A Quick History of Fish Programs

- Questions & concerns raised since the early 20th century
- Early efforts at fish screening & hatcheries
- Increasing fisheries restoration effort since the 1980s

1980s

- Tribal lawsuits force changes regionally & locally
- Northwest Power Act creates framework and BPA funding mandate for fish & wildlife restoration in the Columbia Basin
- Fish screening major diversions is prioritized
- Flip flop established to protect salmon

1990s

- Minimum flows set for Yakima River
- YRBWEP established
- Tribal and state programs funded by BPA
  - Habitat restoration
  - Fish Screening
  - Supplementation Hatcheries
- Significant water conservation and quality improvements by irrigators

2000s

- Pacific Coastal Salmon Recovery Fund and State funds available via SRFB
- Increased range of fish projects and proponents
- Strategic planning to guide investments
- Application of the ESA to Steelhead & Bull Trout

Directed Funding for Recovery

The Big Three:

- BPA Fish & Wildlife Program
- Reclamation's YRBWEP Program
- SRFB (NOAA PCSRF & State)

Additional Sources:

- USFWS, National Fish & Wildlife Foundation, Private Foundations, USDA, and many more

BPA Fish & Wildlife Program

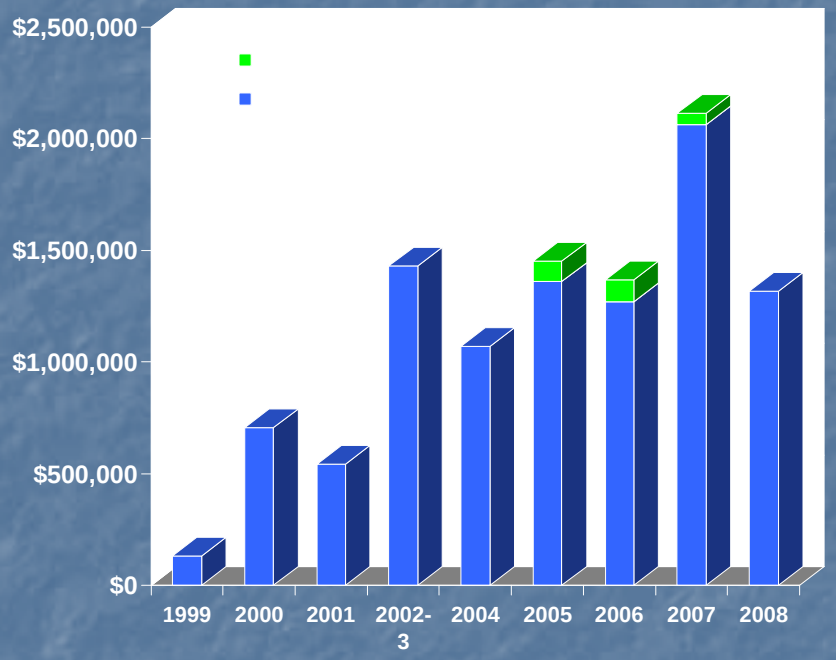
- Primary funding for all hatchery work
- Significant commitment to research (especially on hatchery supplementation)
- Funding of habitat enhancement programs

YRBWEP

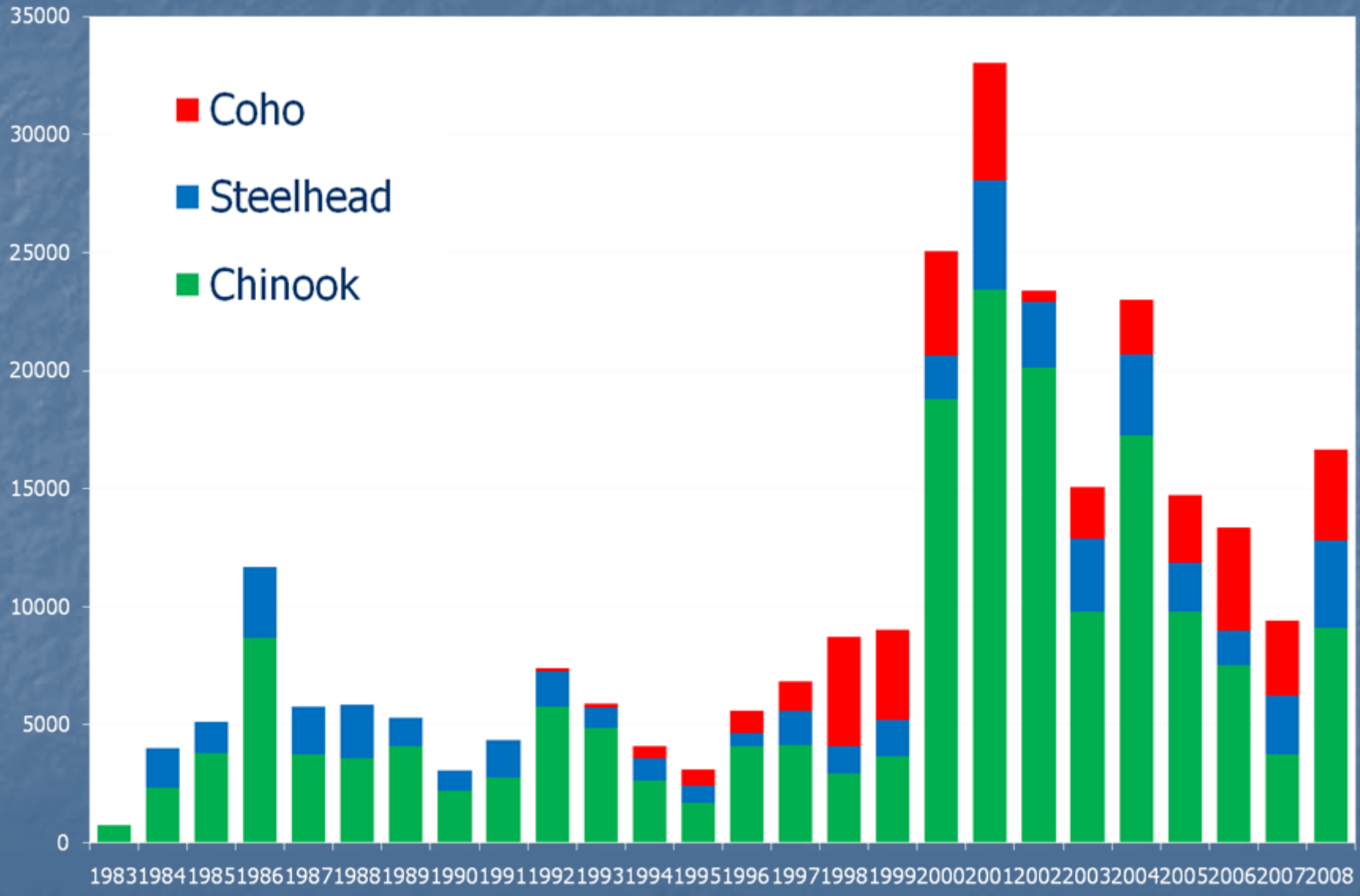
- Bureau of Reclamation program to fund:
  - Floodplain land acquisition & restoration
    (almost 2000 acres to date)
  - Irrigation system improvements & water rights purchases that free up water for instream use
    (25 kaf & Wapatox right to date; another 50+ kaf in progress)
  - Support of key tributary efforts
    (Toppenish, Coiwche, Taneum Creeks, Cle Elum passage
- ~8.5 million annual budget

Salmon Recovery Funding Board

- $s from PCSRF & State
- ~1.4 million/yr
- 54 projects, 1999-2008:
  - 20 Trib passage/screen
  - 14 Property acquisition
  - 20 Riparian/instream



Prosser Adult Counts



NEXT STEPS?

What's been planned?

- 2004 Yakima Subbasin Plan for BPA
- Species-specific Master Plans
- 2005 Yakima Salmon Recovery Plan
  - 2009 Yakima Steelhead Recovery Plan
  - Yakima Bull Trout Action Plan (in progress)

2009 YAKIMA STEELHEAD RECOVERY PLAN

Extracted from the

2005 Yakima Subbasin Salmon Recovery Plan

With Updates

Final
August 2009

What does this plan do?

- Sets objective criteria for delisting and recovery of steelhead
- Identifies actions needed for recovery with more specificity than other plans
- Covers the full breadth of habitat issues in the Yakima Basin

Next Steps for Planning

- Reach/Trib level implementation planning
- Bridge between strategic plans and the on-the ground project scale
- Identifies priorities and expected costs for concrete projects

Intro to SEIS Habitat Proposal

Derek Sandison

Flow/Habitat Interactions

John Easterbrooks

Irrigation Operation Effects

- Lower winter flows below reservoirs
- Unnaturally high flows in irrigation season
  - Yakima mainstem above Roza
  - Lower ends of some tributaries
  - Tieton/Lower Naches in Sept

More flow impacts...

- Lower summer flows due to diversions
  - Selected tributaries
  - Below Parker
  - Lower Naches River
- Flow/temp affects on upstream migration through lower river in summer/fall

And more...

- Reduced flows in spring outmigration
  - Below Parker
  - Upper Yakima River as reservoirs fill
  - Holes in the River (hydropower reaches)
    - Roza bypass reach
    - Chandler bypass reach

Habitat-maintaining Flows

- Need for high flows that maintain habitat conditions by:
  - Creating complex floodplain habitats
  - Scouring and depositing spawning gravels
  - Regenerating cottonwoods, etc

Floodplain Restoration

Joel Freudenthal

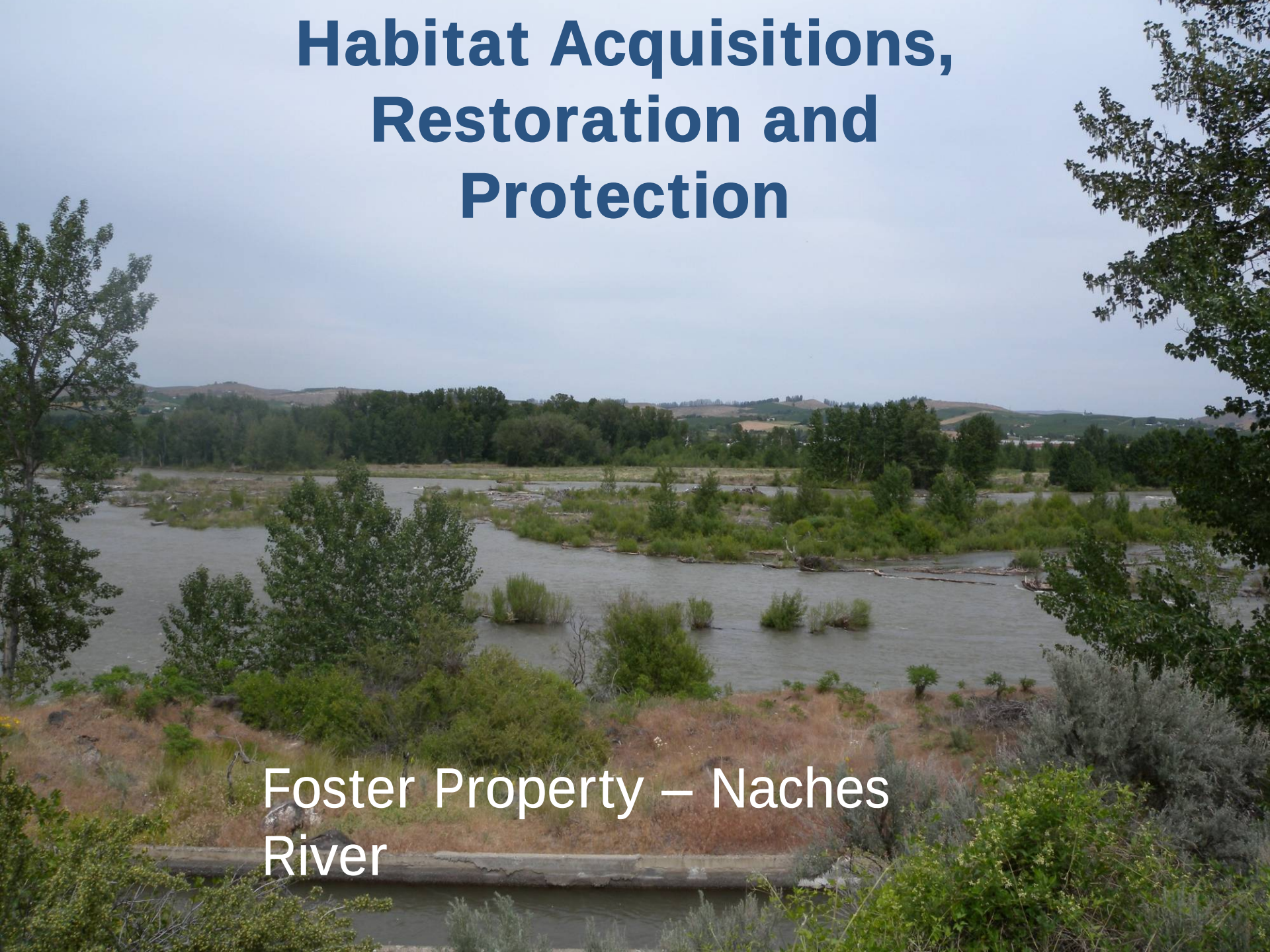
YKFP Habitat Programs
John Marvin

- 1,300 acres floodplain acres protected
- Focus on key mainstem & trib reaches
- Holmes project & coho spawning
- Wood project in tributaries
- Little Naches road proposals

Yakima-Klickitat Fisheries Project - Habitat Projects Update

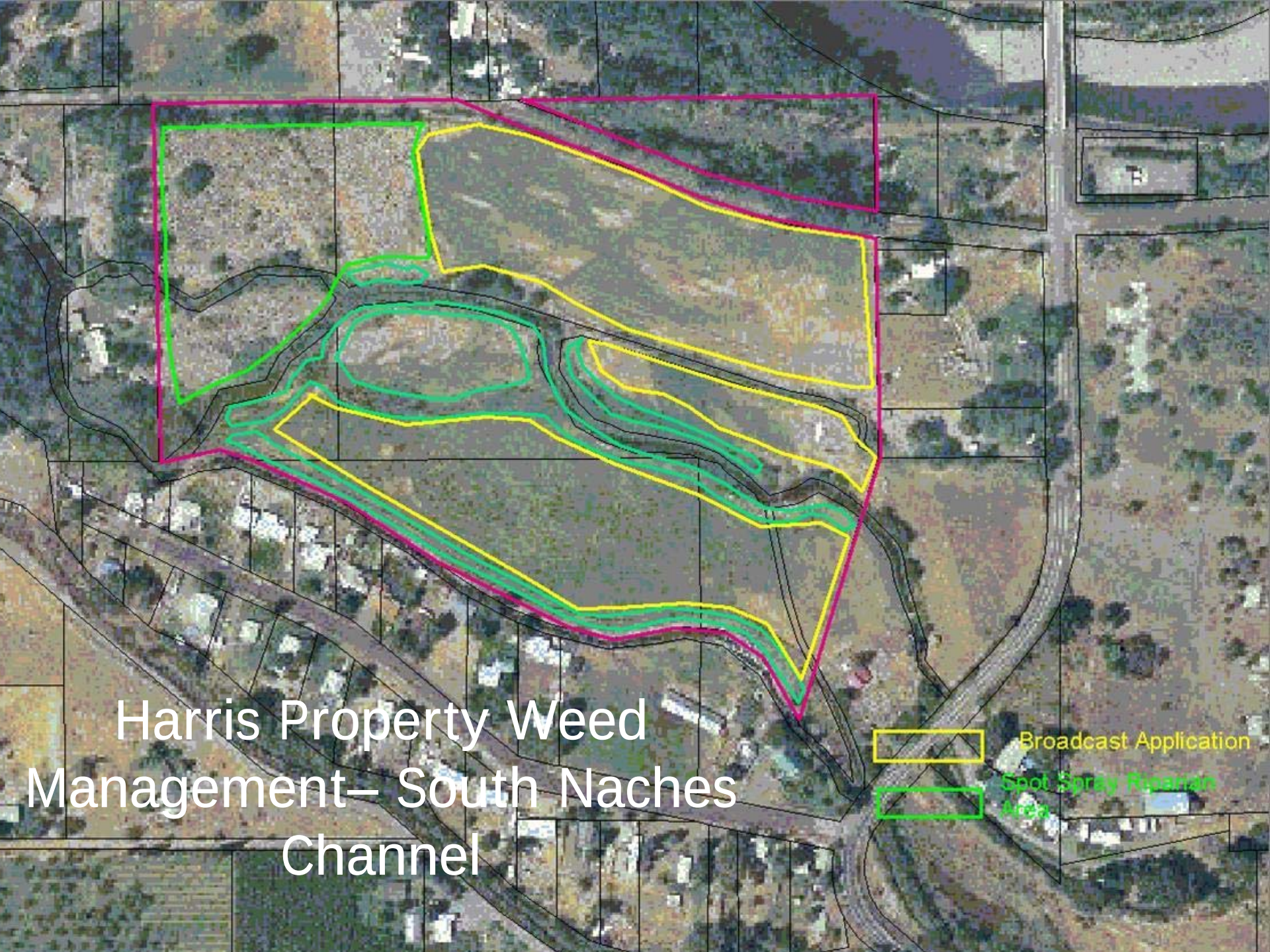
John Marvin – YKFP Habitat Biologist

Habitat Acquisitions, Restoration and Protection



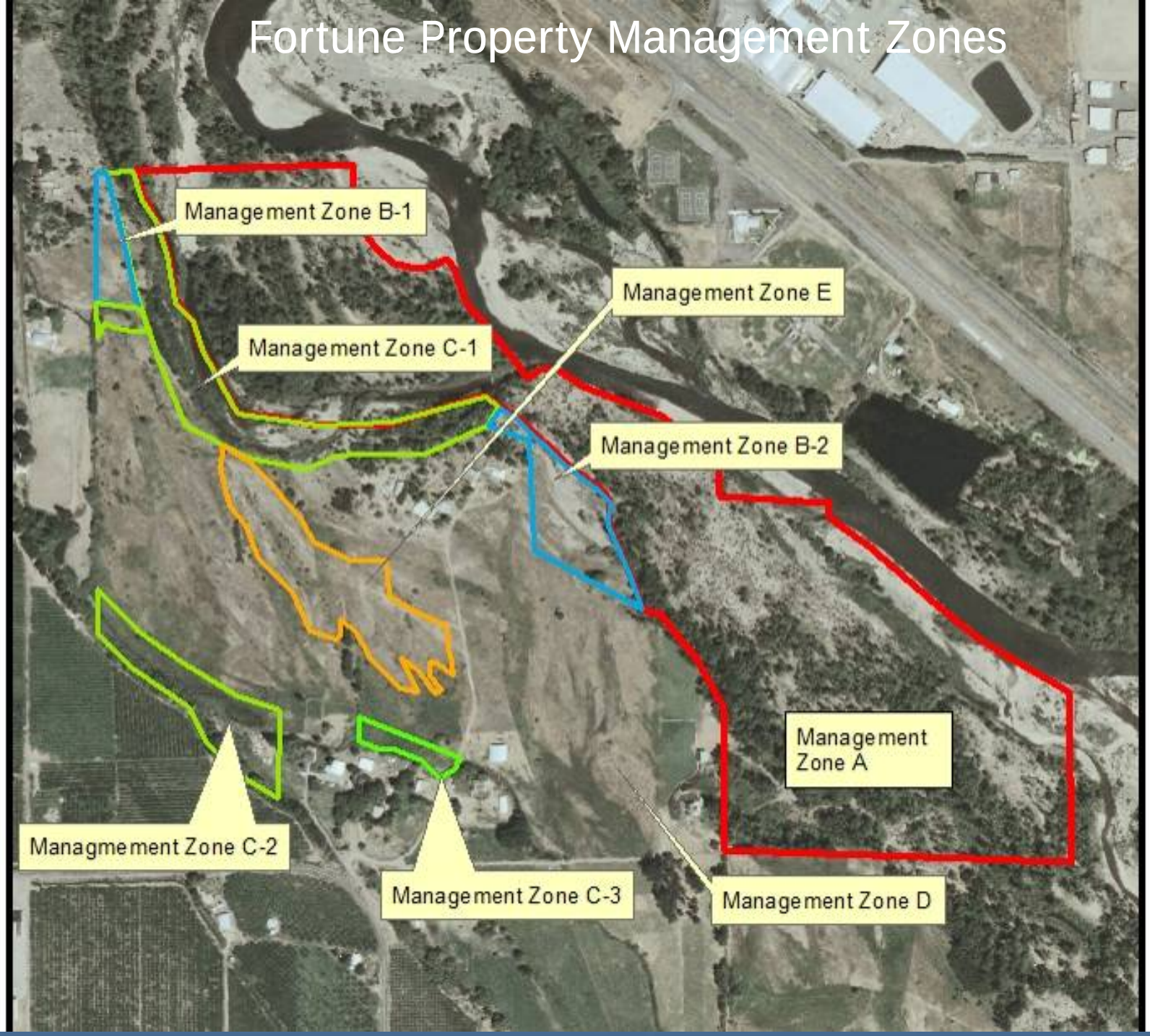
Foster Property – Naches River


Fortune Property – Naches River



Harris Property Weed Management– South Naches Channel

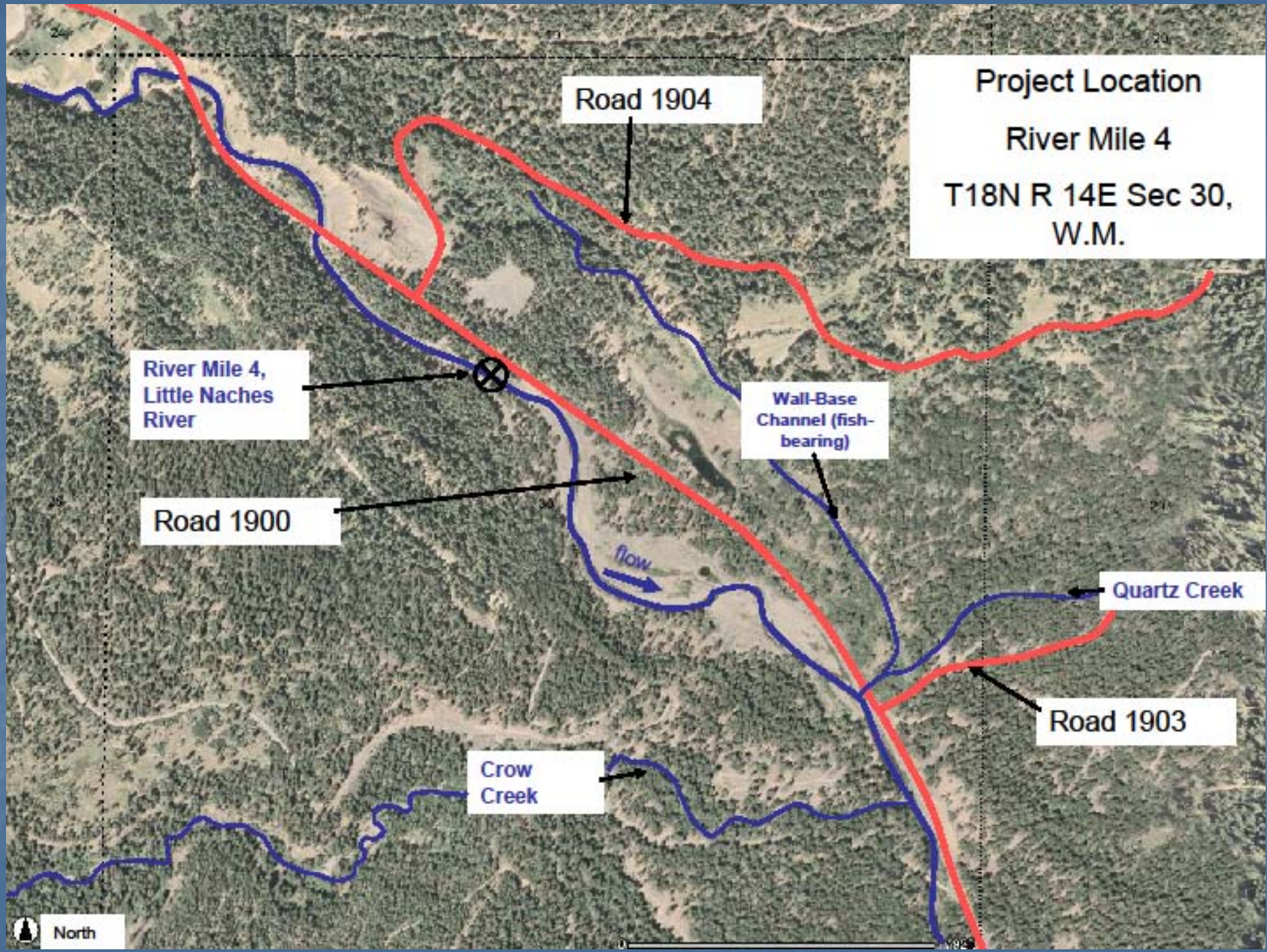
Fortune Property Management Zones

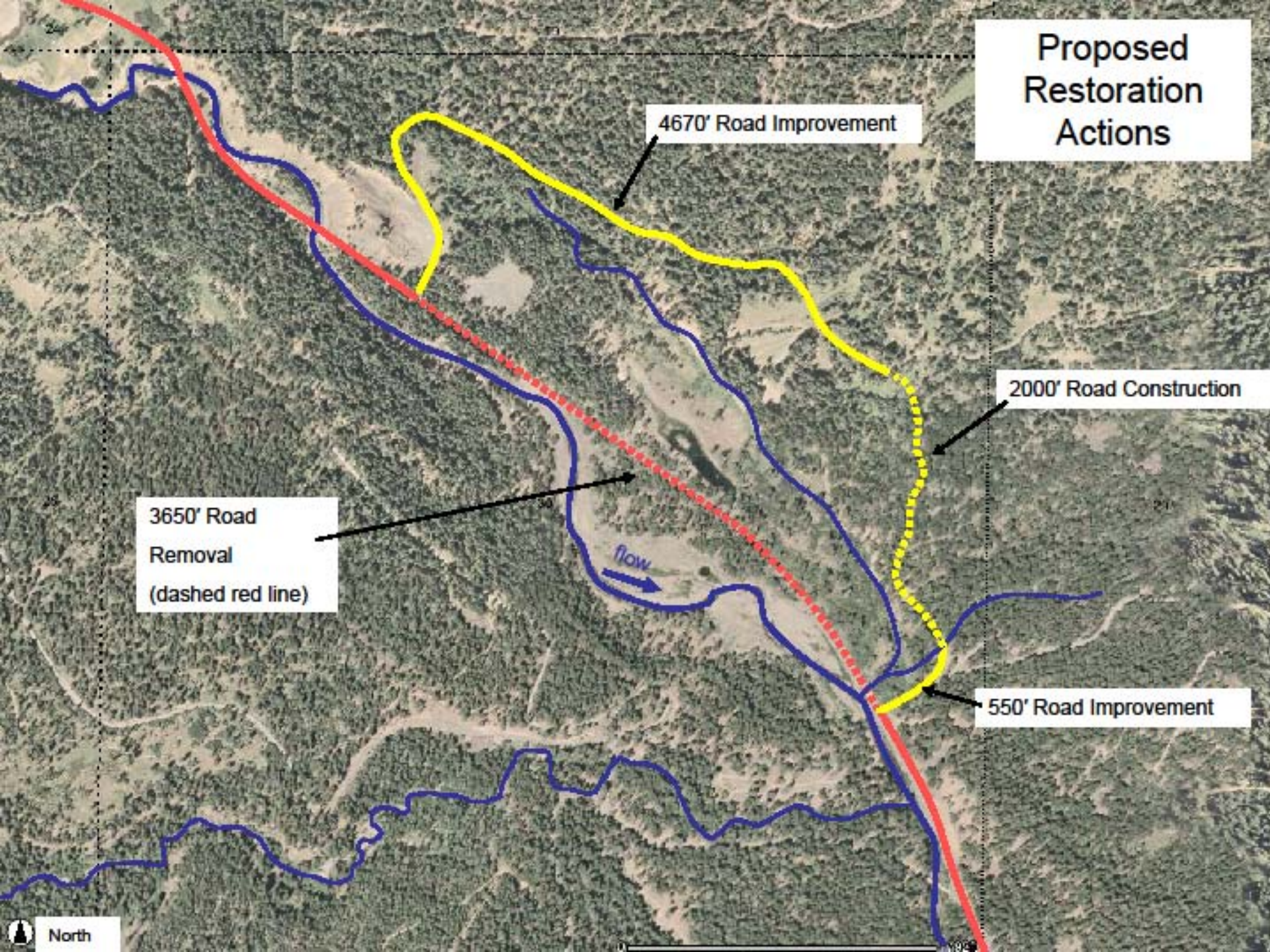


Area wide weed control on the Harris Property

Fish passage barrier to be removed from Harris property

Garbage to be removed from Fortune Property


Project Location
River Mile 4
T18N R 14E Sec 30, W.M.
Road 1904
River Mile 4, Little Naches River
Wall-Base Channel (fish-bearing)
Road 1900
flow
Quartz Creek
Road 1903
Crow Creek
North


Proposed Restoration Actions
4670′ Road Improvement
2000′ Road Construction
3650′ Road Removal (dashed red line)
flow
550′ Road Improvement
North

Type 1 Streams: Yakima River	250 feet
Type 2 Streams: Reecer Creek; Currier Creek; Whiskey Creek; Wilson Creek (including West and East Branches); Mercer Creek.	85 Feet
Type 3 and 4 Streams and Ponds: Englehorn Pond; West Interchange Ponds; Lyle Creek.	50 feet

3. Increased Riparian Habitat Area Widths. The director may require increased buffer widths in accordance with the recommendations of an experienced, qualified professional, and the best available science on a case-by-case basis when a large buffer is necessary to maintain the structure and functions of the habitat area, based on site-specific characteristics. When the SEPA checklist discloses the possibility that the buffers may be increased, the procedures in WAC 197-11-158 shall be invoked. The criteria to be used to analyze the issue whether the buffers should be increased are as follows:

a. When the director determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;

b. When the frequently flooded area exceeds the recommended riparian habitat area width, the riparian habitat area shall extend to the outer edge of the frequently flooded area;

c. When a channel migration zone is present, the riparian habitat area width shall be measured from the outer edge of the channel migration zone;

d. When the habitat area is in an area of high blowdown potential, the riparian habitat area width shall be expanded an additional fifty (50) feet on the windward side; or

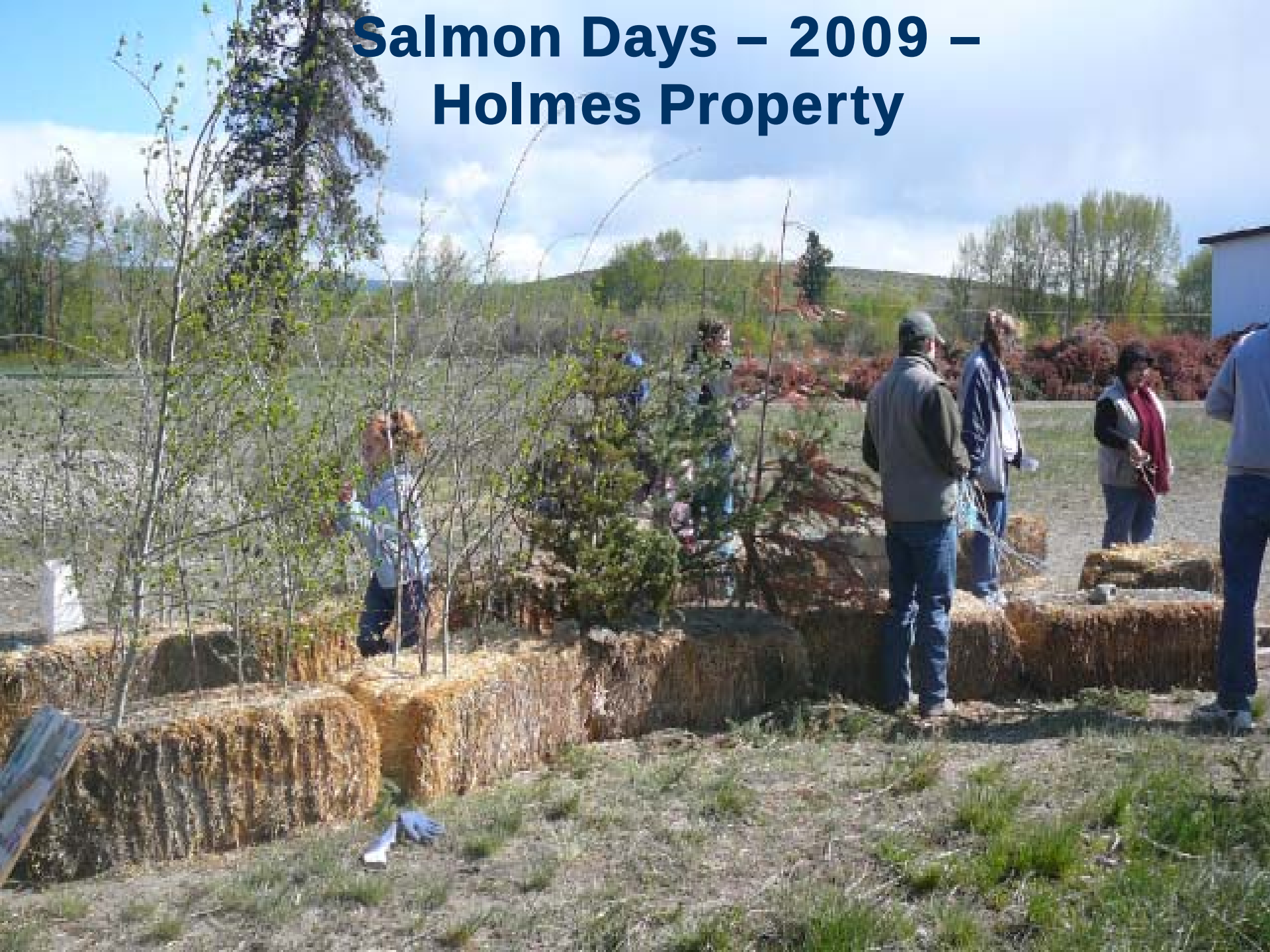
e. When the habitat area is within an erosion or landslide hazard area, or buffer, the riparian habitat area width shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.

4. Riparian Habitat Area Width Averaging. The director may allow the recommended riparian habitat area width to be reduced in accordance with a critical area report only if:

a. The width reduction will not reduce stream or habitat functions, including those of nonfish habitat;

Ellensburg CAO

Salmon Days – 2009 – Holmes Property



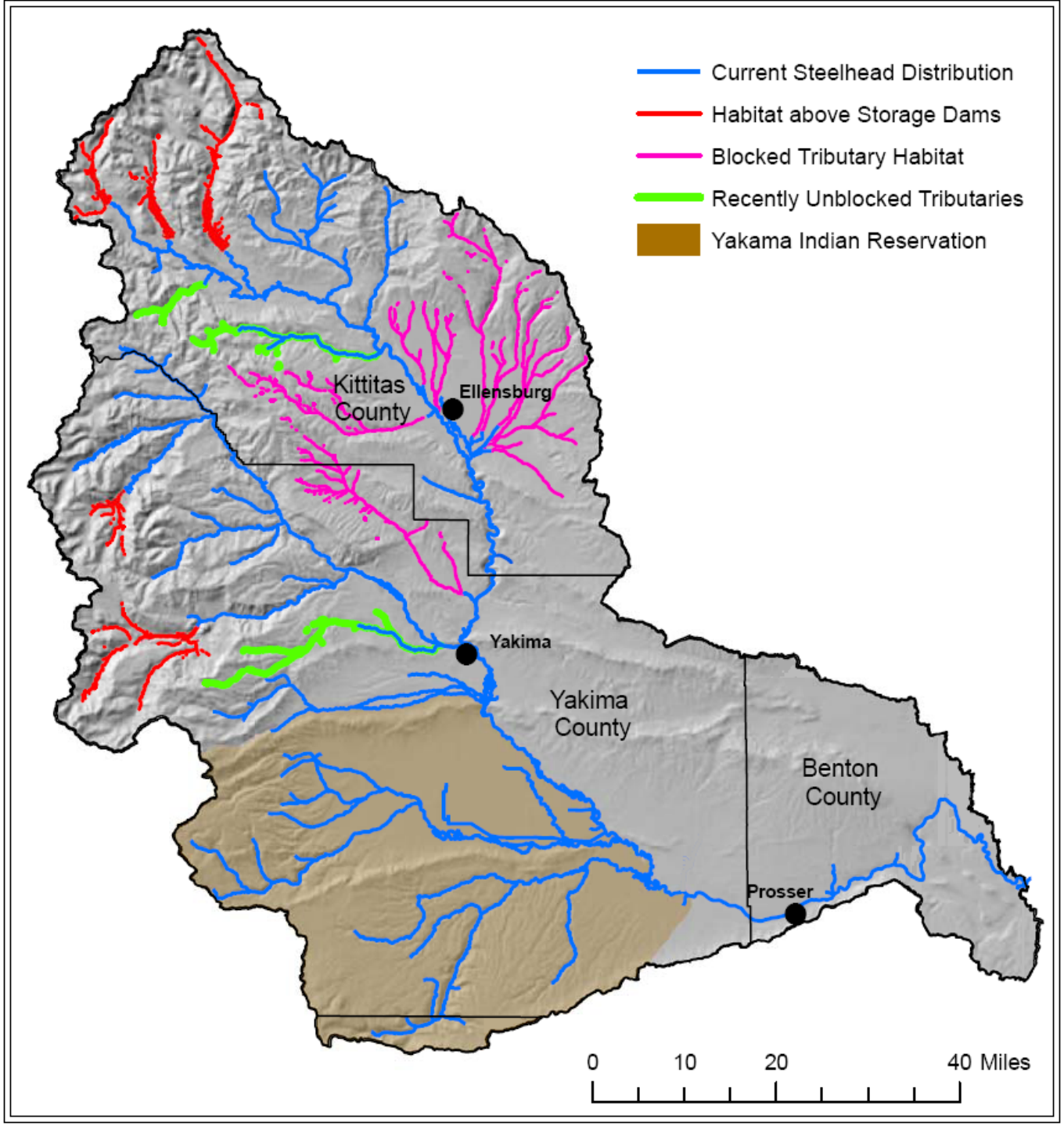
Proposed Habitat Enhancement Projects in Integrated Alternative

- Based on the Yakima Steelhead Recovery Plan, Yakima River Side Channels Project, Basin Flood Plans
- Projects are identified for specific reaches, but specific sites will be determined later
- Projects have not been prioritized

Tributary Habitat Projects

Tributaries	Project Types					
	Fish Passage	Instream Flow Improvement	Floodplain/Side Channel Reconnection	Riparian Habitat Enhancement/ Restoration	Channel Complexity (Large woody debris, channel reconstruction, boulders, etc.)	Diversion Screening
Big Creek		X				
Cle Elum River			X	X	X	
Teanaway River		X	X	X	X	
Swauk Creek	X	X	X	X	X	X
Taneum Creek	X	X		X		
Jack Creek	X		X	X	X	
Indian Creek	X					
Manastash Creek	X	X		X		X
Reecer Creek	X		X	X	X	X
Wilson/Naneum Creeks System[1]	X	X		X	X	
Bumping River				X	X	
Nile Creek		X	X	X	X	X
Rattlesnake Creek		X	X	X	X	X
Tieton River			X	X	X	
Cowiche Creek	X	X	X	X	X	X
Little Naches River			X	X	X	
Ahtanum Creek[2]	X	X	X	X	X	X
Toppenish Creek		X	X	X	X	X
Satus Creek		X	X	X	X	

Tributary Passage & Screening



Satus Creek Dam Removal (In Progress July 2009)

Protecting tributary habitats

Enhancing Riparian Vegetation

Providing instream structure

Reconnecting streams & floodplains

Existing Vehicles for Trib Work

- Tribal programs in Satus, Toppenish & Ahtanum watersheds
- YTHAP and partners
- YKFP Habitat Program
- YRBWEP (Taneum, Cowiche and future)

Tributary Flow Enhancement

- SEIS looks at improvements to KRD to allow provision of water to key tribs; also has placeholder for Pine Hollow in Ahtanum
- Non-profit water trusts
- YRBWEP & Dept of Ecology Programs
- Columbia Basin Water Transaction Program

Programmatic Needs for Enhancing Fish Habitat

Remove Remaining Barriers

- Provide passage at storage dams
- Finish ongoing work on Manastash, Taneum, and Reecer Creeks
- Develop program for Wilson/Naneum
- Continue to address other minor passage issues
- Wenas as a ?

Improve Mainstem Flows

- Increase ability to manage mainstem flows for fisheries
- Quantify, prioritize & implement flows for:
  - Smolt outmigration
  - Upstream passage of adults
  - Juvenile rearing in key reaches
- Address physical impacts of bypasses, etc

Enhancing Existing Capacity

- Increased funding for accelerated implementation of existing programs
- Enhancing capacity of diverse local organizations to plan and implement complex projects
- Linking funding to tributary and reach-level action plans

Expanding Floodplain Programs

- Need to coordinate complex acquisition and restoration proposals at a reach level
- Need for technical support for complex designs/assessments
- Need for significant funding
- High risk of missed opportunities
- Development of future scenarios for floodplains with local policy makers

Create a Fast & Effective Habitat Protection Program

- Land use regulation alone has limited effectiveness
- Existing publically-funded programs for acquisition of habitat are unwieldy
- Opportunities to protect significant habitats are lost when priorities are not clear & funding takes years to assemble

Bull Trout Recovery Needs

- Need to address habitat issues specific to Bull trout in headwater reaches
- Local action plan under development

Summary

Derek Sandison