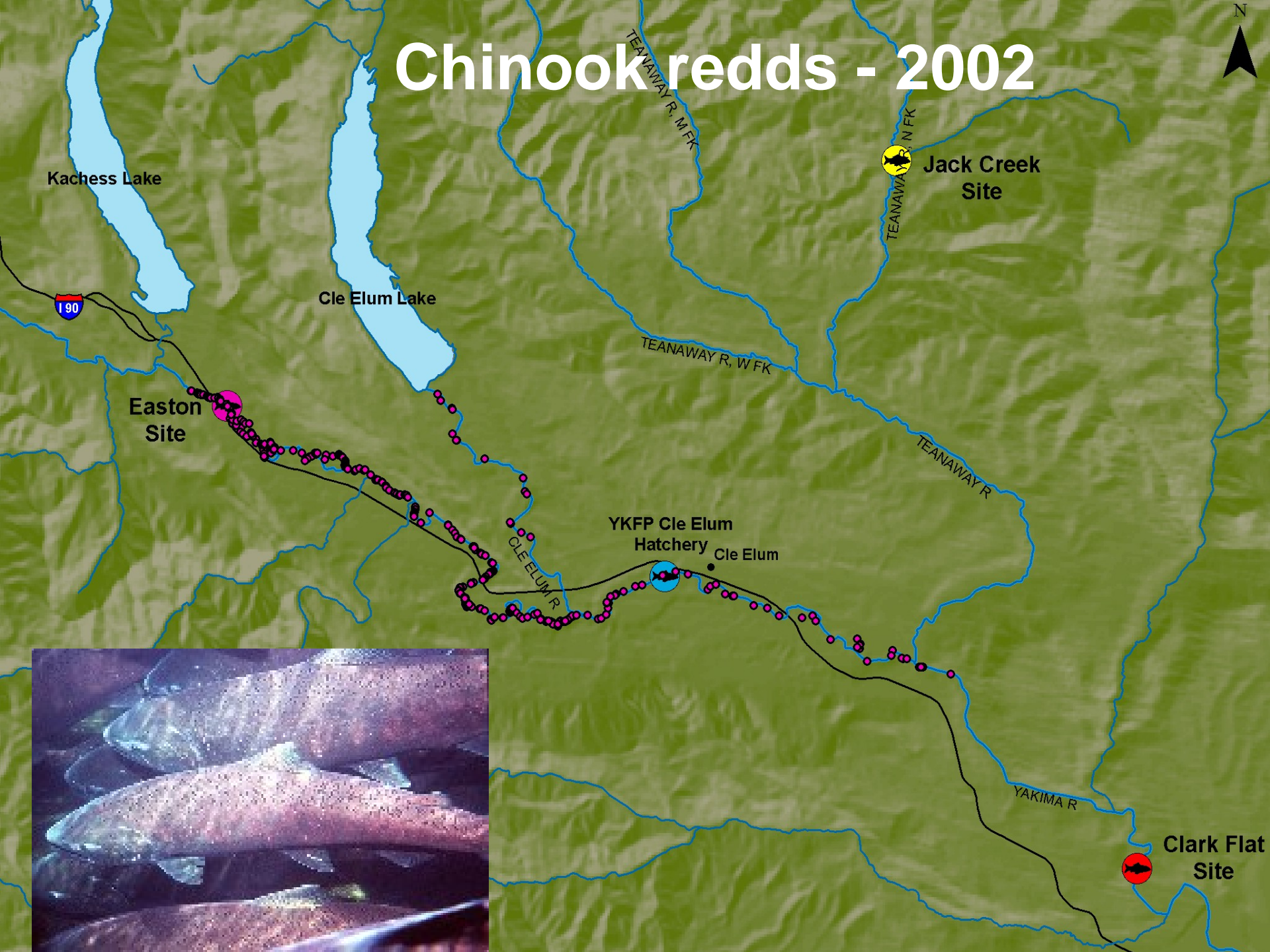
- Easton
- Cle Elum
- Lower Naches

Easton Floodplain

Loss Of Lateral Connectivity To The Easton Holocene Floodplain From 1884 To 2002

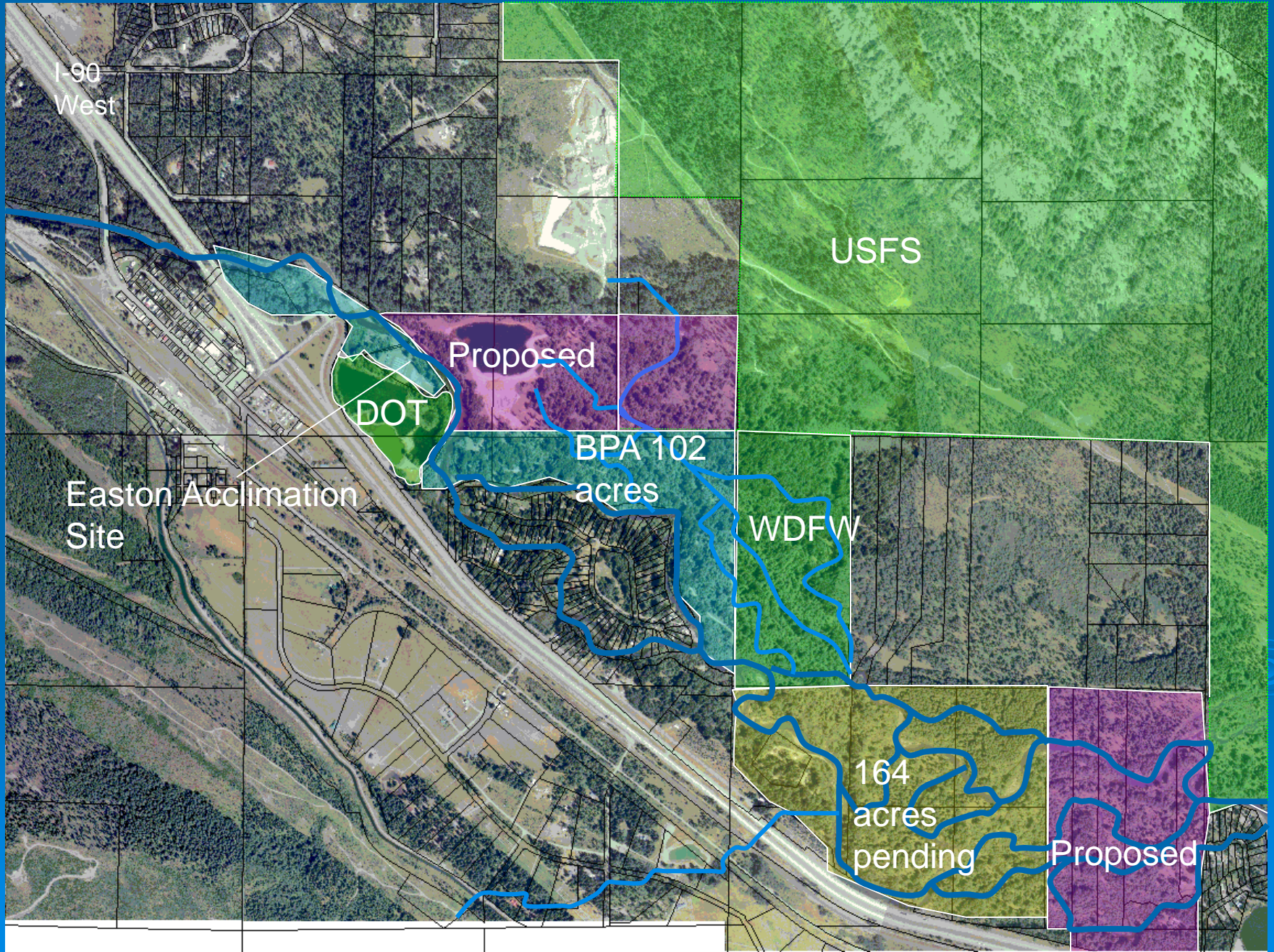


Chinook redds - 2002

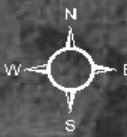


Clark Flat Site

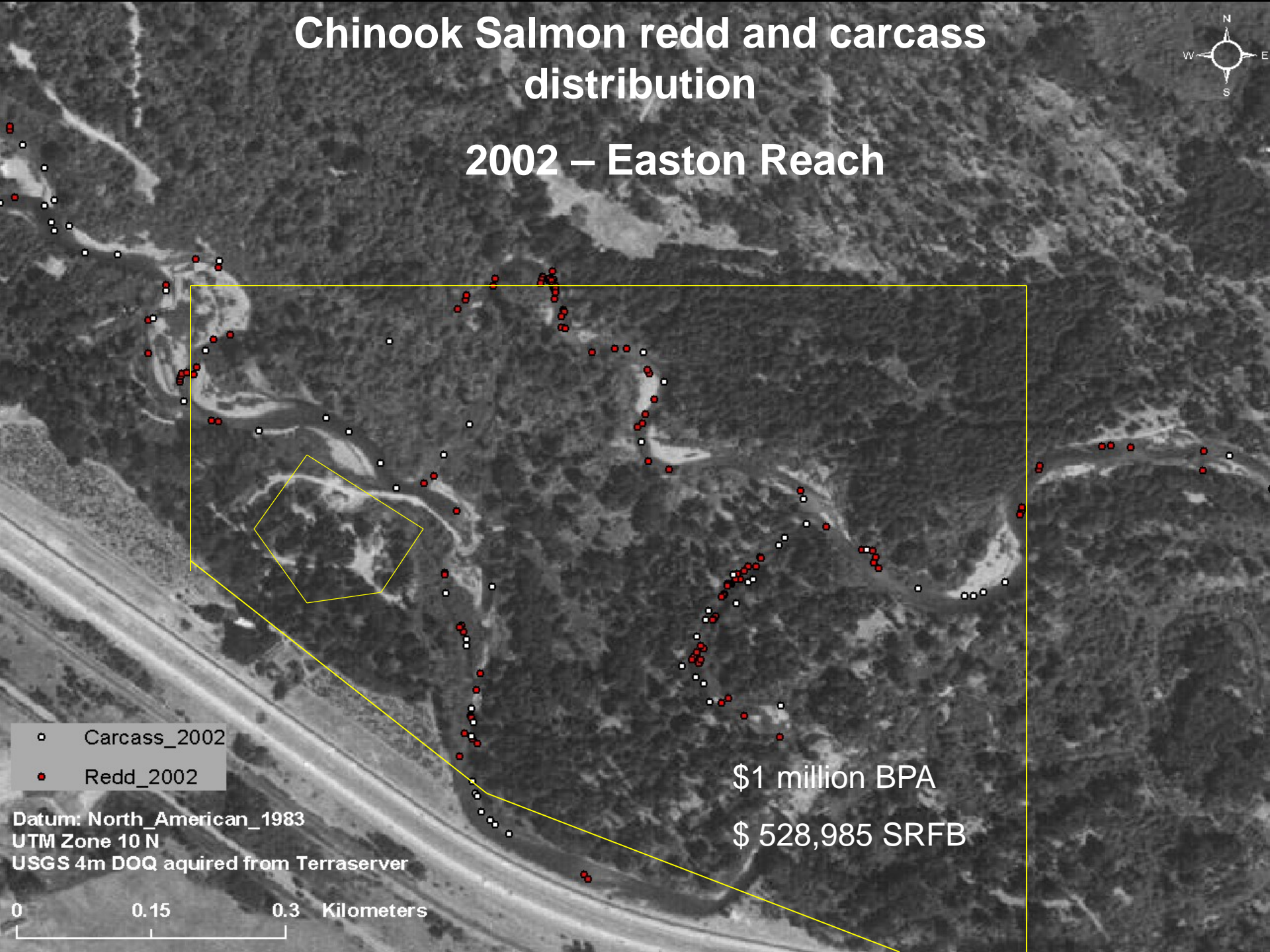
Easton Reach



Chinook Salmon redd and carcass distribution



2002 – Easton Reach



- ◻ Carcass_2002
- ◼ Redd_2002

Datum: North_American_1983
UTM Zone 10 N
USGS 4m DOQ aquired from Terraserver

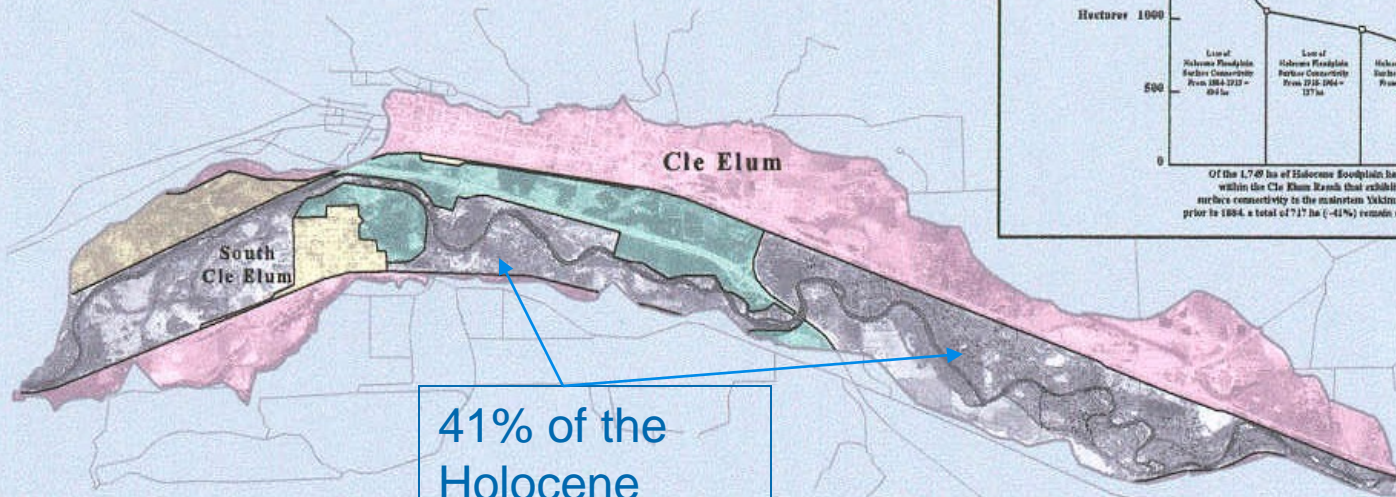
\$1 million BPA

\$ 528,985 SRFB

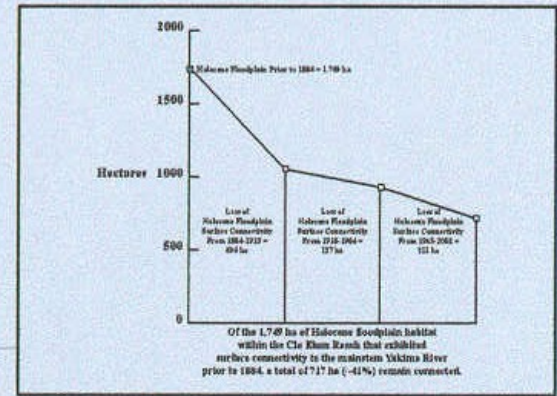
0 0.15 0.3 Kilometers

Cle Elum Floodplain Reach

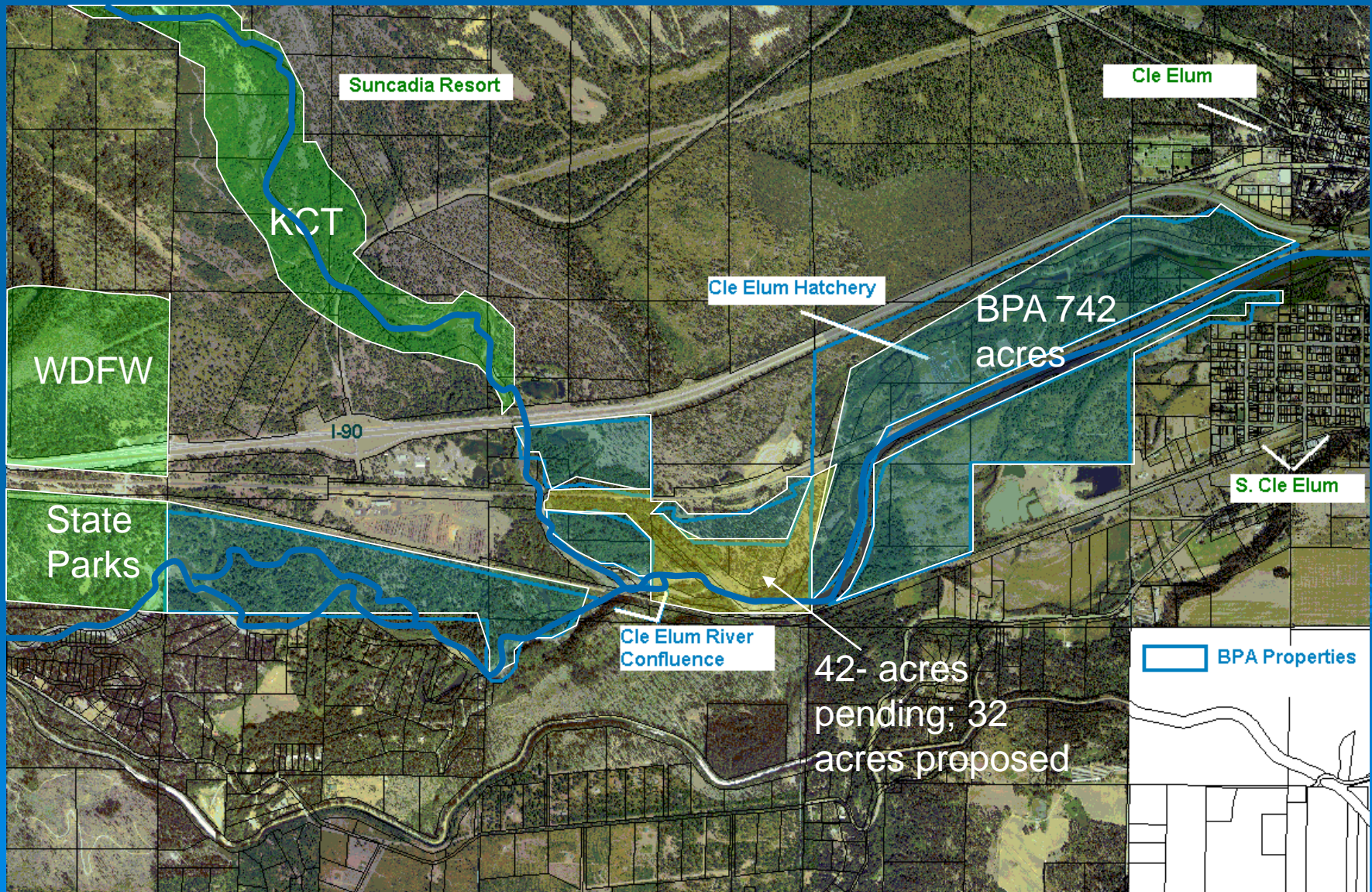
Loss of Lateral Connectivity To The Cle Elum Holocene Floodplain From 1884 To 2002



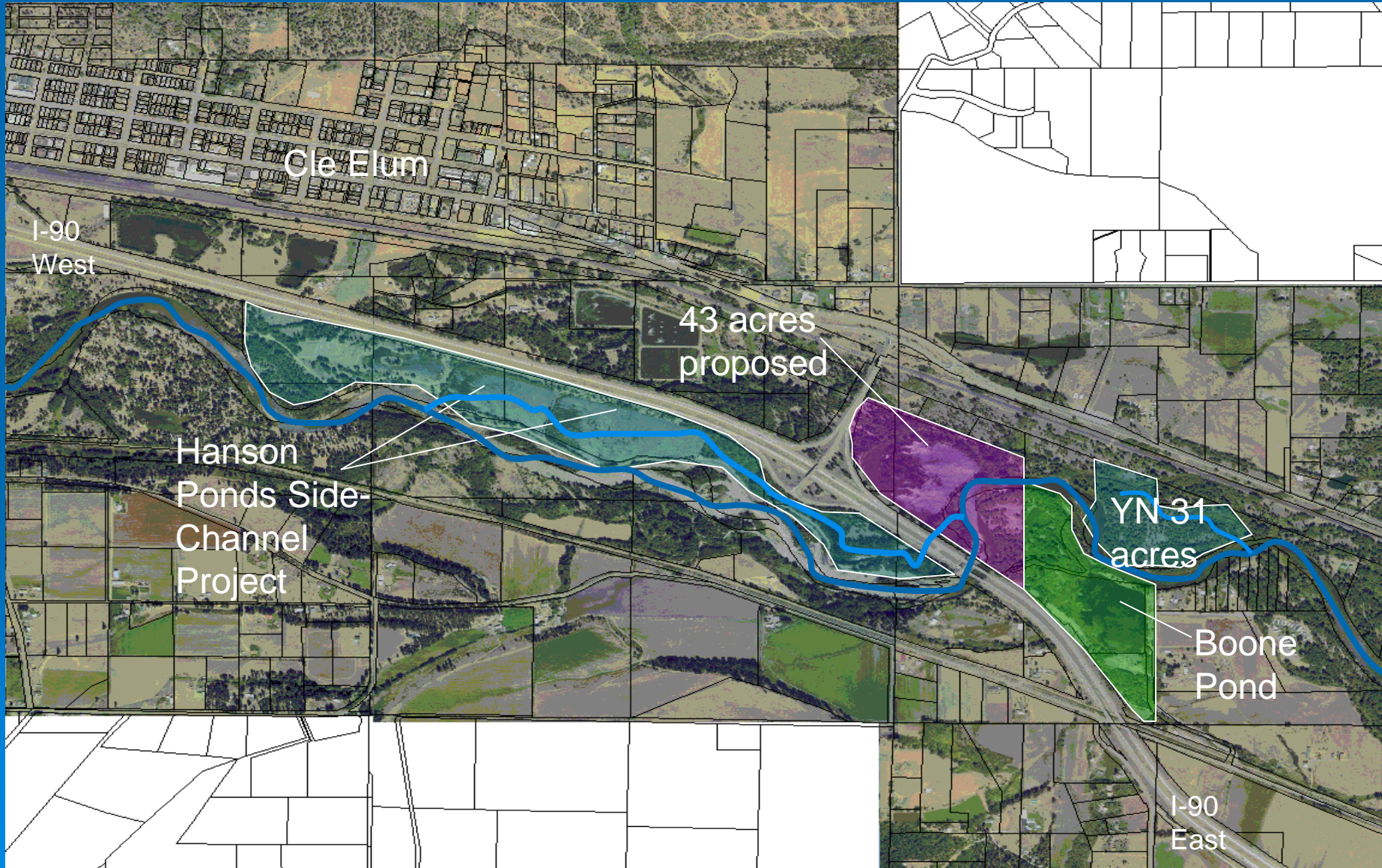
- Revetments
- Roads
- Alterations 1884-1915
- Alterations 1916-1964
- Alterations 1965-2002



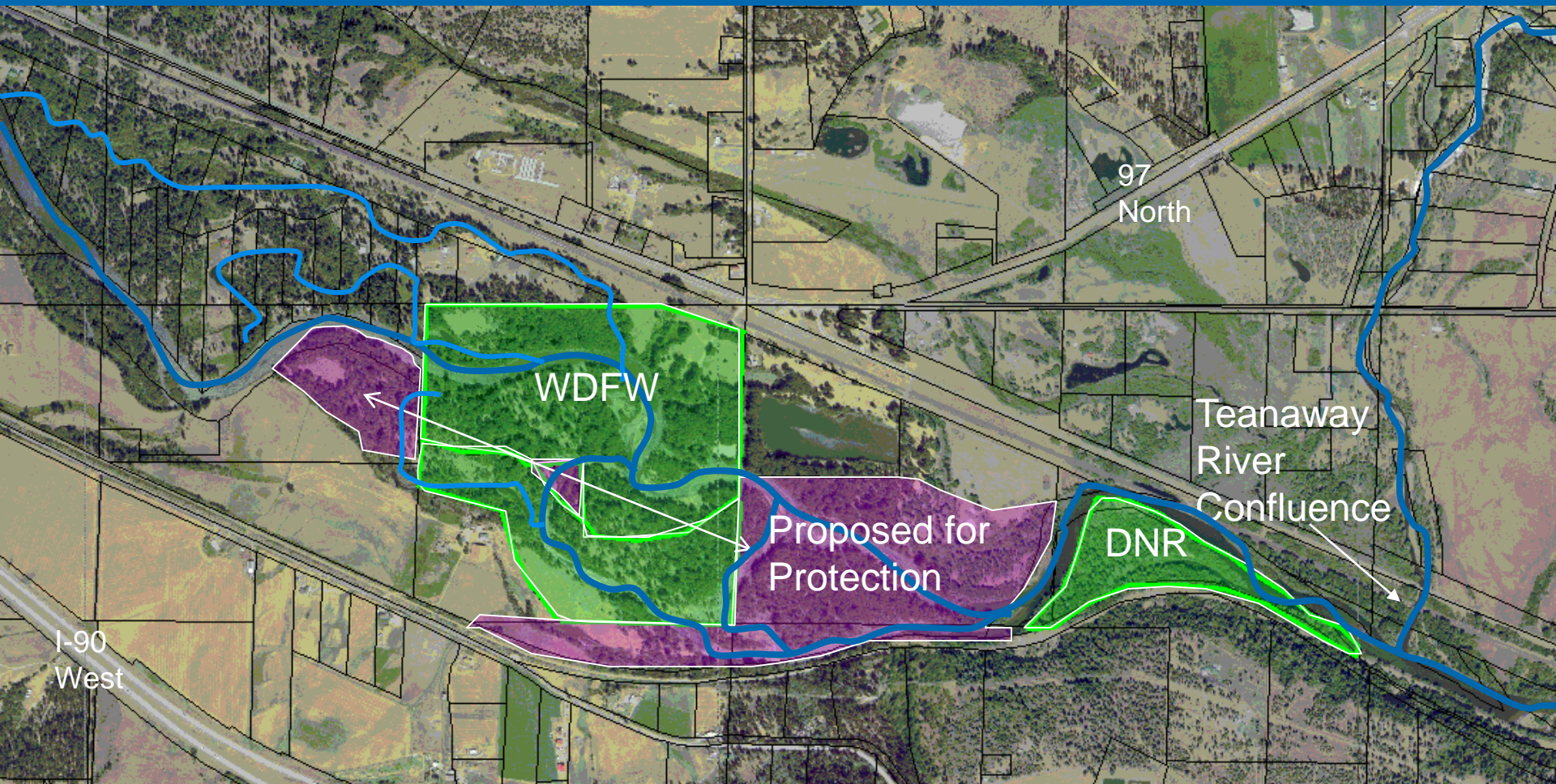
Cle Elum Reach Properties



Cle Elum Reach Properties cont.

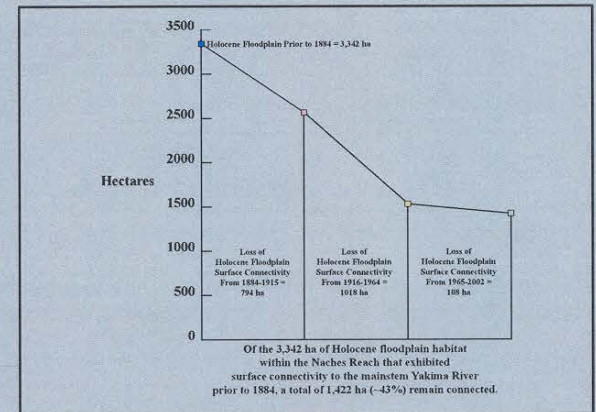
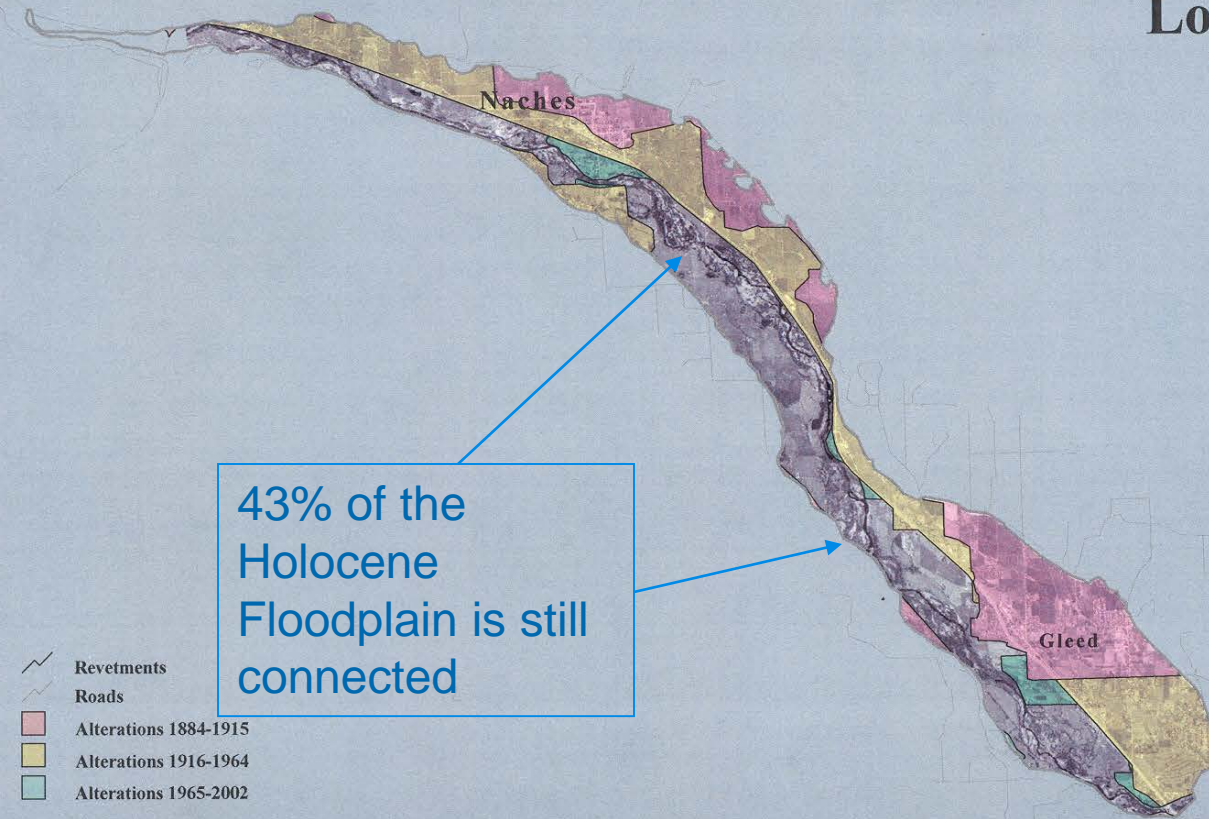


Lower Cle Elum Reach

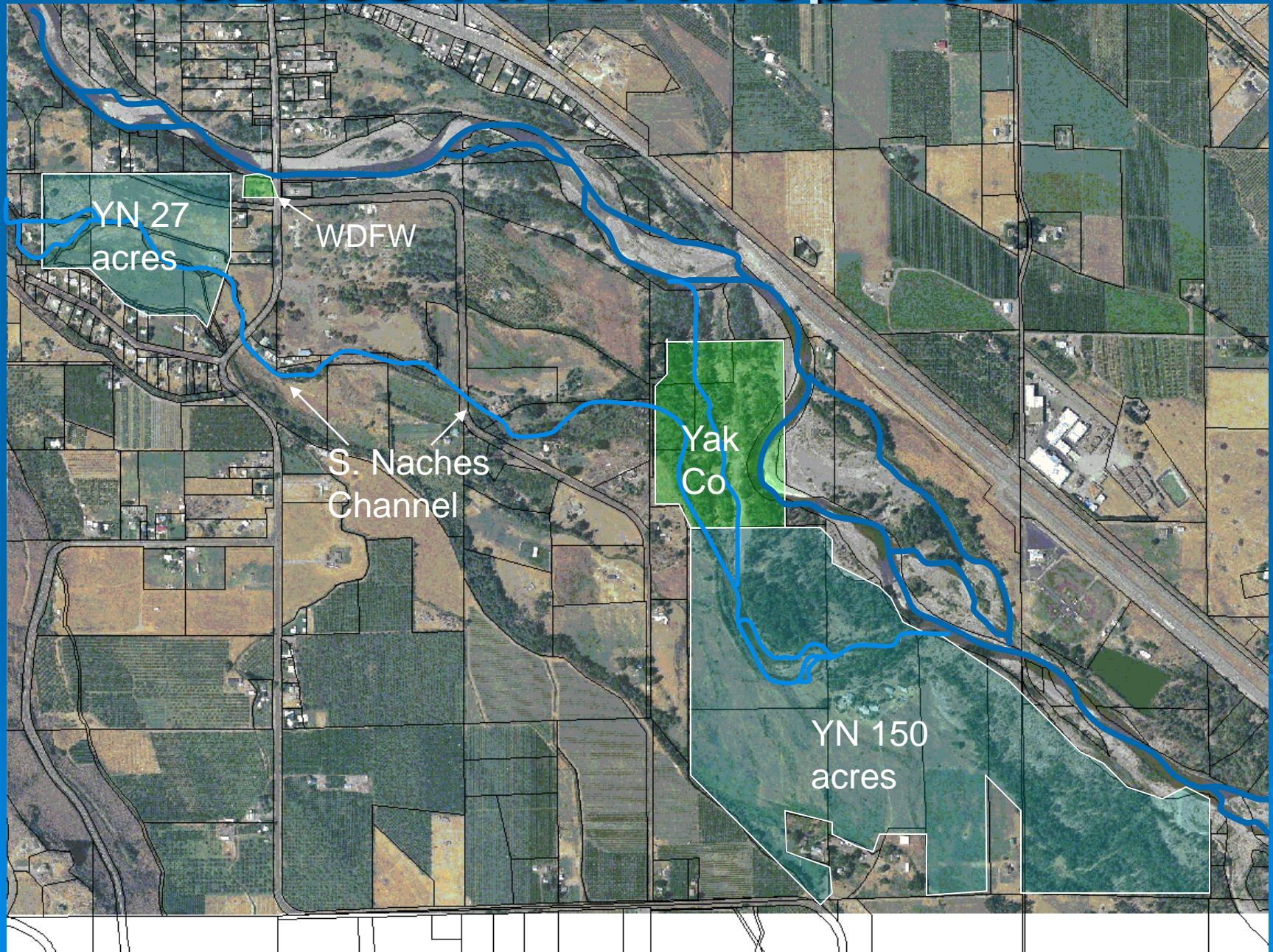


Lower Naches Floodplain

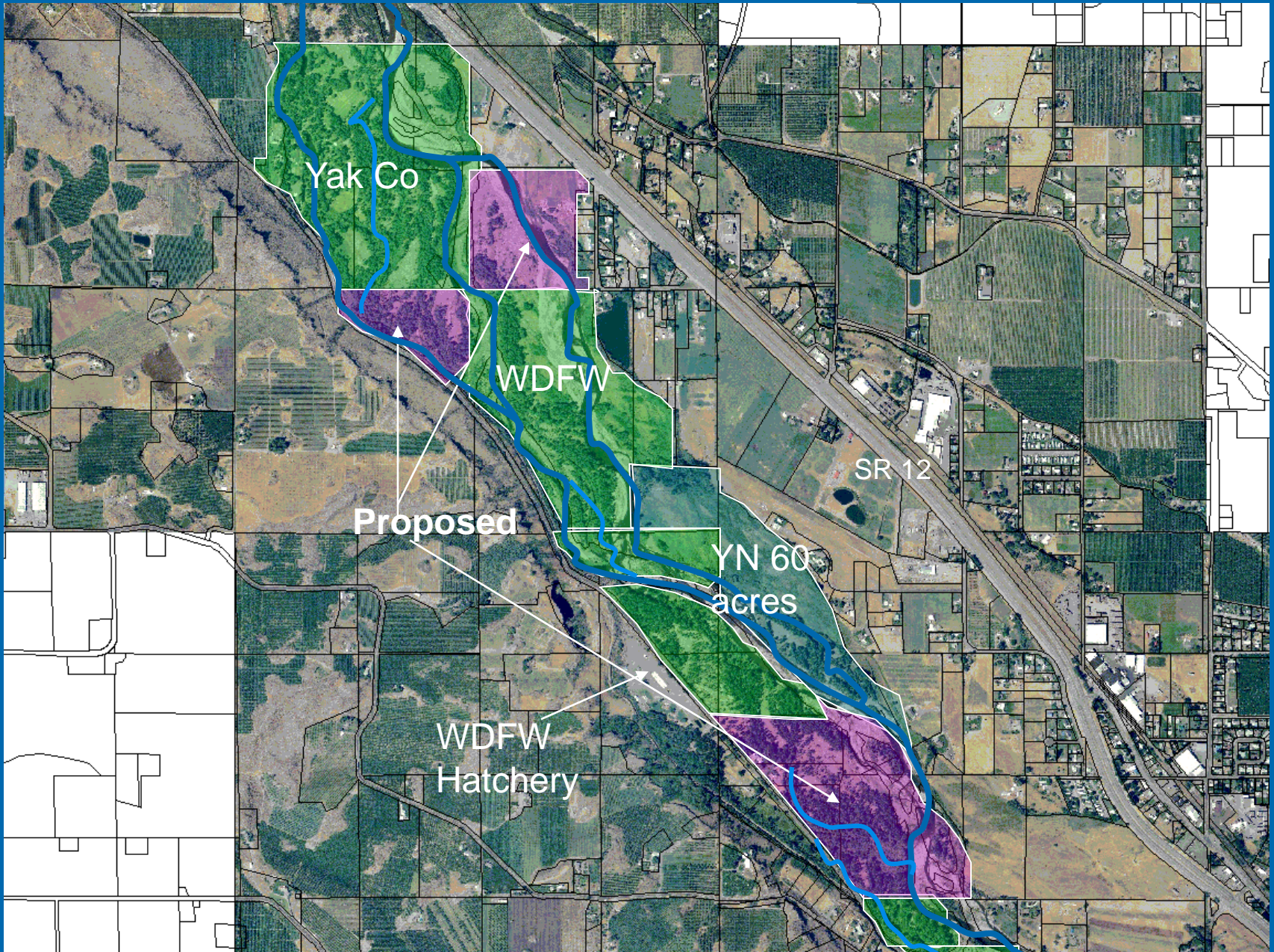
Loss Of Lateral Connectivity To The Naches Holocene Floodplain From 1884 To 2002



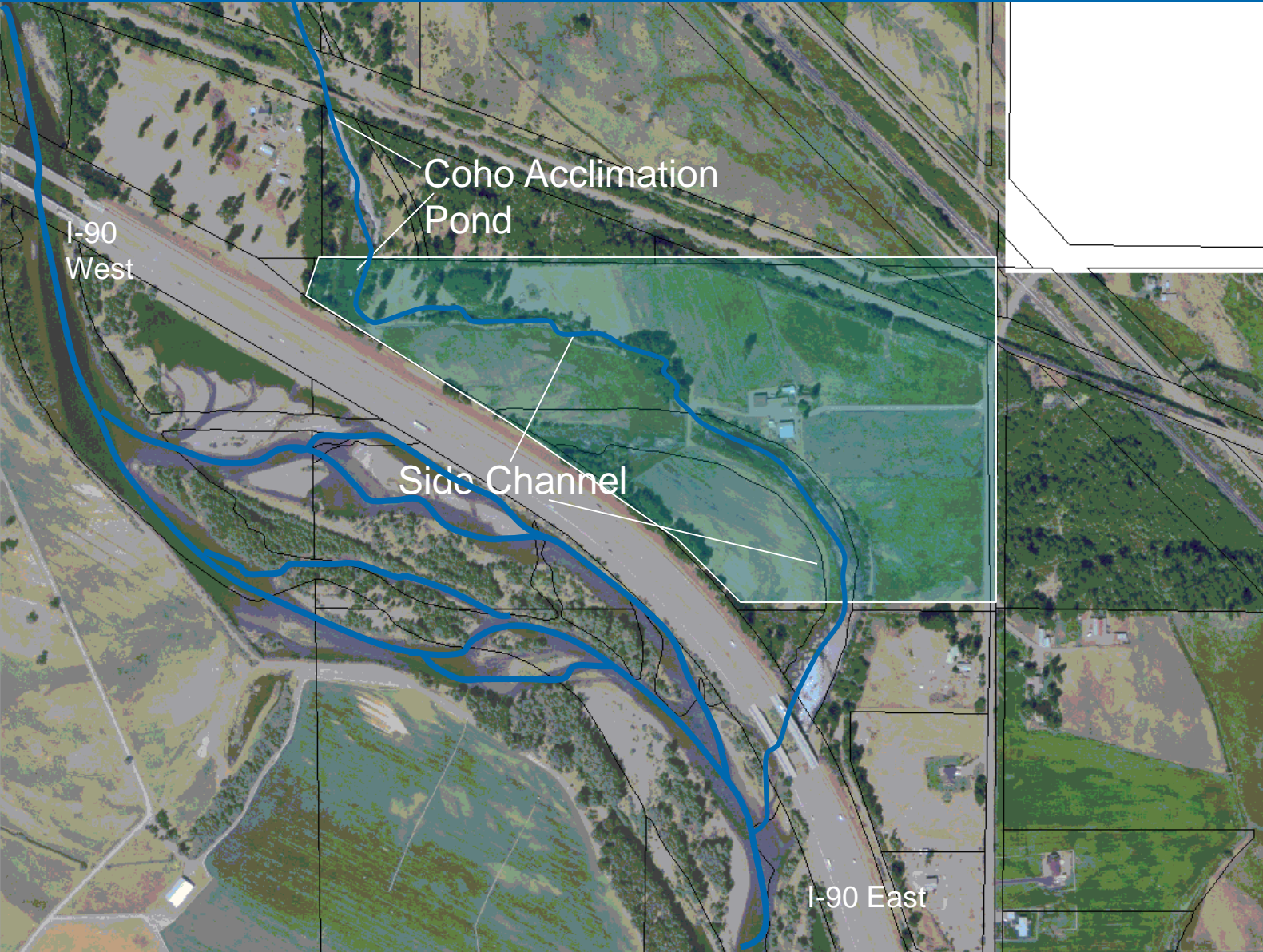
Naches River Properties



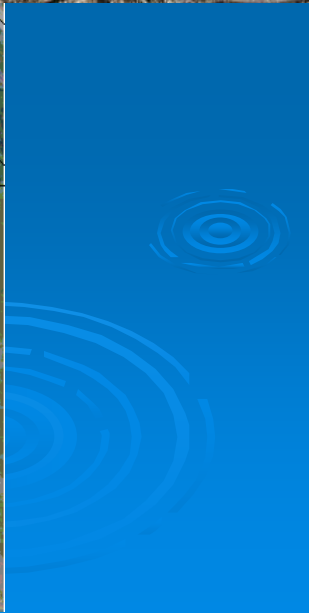
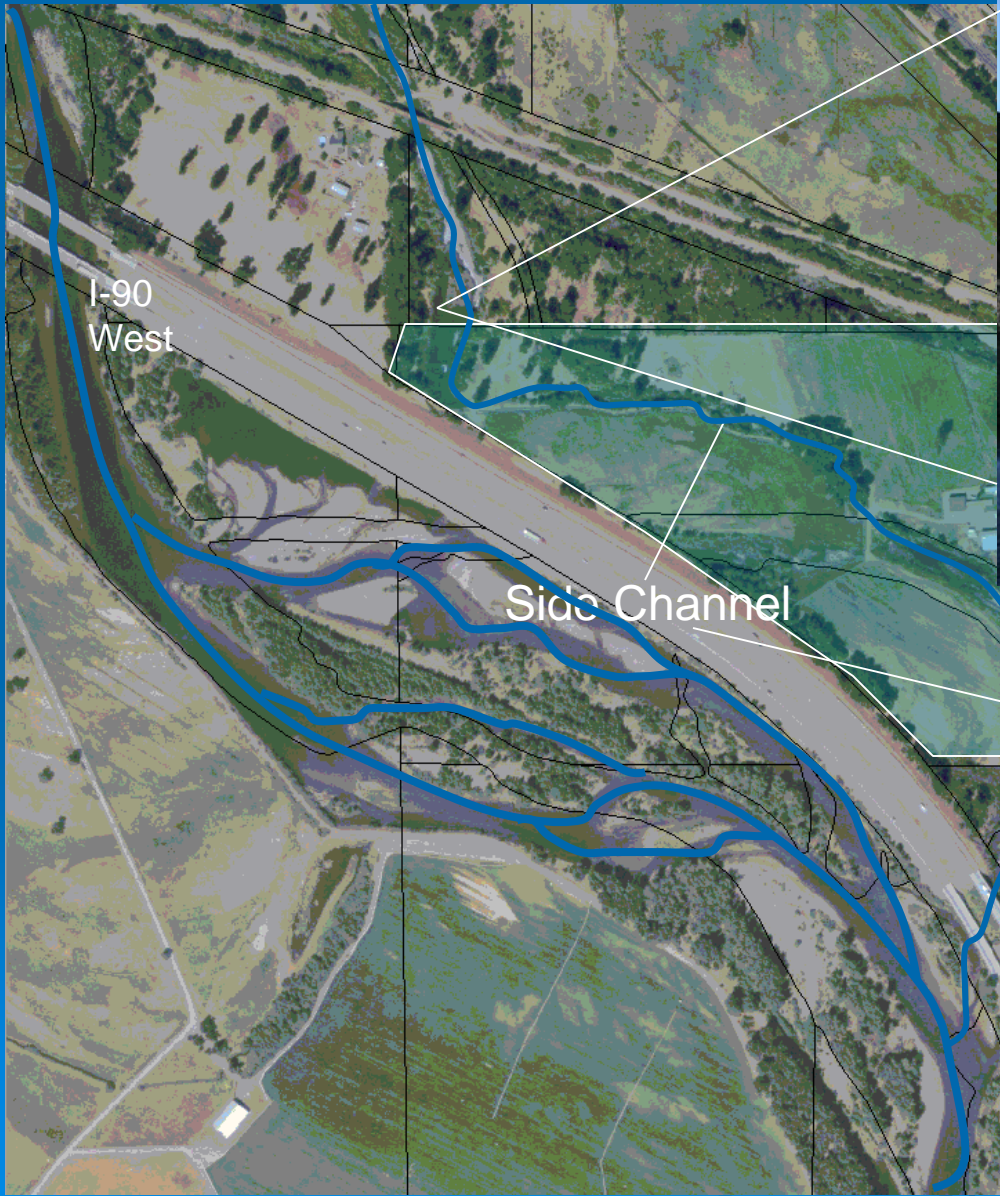
Lower Naches Floodplain



Kittitas Reach Property-Holmes



Kittitas Reach Property-Holmes



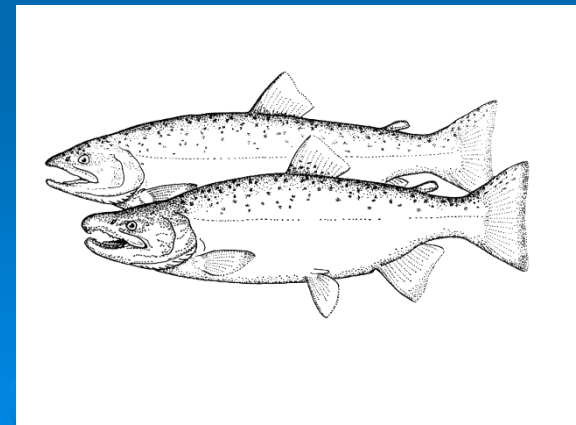
Holmes Restoration -2006

➤ Funding:

- National Fish and Wildlife Foundation –Community Salmon Fund Grant
- Mid-Columbia Regional Fisheries Enhancement Group

➤ Elements:


- Road Decommission/relocation
- Fish By-Pass
- Riparian planting/restoration
- Instream restoration



Holmes Fish Bypass

 Tax Lots

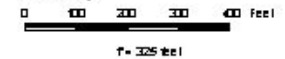
Cities

-  Ellensburg
-  Kittitas
-  Roslyn
-  Cle Elum
-  South Cle Elum

 Fish Bypass Headworks/ Outlets

 Bypass Piping
1431 Liner Feet

This map is maintained only as an aid in the appraisal and assessment of real property. The Kittitas County Assessor's Office does not warrant its accuracy.



Copyright (C) 2002 Kittitas County
This map was derived from several databases. The County cannot accept responsibility for any errors. Therefore, there are no warranties for this product.



By-pass Outlet



Holmes NFWF Roads

Coho Acclimation Pond

Tax Lots

Cities

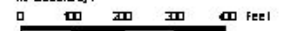
- Elk Island
- Kittitas
- Roslyn
- Clk Elm
- South Clk Elm

New Road Alignment
1607 Linear Feet

Road Decommission
1305 Linear Feet

Road Decommission
1307 Linear Feet

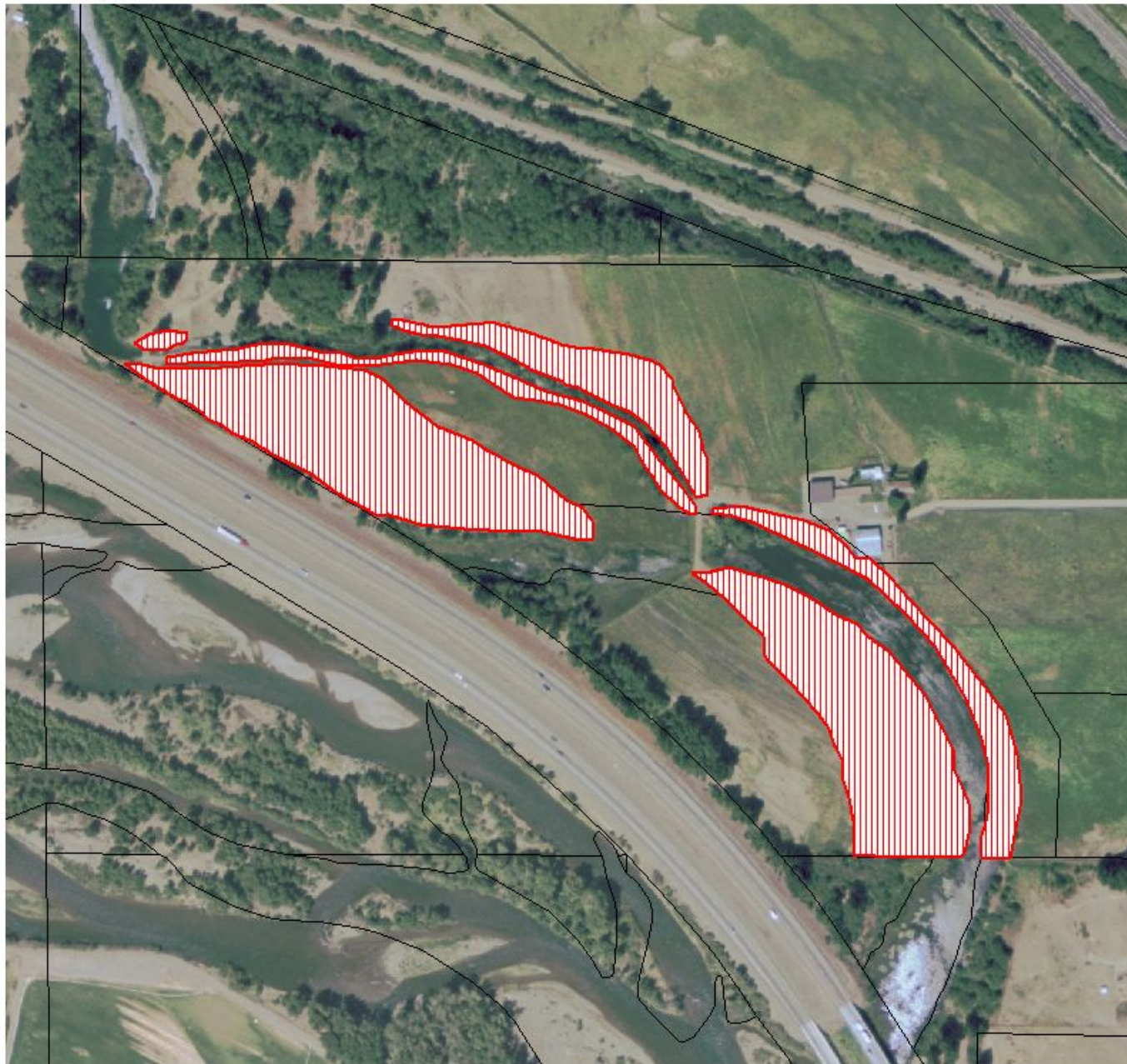
This map is maintained only as an aid in the appraisal and assessment of real property. The Kittitas County Assessors Office does not warrant its accuracy.



1" = 325 feet



Copyright (C) 2005 Kittitas County
This map was derived from several databases. The County cannot accept responsibility for any errors. Therefore, there are no warranties for this product.



KITTITAS COUNTY

ASSESSOR'S OFFICE

Holmes Riparian Planting

 Tax Lot


Cities


 Ellensburg

 Kittitas

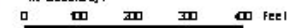
 Roslyn

 Cle Elum

 South Cle Elum

 Riparian Planting Area
427,749.24 SF

This map is maintained only as an aid in the appraisal and assessment of real property. The Kittitas County Assessor's Office does not warrant its accuracy.



1" = 300 feet



Copyright (C) 2002 Kittitas County
This map was derived from several databases. The County cannot accept responsibility for any errors. Therefore, there are no warranties for this product.

Salmon in the Classroom- 2006



Community Work Party –April 2006



Partnered with Cascade Land Conservancy

>60 Volunteers!

**~4,000 Native Shrubs
and Trees Planted**

**Fish By-
Pass Pipe**

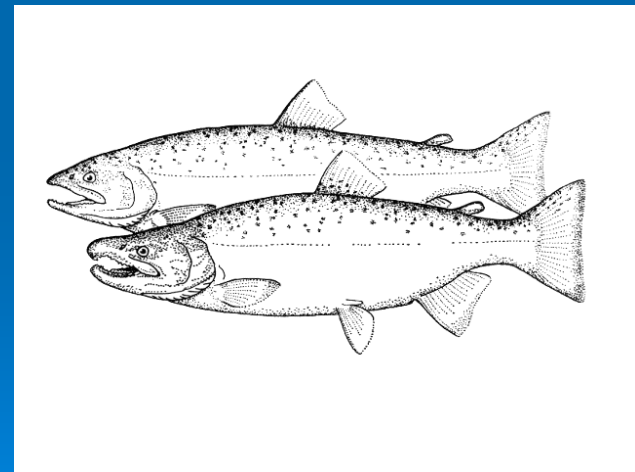




Drip line irrigation (miles and miles and miles and miles...Ask Henry Fraser for help when installing emitters on projects)

Feasibility Studies

- Thorp to Irene Rhinehart Reach Restoration
- Lower Cle Elum River Restoration

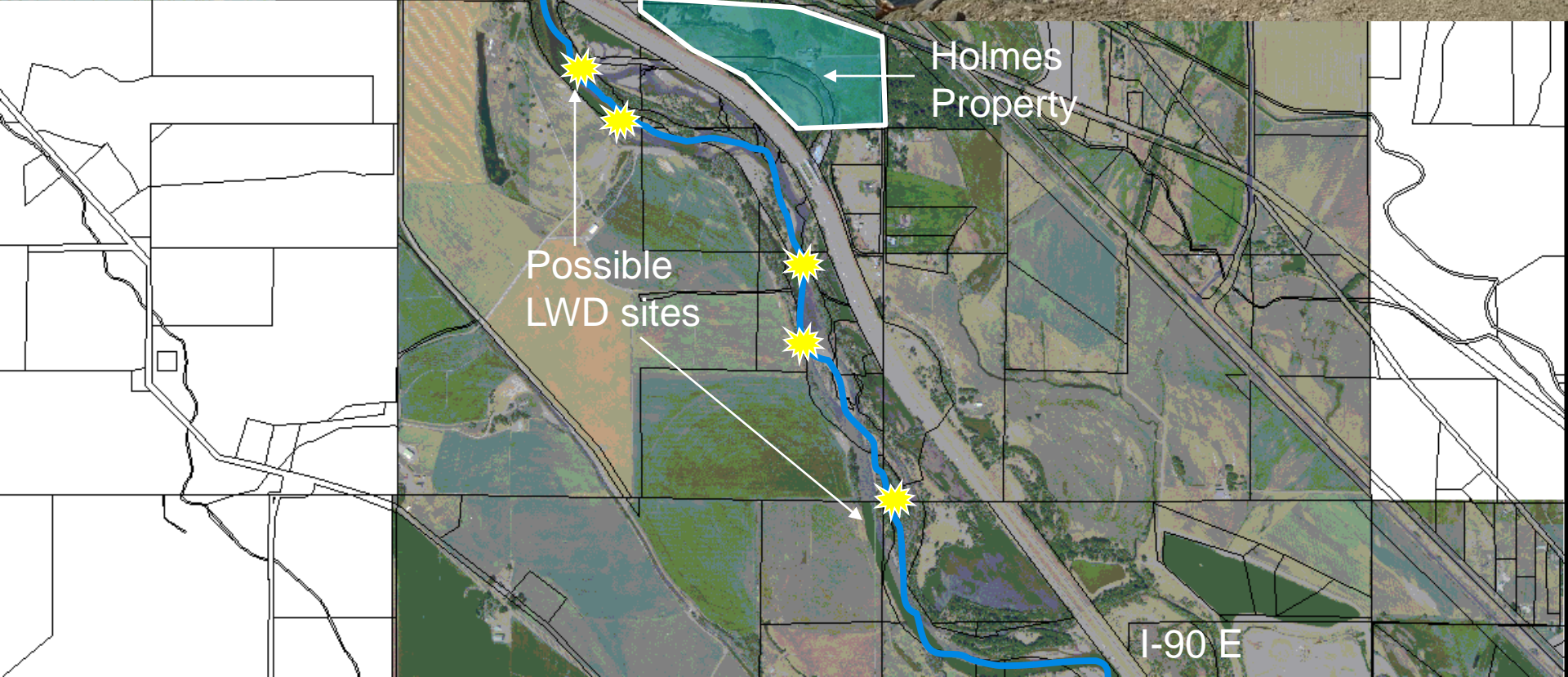
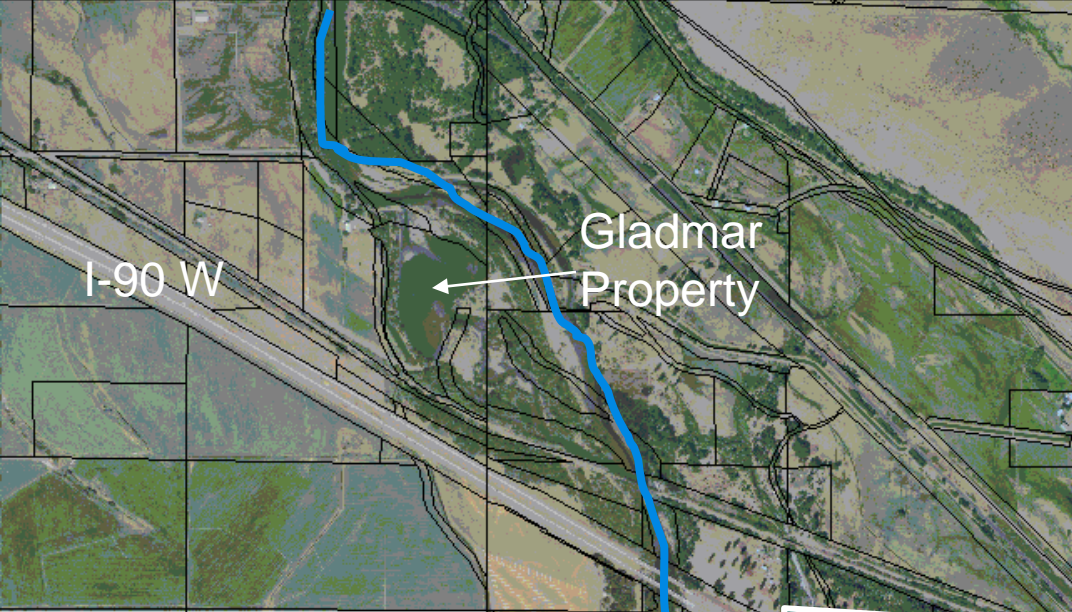


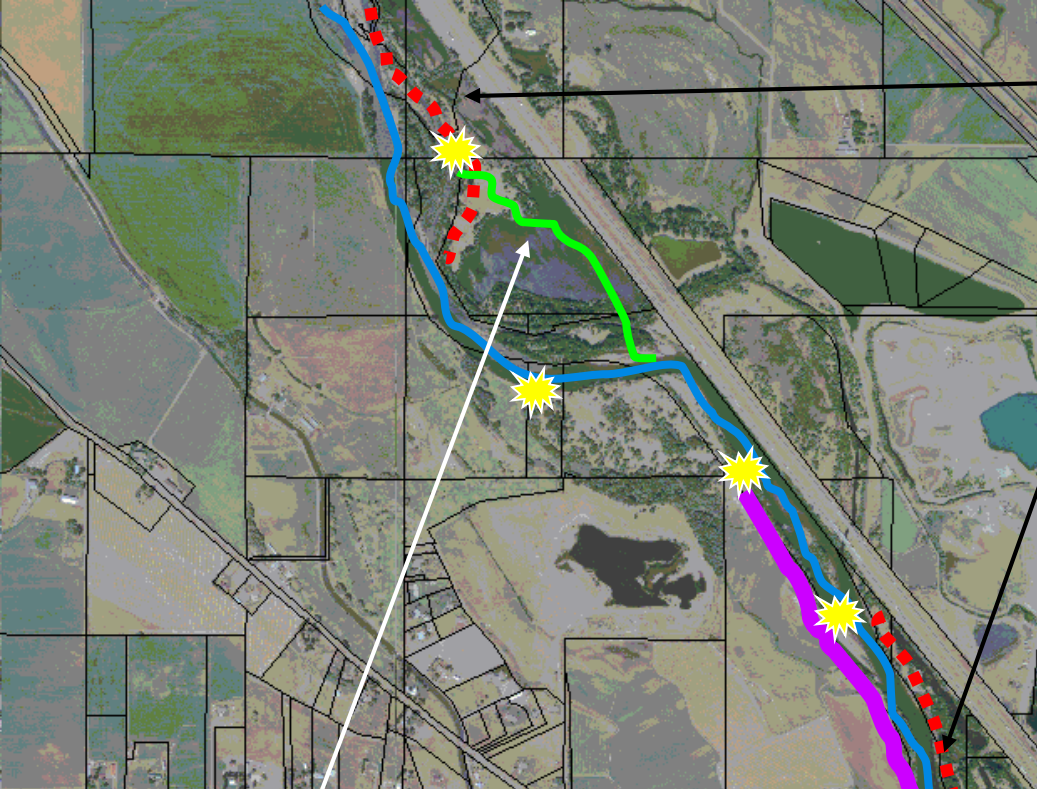
Thorp to Irene Rhinehart Park Restoration Project



- Large Woody Debris (LWD)
- Levee Removal/Reconfigure
- Side Channel Restoration
- Riparian Restoration
- Landowner Agreements/Conservation Easements

- Partners:
 - Yakama Nation-YKFP
 - WDDOT
 - Landowners
 - Others?

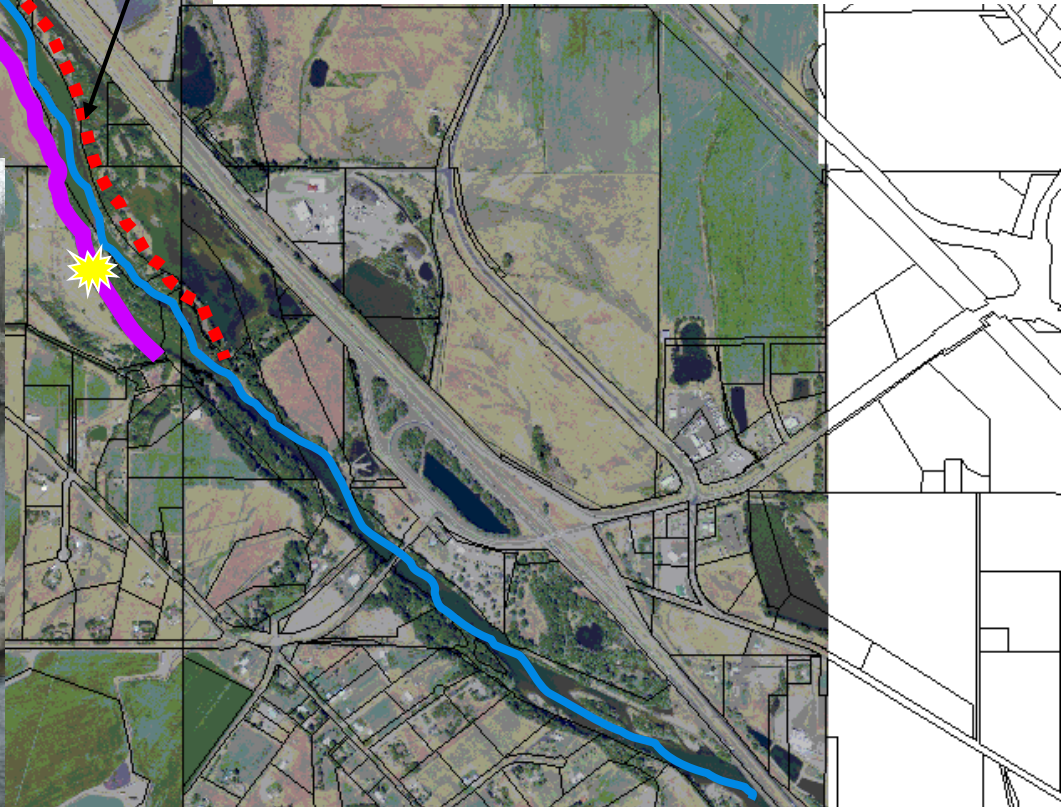


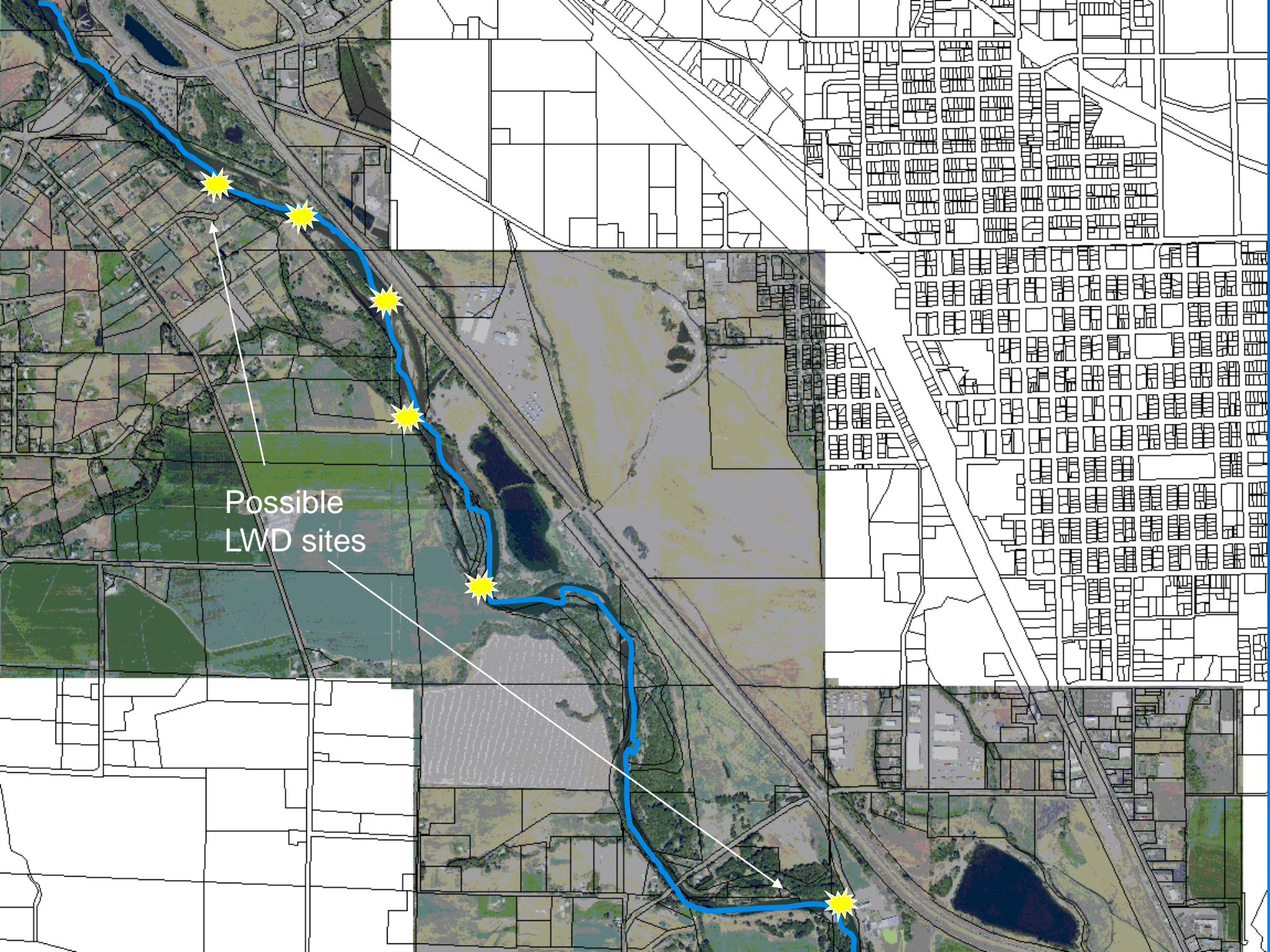


**Levee
removal/setbacks**



**Side channel
reconnection**





Possible
LWD sites

Lower Cle Elum River Restoration Project



➤ Components:

- Geomorphic study
- Flow modeling
- BMI study

➤ Desired Outcomes

- Flood Cle Elum River /Normative Flow
- Increased side channel connectivity and off channel rearing use
- LWD structures and recruitment

Cle Elum Reservoir

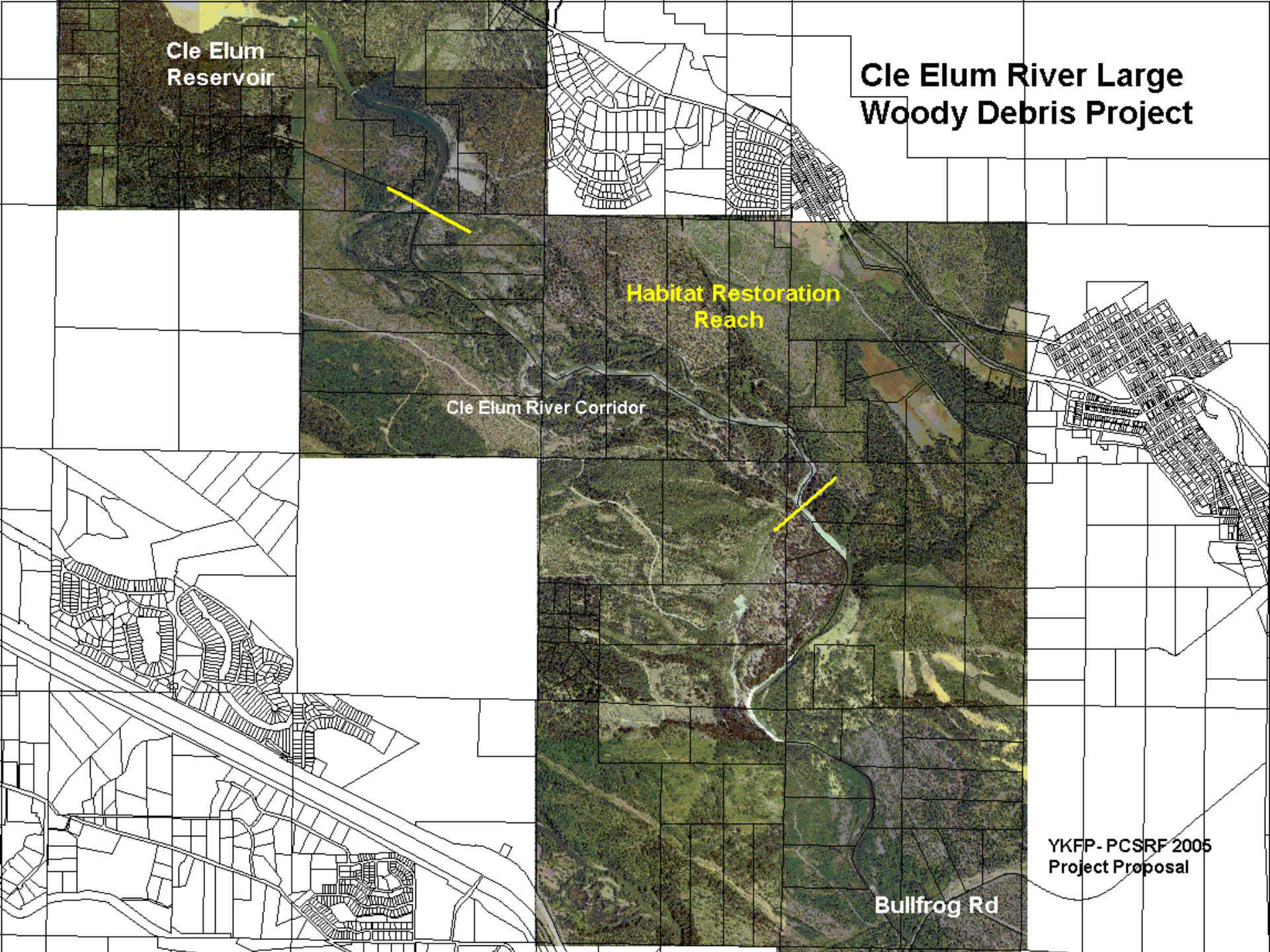
Cle Elum River Large Woody Debris Project

Habitat Restoration Reach

Cle Elum River Corridor

Bullfrog Rd

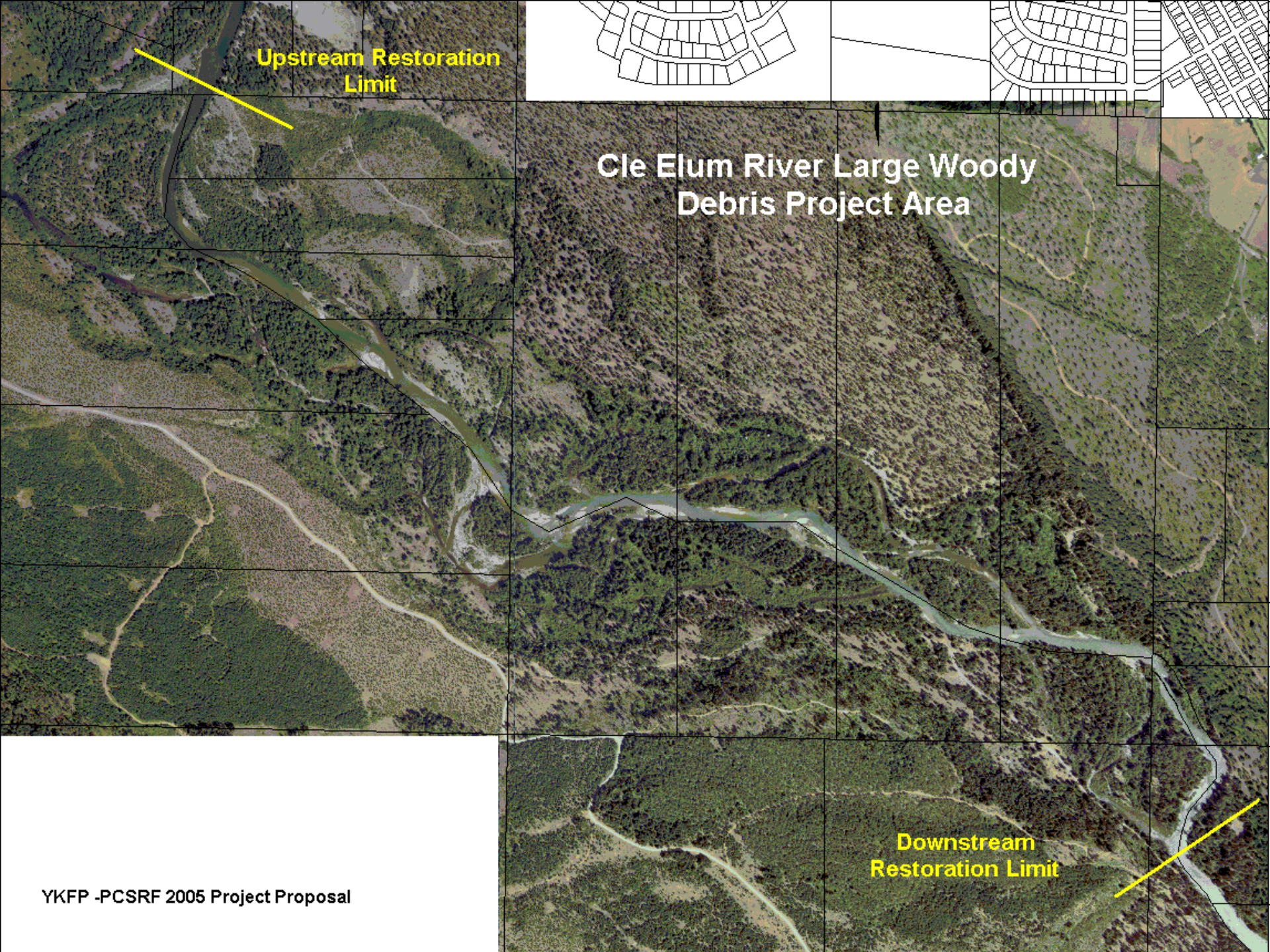
YKFP-PCSRF 2005
Project Proposal



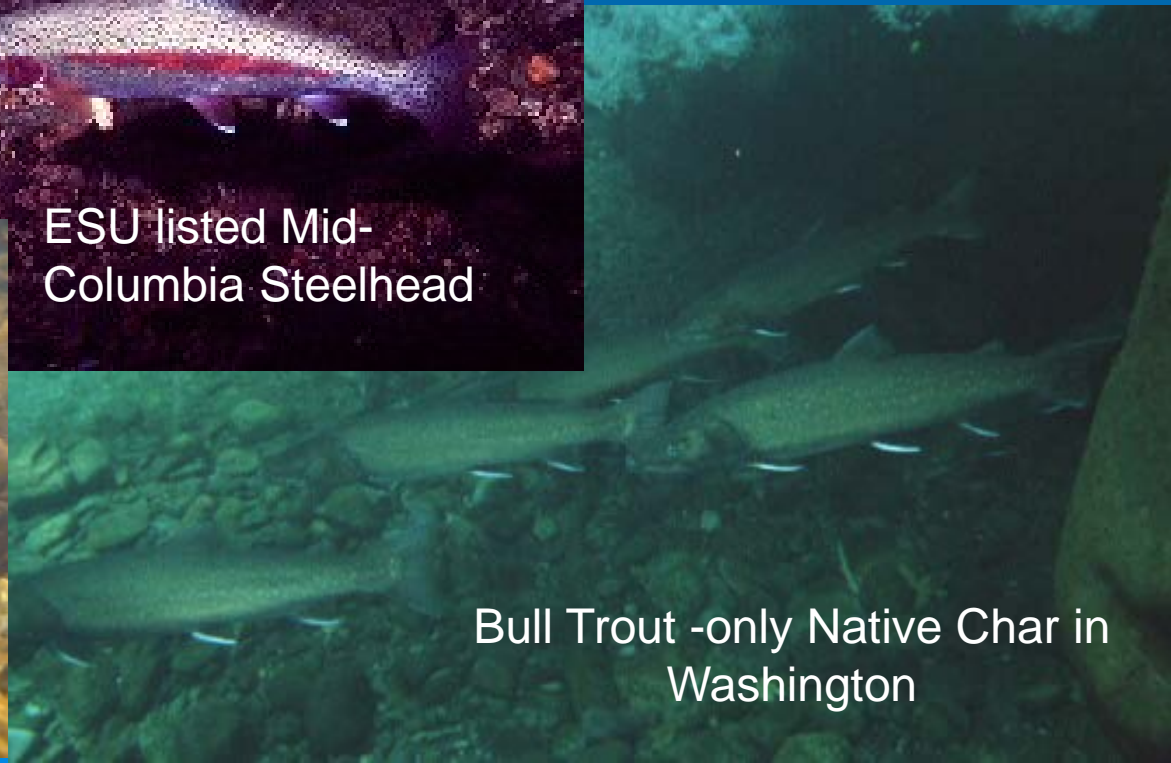
Upstream Restoration Limit

Cle Elum River Large Woody Debris Project Area

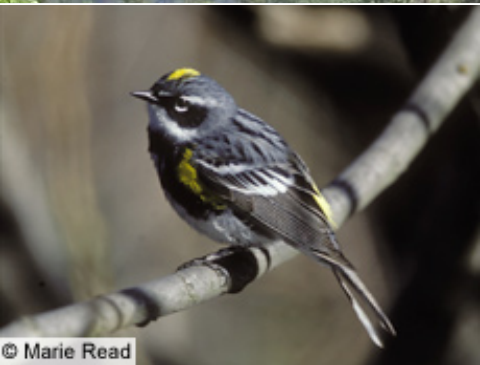
Downstream Restoration Limit



Species Benefit



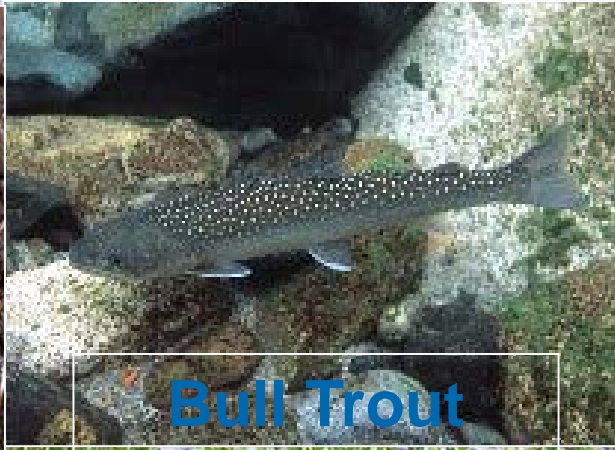
Fish and Wildlife Species & Communities



© Marie Read



© Felsman



Bull Trout



Chinook

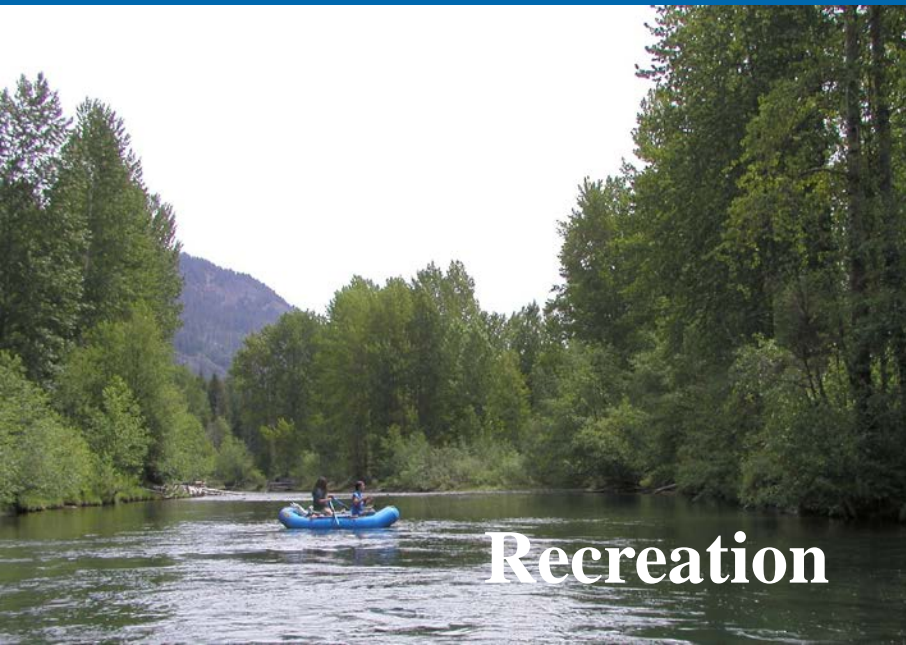


Education/Research



**Fishing/
Hiking**

Public Benefits



Recreation



**Critical
Habitat Areas**



FOR SALE
1.34 ACRES 119' RIVERFRONT
1-425-444-0103 \$ 89,000



Immediacy of Threat to Habitat



KEEP OUT
RESTRICTED AREA



Risk and Lost Opportunities



- **Growth pressure** is causing land values to escalate, which increases project expenses.
- Past habitat crediting issues and prior fiscal challenges have stalled this project for three years. Meanwhile, prudent habitat protection opportunities are being lost.

Do we want this?



Key Threats:
Rural land rezones and subdivision to small lots.



Habitat destruction -land clearing, wetland side channel and overflow channel infilling, levee/dike construction, bank armoring and residential /commercial development.



Weak local protection policies, and lack of enforcement (critical areas, shoreline master plan, flood hazard planning).

Or this?



**Habitat
Diversity**

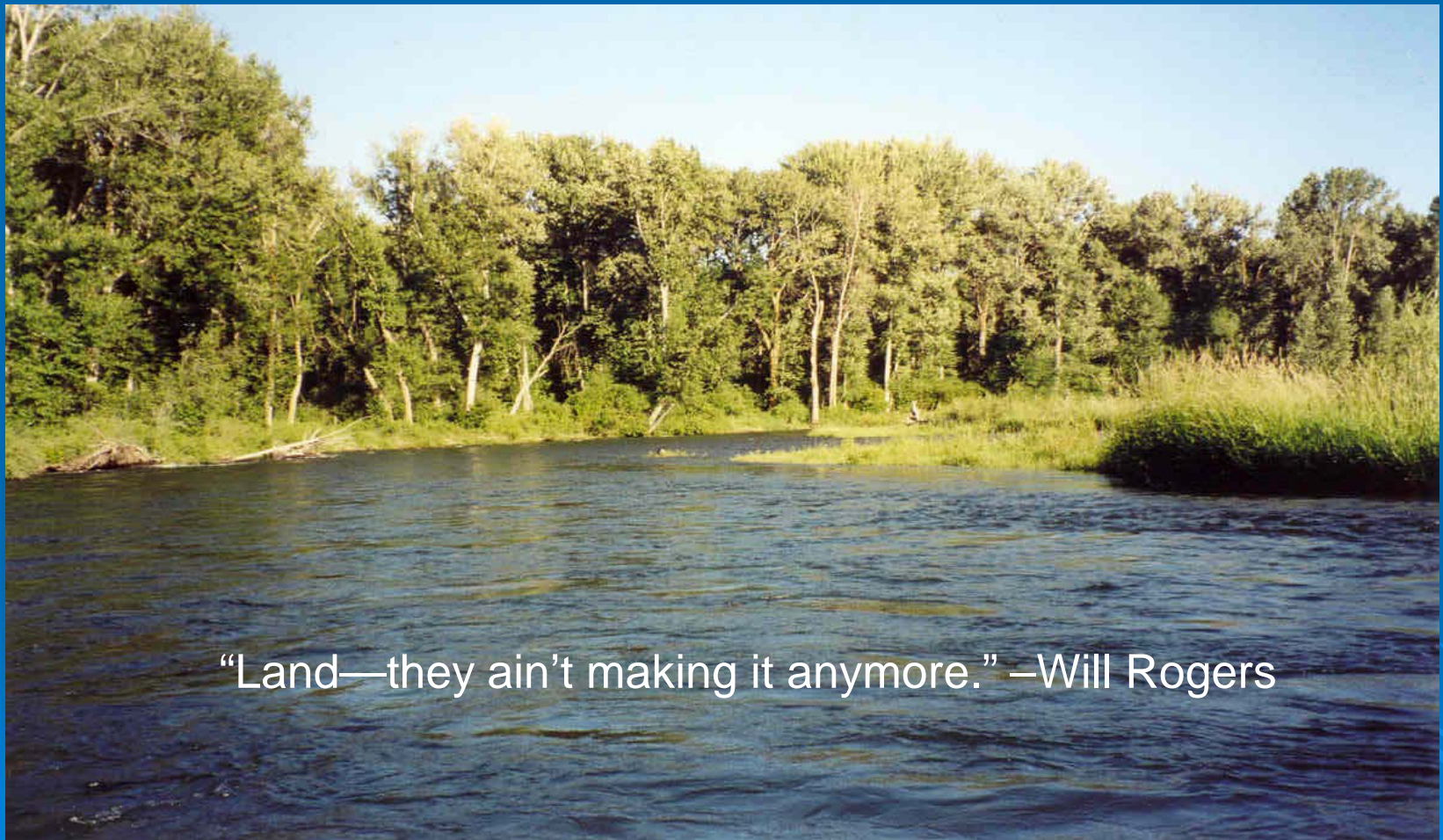


**Key Habitat Quantity and
Quality**

Strategies to further YSC work

- FUND Habitat Conservation Now, Avoid Lost Opportunities and Increased Costs.
- Expand landowner outreach and support.
- Continue coordination and partnerships with agencies and organizations.
- Work with local governments to implement incentive-based habitat protection programs.

Habitat Protection = Long Term Viability



“Land—they ain’t making it anymore.” –Will Rogers

Yakima Side Channels