Integrated Restoration on the Lochsa

The Nez Perce Tribe and
Clearwater National Forest
Partnership

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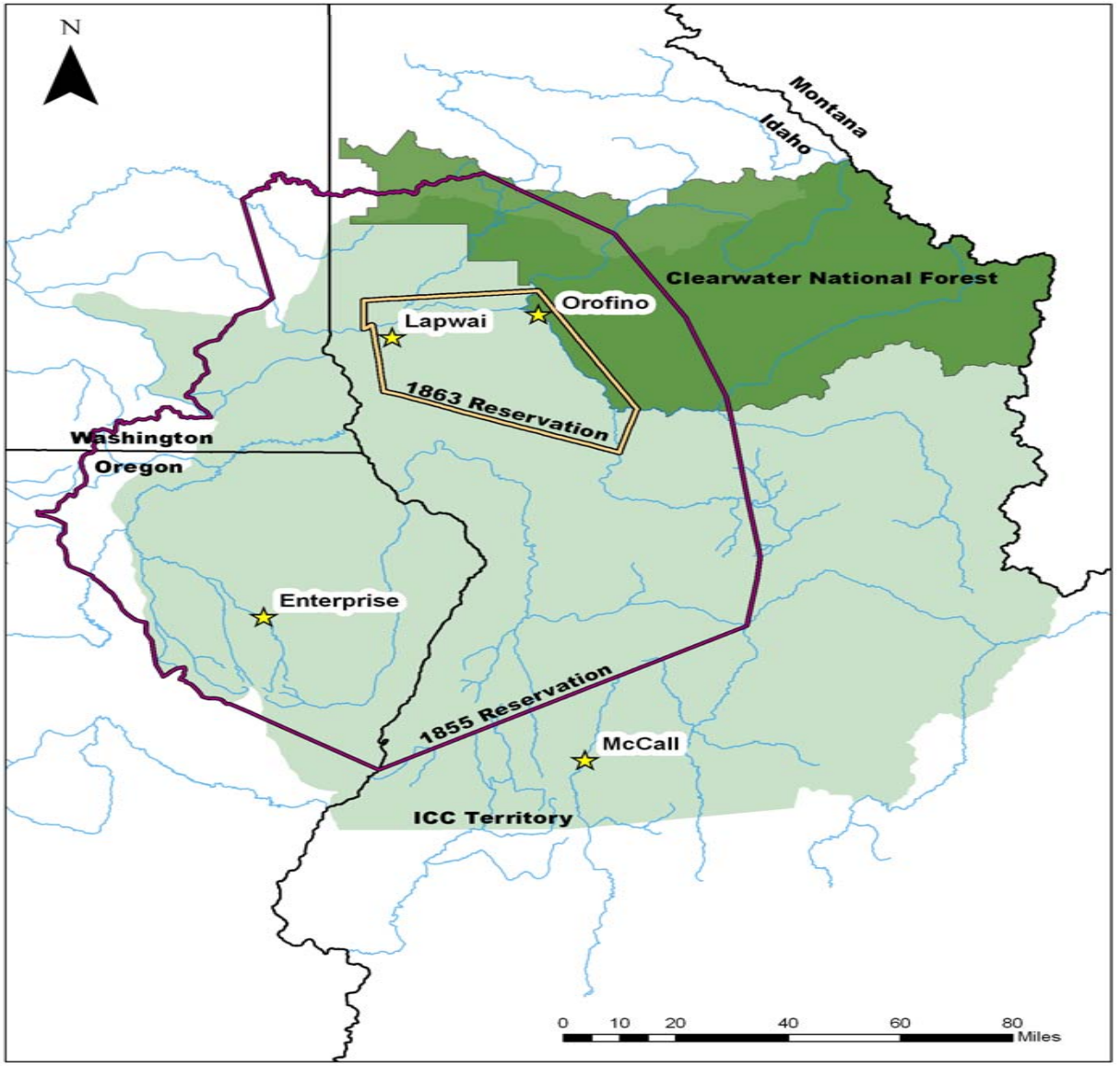
Outline of Presentation

- Introduction to Partnership
- Background of Road Decommissioning Program
- Evolution of Integrated Restoration
- Culvert Replacement
- Road Improvement
- Invasive Plants
- Adaptive Management

Nez Perce Tribe Treaty Territory (13.3 Million Acres)



Partnership History with the Clearwater National Forest

- Perfect Timing
  - Beginnings of NPT-Watershed Division coincided with the acceleration of the CNF-Watershed Restoration-Road Obliteration program
- Implementation in Upper Lochsa and Lolo Creek in 1997
- On the Lochsa, our focus started with road decommissioning in response to flood events of ’96
- Partnership able to do far more than individual organizations

Lochsa Road Decommissioning

- Over 320 miles decommissioned
- Opened over 55 miles of tributary habitat by removing failed culverts

Road Decommissioning Goals

- Reduce risk of mass failure
- Reduce erosion and sedimentation
- Restore slope hydrology
- Restore ecosystem processes
- Eliminate unnecessary roads


KOMATSU
2008

Evolving to an Integrated Program

- Just as the Nez Perce Tribe Fisheries Department recognized in 1995 that restoring fisheries couldn't just be about supplementation, our restoration program realized we couldn't meet our goals without…
- Expanding our concept of restoration
- Adopting a ridgetop to ridgetop approach
  - Linking aquatic and terrestrial ecosystem processes
  - Working toward a more holistic approach to restoration
  - Using monitoring data to adapt techniques
  - Research

Other Problems Addressed

- Connectivity of Stream Habitat (fish passage)
- Invasive Plant Encroachment
- Treating the Roads We are Keeping

- Challenges:
  - Integrating our restoration with other management actions…fire suppression, “re-hab” after fire suppression, salvage sales, etc.
  - Setting priorities based on connecting high quality habitat rather than just by opportunity
  - Monitoring

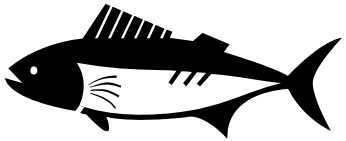
Barrier Culvert Replacement

- Design culvert to match physical properties of stream channel including:
  - Active channel width
  - Stream gradient
  - Stream substrate

"The Invisible Crossing"

Focus on PHYSICAL PROPERTIES of stream

Do NOT design for individual species



Stream simulation includes vegetation

Culvert Replacement Accomplishments

- 23 Barrier culverts replaced 2000-2008
- 4 Barriers removed (replaced with bridges)
- Over 70 miles of high quality habitat opened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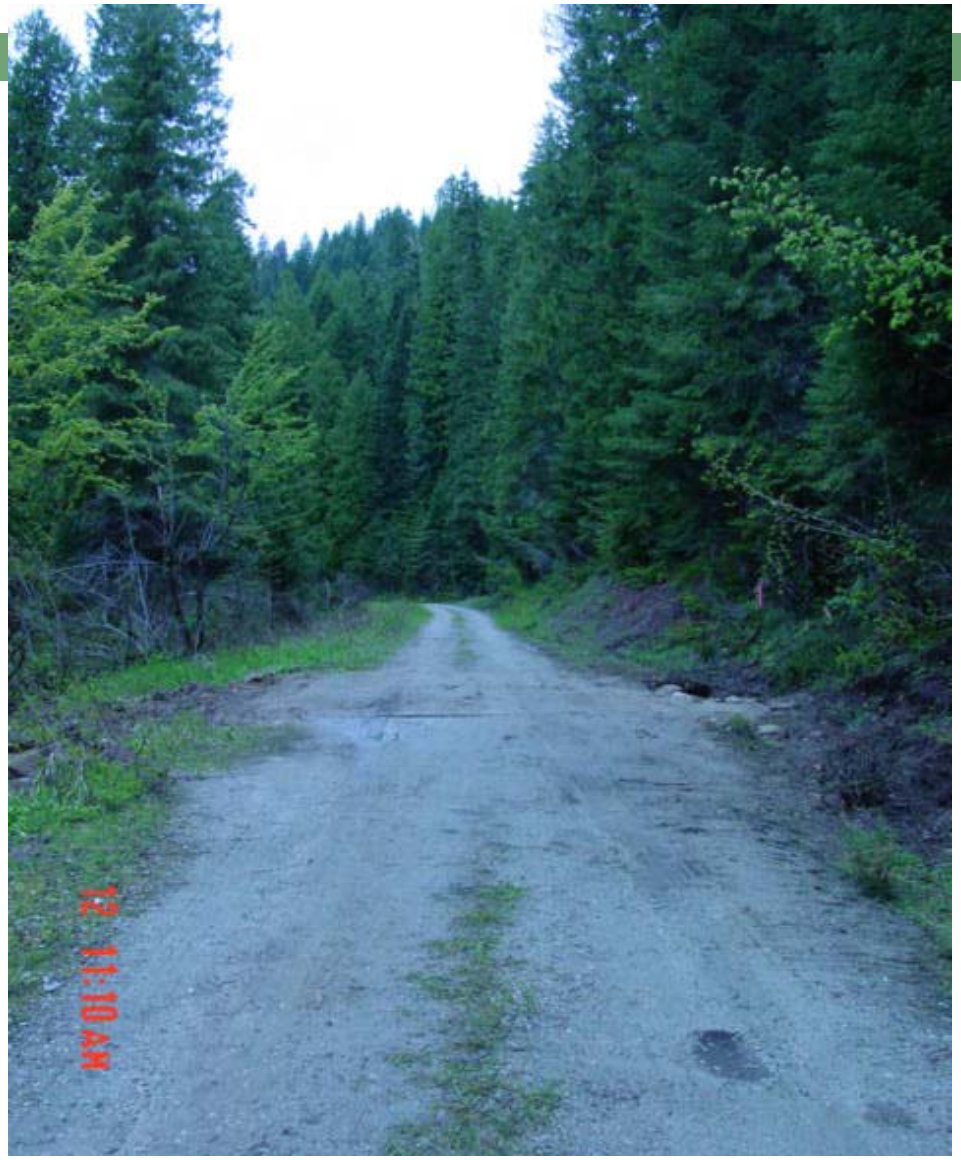
Road Improvement

- Improvements include:
  - Culvert replacement
  - Re-surfacing
  - Grading

  Improvements must be maintainable



Something we hadn’t thought of…

Restoration activities provide an ideal corridor for invasive plant spread

Invasive plants out-competing natives in revegetation efforts.

Spotted knapweed along a recontoured road

Incorporating Invasive Treatment

- Pre-Treatment
- Herbicide
- Prescription Grazing
- Coordinating with partners

Some Benefits of Partnership Flexibility

- We are able to respond to the things we see in the field.
- We have the funding to try things.
- We have maintained a contracting method (hourly) that allows flexibility.
- Observations and pace of program allowed us to develop a monitoring program as a feedback loop
- We have been fortunate to have some of the key people in place for over 10 years, and we have learned how to work within the bureaucracy