Confederated Tribes of the Warm Springs Reservation of Oregon
Habitat Restoration within the Ceded lands of The Confederated Tribes of the Warm Springs Reservation of Oregon

River Restoration Northwest 2009

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Habitat Program Manager
Presentation Outline

- Brief overview of Tribal history
- Define Ceded lands and Treaty of 1855
- Discuss Ceded lands habitat objectives
- Present our strategy to achieve these objectives
- The climate change slide
- Present one specific example of this strategy in action in the John Day Basin.
  - Conservation property management
  - Restoration on private lands
    - Coming up next
Tribal History

- The Confederated Tribes of the Warm Springs consist of three different tribal groups
  - Wasco
  - Warm Springs
    - Lived along the Columbia and Cascade Mountains
  - Paiutes
    - Lived throughout the vast plateaus of southeastern Oregon

Over the centuries the three Tribes developed an extensive economic network that centered on Mid-Columbia region which depended on the Columbia River and its resources, particularly salmon.
Treaty of 1855

- Established the Warm Springs Reservation ~600,000 acres for exclusive use and management

- Treaty was not a granting of rights, but rather a reservation of rights by the Tribes
  - Reserved exclusive use rights to all Reservation lands

- Ceded or (relinquished) the ownership of 10 million acres of ancestral lands to the United States
  - The Tribes retained the right to harvest fish, wildlife, and cultural plants along with the right to pasture livestock within these lands.
  - Also retained the right to co-management of the resources within these Ceded lands
Tribal Ceded Lands Habitat Objectives

- Protect and enhance habitat for all culturally significant Tribal resources
  - Recovery to sustainable harvest levels
- Ensure Tribal membership has access to these resources
- Promote and restore diversity and sustainability
  - Ecological process
- Foster partnerships with private landowners, co-managers and resource managers to achieve greater results.
Strategy
How will we achieve these objectives

• Actively participate in planning and management activities that affect culturally significant resources or access to the resources.
  • Regional salmon, steelhead and lamprey recovery planning
  • USFS planning at the Forest and Project Level
  • Wild and Scenic River Management Plans
  • Federal Land Exchanges
  • Assist in the development of conservation planning with the State, Counties and Irrigation Districts.

• Acquire and manage conservation properties that have high restoration and recovery values
  • Integrate ecological process and function into restoration designs
  • Demonstrate that both agricultural and conservation values can be managed in harmony with minimal economic impact

• Work with private landowners
  • Improve irrigation efficiency
  • Ensure fish passage
  • Riparian protection
  • Instream habitat projects
  • Livestock management
  • Upland health
John Day River Subbasin

- Second longest undammed river in the United States (lower 48)
- Rural watershed: Size 8,000 sq. mi., Population <8,000
- No Fish Hatcheries (Managed for wild salmonids)

- Contains wild spring Chinook Salmon, summer steelhead/redband trout
  - Pacific lamprey
  - westslope cutthroat trout, and bull trout
  - all three native mussel species
John Day River Basin

Areas shown in yellow are likely most at risk for loss of snowpack from near-term climate change.

Legend
Temp (C)
- Blue: < -5
- Green: -5 to -2
- Yellow: -2 to +1
- Orange: +1 to +4
- Red: > +4

Analysis by CRITFC
Data Source: PRISM, 2007
(Oregon Climate Service Group)
The Middle Fork represents one of the best opportunities in wild salmonid population recovery efforts.
Target Species:
- Spring Chinook Salmon
- Mid-Columbia Summer Steelhead (ESA – Threatened)
- Bull trout (ESA – Threatened)

No major irrigation withdrawals threatening flow
Unique landownership in critical habitat areas
Intensive momentum in habitat protection and recovery
Tribal Conservation Areas

- Bonneville Power Administration funded
- Acquired for anadromous fish critical habitat values
- Habitat in marginal quality after decades of overgrazing, land clearing, logging, and mining activities
- Limiting factors include water temperature, lack of riparian habitat, lack of instream habitat
- Tribes have recognized these MFJD River properties of vast importance, so...

... Restoration!
Gail DeWitt, 1953. The DeWitt Family homesteaded portions of the Oxbow property in the early 1900s. The homestead was also a Wells Fargo stage stop at one time.
### Chinook Salmon Spawning

<table>
<thead>
<tr>
<th>Year</th>
<th>Oxbow Redds</th>
<th>OCA % of River</th>
<th>Forrest Redds</th>
<th>FCA % of River</th>
<th>Total Redds on MFJD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20</td>
<td>11.8%</td>
<td>59</td>
<td>34.9%</td>
<td>169</td>
</tr>
<tr>
<td>2007</td>
<td>18</td>
<td>21.2%</td>
<td>41</td>
<td>48.2%</td>
<td>85</td>
</tr>
<tr>
<td>2006</td>
<td>23</td>
<td>11.6%</td>
<td>89</td>
<td>44.7%</td>
<td>199</td>
</tr>
<tr>
<td>2005</td>
<td>19</td>
<td>10.7%</td>
<td>75</td>
<td>42.1%</td>
<td>178</td>
</tr>
<tr>
<td>2004</td>
<td>39</td>
<td>12.2%</td>
<td>105</td>
<td>23.8%</td>
<td>319</td>
</tr>
<tr>
<td>2003</td>
<td>39</td>
<td>16.5%</td>
<td>141</td>
<td>44.5%</td>
<td>236</td>
</tr>
<tr>
<td>2002</td>
<td>35</td>
<td>9.0%</td>
<td>104</td>
<td>36.2%</td>
<td>389</td>
</tr>
<tr>
<td>2001</td>
<td>47</td>
<td>13.3%</td>
<td>162</td>
<td>29.4%</td>
<td>354</td>
</tr>
<tr>
<td>Averages</td>
<td>30</td>
<td>13.2%</td>
<td>97</td>
<td>38.0%</td>
<td>251.4</td>
</tr>
</tbody>
</table>
Enhancing the aquatic habitat is a primary goal.

Demonstrating that agricultural and conservation values can be managed in harmony is a key element in our strategy.
Various fencing, planting, irrigation, grazing, and screening efforts.

Management of properties is focused on habitat enhancement and protection.
CREP

CONSERVATION RESERVE ENHANCEMENT PROGRAM

- ~250 acres of riparian enrolled/protected via riparian fencing
- Provided funding for 72,000 trees and shrubs

Check out our poster on plant survival
CREP (con't.)

- Thorough monitoring
- Heavy ungulate browse supression
Eliminated a fish passage barrier opening up 1.5 miles of habitat
Used a remnant channel to create over a quarter mile of additional habitat
Dead Cow Gulch Project – Con't.
Placer to Davis Project - 2008

Rock Barb Removal (Before & After)

Large Woody Debris Structures
## Post-Project Fish Use Comparison

<table>
<thead>
<tr>
<th>Placer to Davis Snorkel Surveys</th>
<th>Aug. 29, 2006 – All Pools within restoration reach, mean temp. ~66.2°F</th>
<th>Aug. 1, 2008 – 17 constructed LWD sites only, mean temp. ~60.6°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinook salmon parr</td>
<td>13</td>
<td>39</td>
</tr>
<tr>
<td><em>O. mykiss</em> (&lt;6”) Steelhead/trout parr</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td><em>O. mykiss</em> (&gt;6”) Redband trout</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>
Habitat?
How does a biologist characterize habitat for an engineer?

HSC Habitat Suitability Criteria
Represent how suitable a particular gradient of depth, velocity, substrate, cover, etc is to a target species and life stage.

Fall Chinook spawning

Frequency distribution of velocity observations
1.5-3.5 ft/sec
from
Dr. Tom Hardy
Klamath Flow Study 2001
Chinook Fry <55mm

Velocity distributions

0-1.2 ft/sec

Depth observations

0.5-1.5 ft
Cover
Observations based on distance to cover
Cumulative percentage (blue) less than 2 feet
Identified Projects

Oxbow property

- Beaver to Ragged Reach Instream Habitat - 2009
  - Similar to Placer to Davis, 0.5-mile, install 15 log jams, remove 34 rock barbs

Bureau of Reclamation staff from Boise and Denver are completing the design for these projects
Future Projects (continued)

- Oxbow Tailings Channel Restoration – Start 2010
  - Likely phased over 2+ years, 1.5 miles of river
    - Currently split into two channels
  - Severely degraded habitat, channel construction planned currently working on design.
    - Three major creeks enter the river through this reach
Future Projects (continued)

Forrest property

- Forrest Floodplain Re-connect 2011-2012?
  - Historic railroad grade bisects the valley
Partners with Intensively Monitored Watershed (ISEMP/NOAA)

Property scale status and trend monitoring

Watershed scale fish population monitoring

Dr John Selker at OSU is using fiber optic to define the role ground water has on water temperatures
Conclusions

- Exciting times for the Tribes and Fish on the Middle Fork John Day River
  - “Accords MOA” with BPA is providing additional funds for program and project expansion

- Starting to see results with our initial projects

- Interdisciplinary Team formed for our restoration design development

- Monitoring in place to measure results

- Great staff in place determined to obtain results
Questions?