



The CTUIR First Foods Management Approach: An Indigenous Knowledge System Informs Applied Salmon Management.

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Confederated Tribes of the Umatilla Indian Reservation

Pacific Salmon Commission Seminar Series
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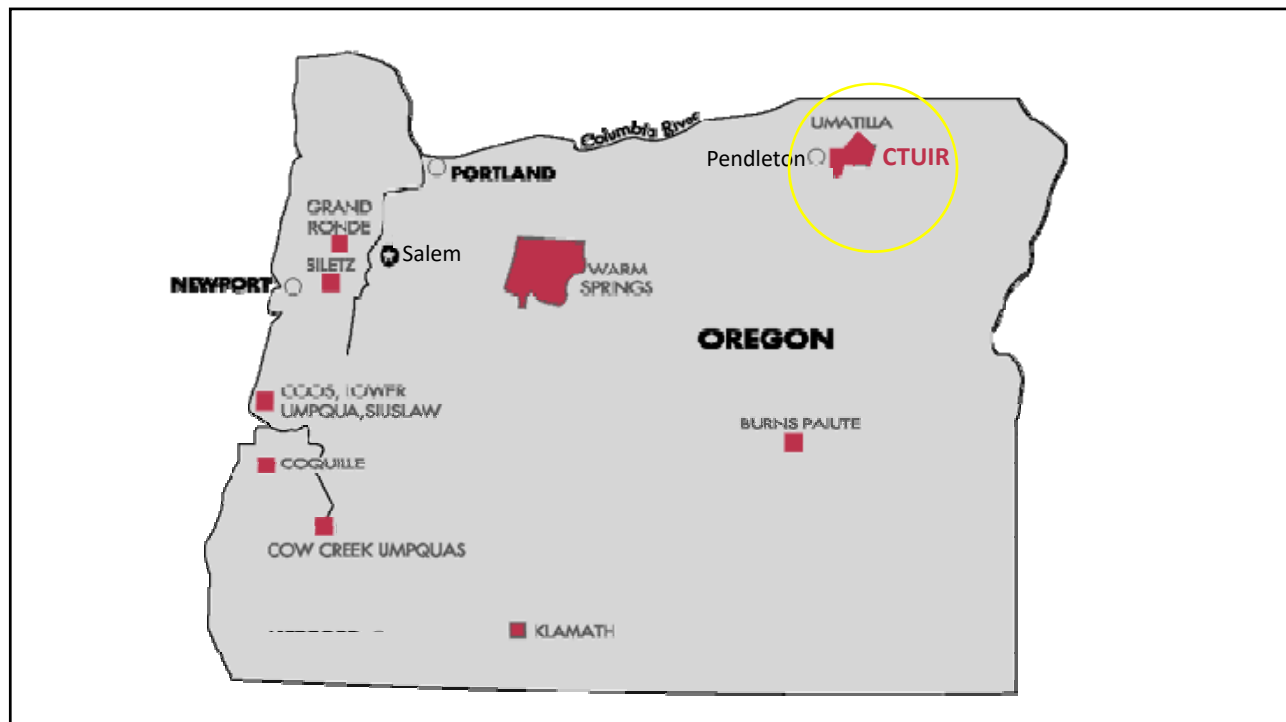


Seminar Themes:

Freshwater Habitat Challenges | Forecasting Environmental Variation | Management Strategies for Uncertain Times | Changes in Salmon Life History & Productivity

Presentation Overview

1. Confederated Tribes of the Umatilla Indian Reservation Overview;
2. First Foods Mission Background;
3. River Vision for applied First Foods Management;
4. Next Steps Highlights in CTUIR Efforts.



ABORIGINAL TITLE LANDS
Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes of the Umatilla Indian Reservation

Treaty of 1855

Confederation of:
Umatilla;
Walla Walla; and
Cayuse.

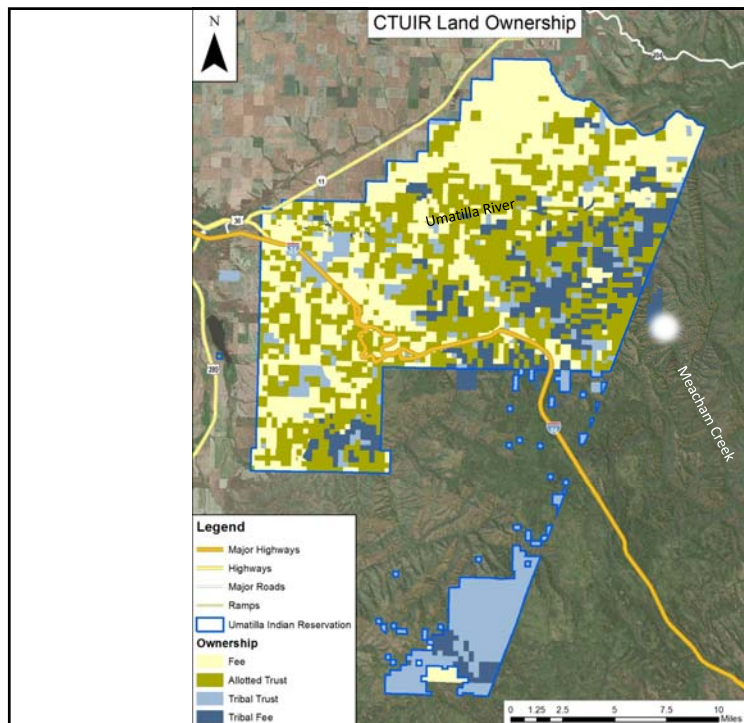
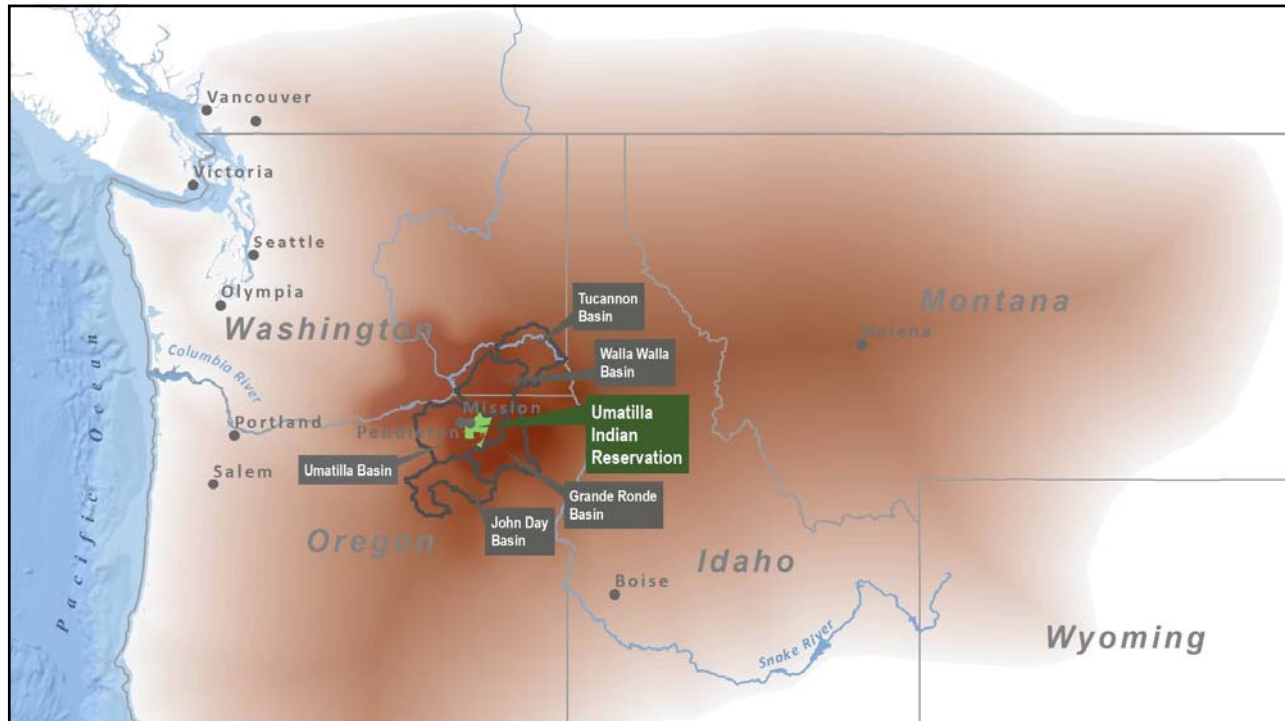
1,500 members (BIA Census)

6.4 million acre Ceded Lands

UIR Land Base
1859 Survey - 254,699 acres
Dawes Allotment Act: 158,000

Restoration: 172,000
“checkerboard” ownership

Currently about 3,100 members



Umatilla Indian Reservation
Current Land Ownership



First Foods Mission

To protect, restore, and enhance the First Foods - water, salmon, deer, cous, and huckleberry - for the perpetual cultural, economic, and sovereign benefit of the CTUIR.

We will accomplish utilizing traditional ecological and cultural knowledge and science to inform:

- 1) population and habitat management goals and actions; and
- 2) natural resource policies and regulatory mechanisms.

Community Values



"We need cold, clear, pure water and salmon"
- *átway* Louie Dick, CTUIR Member, 1981-82

"You're always talking about the men's foods.
Who is going to take care of the women's foods?"

- Marie "Butch" Dick, CTUIR Member and wife of Louie, 1988-89



First Foods

Serving Order

Water

Salmon

Chinook
Coho
Sockeye
Lamprey
Steelhead
Trout
Whitefish
Suckers
Smelt
Sturgeon
Mussels

Deer

Mule Deer
RM Elk
WT Deer
Bison
Bighorn
Mtn Goat
Antelope
Moose

Cous

Celery
Bitterroot
Luksh
púla
Máamin
Panku
Yellow Bell
Mariposa Lilly
Indian Carrot
Camas
Wapto
Black Moss

Huckleberry

Chokecherry
Service Berry
Strawberry
Black Current
Golden Current
Red Current
Mt. Black Berry
Thimble berry
Hawthorn
Mt. Elderberry
Blue Elderberry

Men's Foods

Women's Foods



First Foods Feasts



First Foods Ecology

Serving Order

Water

Aquatics

Chinook
Coho
Sockeye
Lamprey
Steelhead
Trout
Whitefish
Suckers
Smelt
Sturgeon
Mussels

Big Game

Mule Deer
RM Elk
WT Deer
Bison
Bighorn
Mtn Goat
Antelope
Moose

Roots

Celery
Bitterroot
Luksh
púla
Máamin
Panku
Yellow Bell
Mariposa Lilly
Indian Carrot
Camas
Wapto
Black Moss

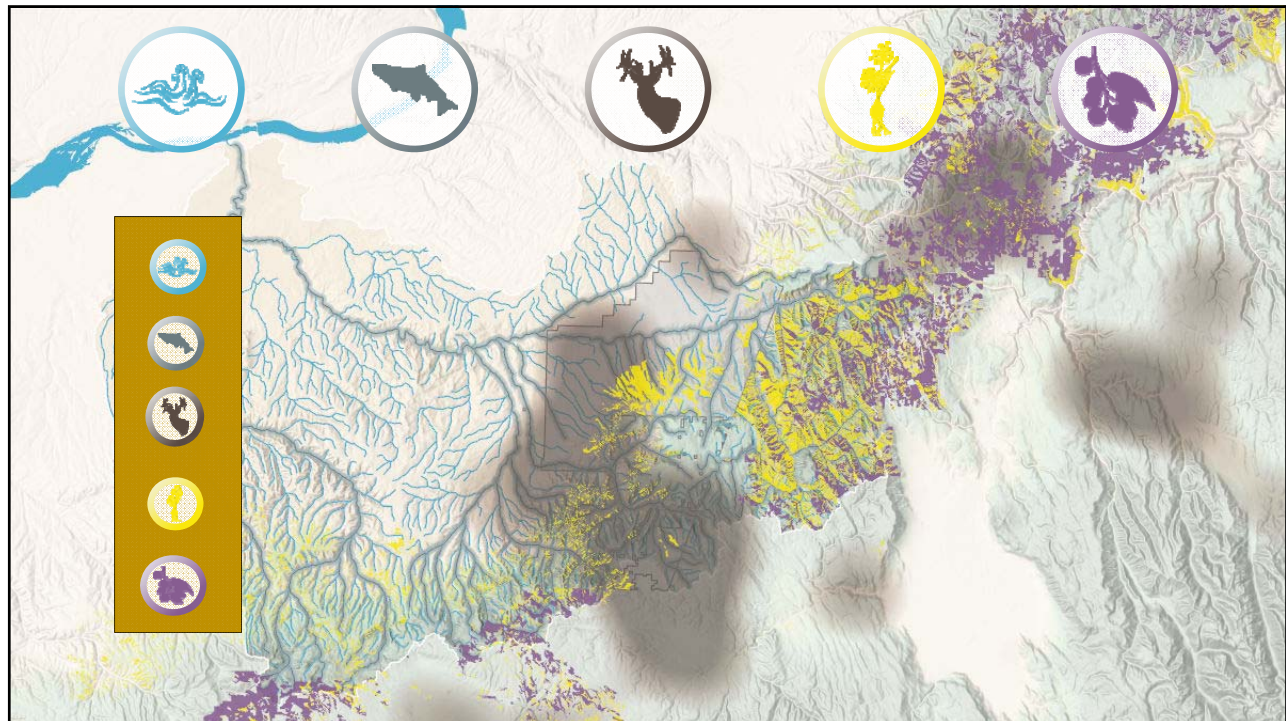
Fruits

Chokecherry
Service Berry
Strawberry
Black Current
Golden Current
Red Current
Mt. Black Berry
Thimble berry
Hawthorn
Mt. Elderberry
Blue Elderberry

Men's Foods

Women's Foods

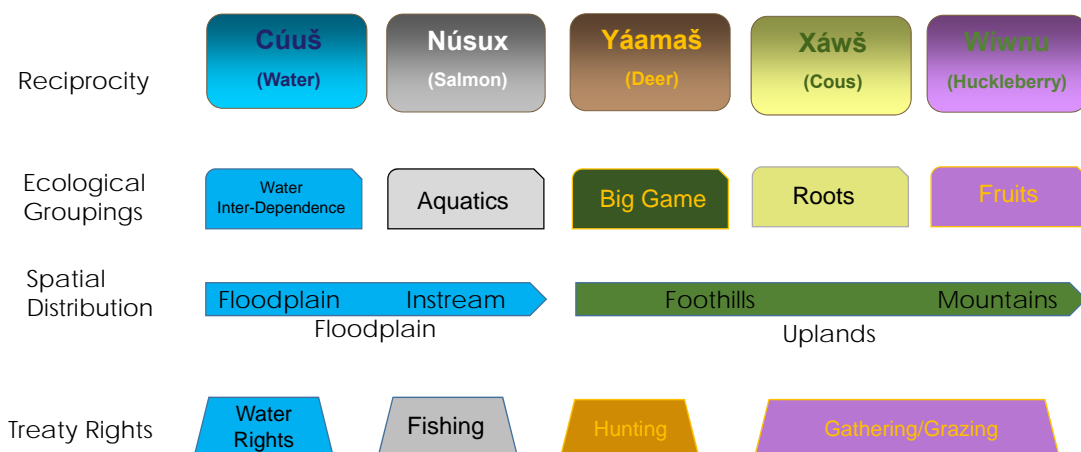
Food-Dependent Culture



Treaty of 1855, Article 1

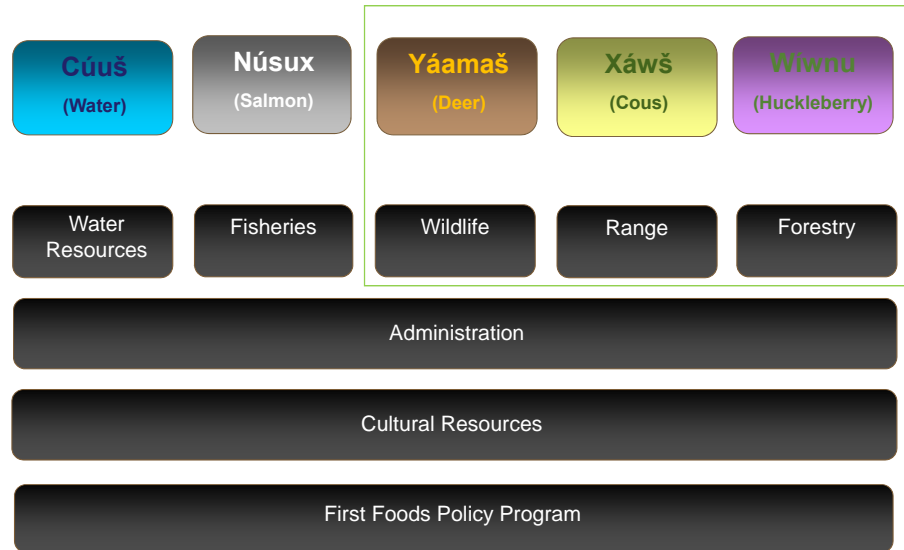
....Provided, also, that the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations in common with citizens of the United States, and of erecting suitable buildings for curing the same; the privilege of hunting, gathering roots and berries and pasturing their stock on unclaimed lands in common with citizens is also secured to them.

First Foods Management Approach

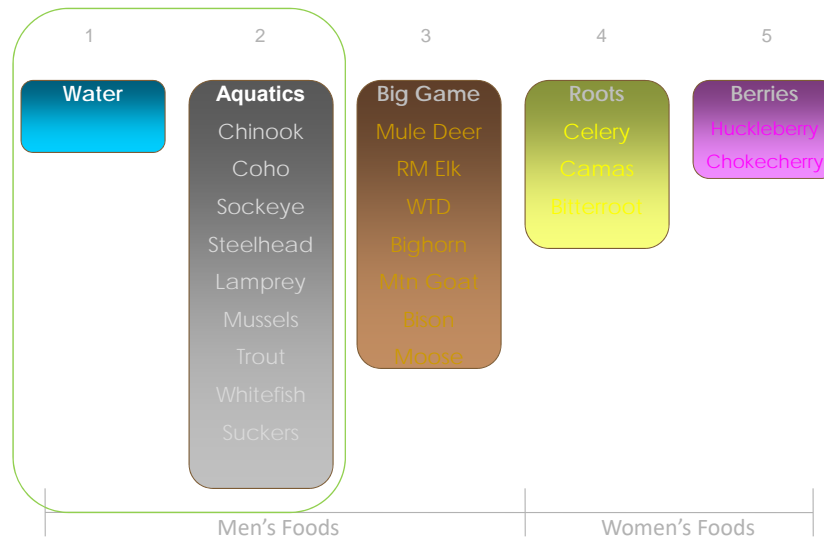


Current Organizational Structure

"Ergonomic Organization"



First Foods Management



CTUIR River Vision



...a healthy river is capable of providing First Foods that sustain the continuity of the Tribe's culture.

Hydrology

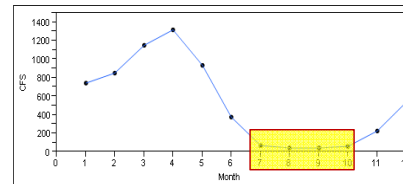


Volume and timing of water

Hydrology



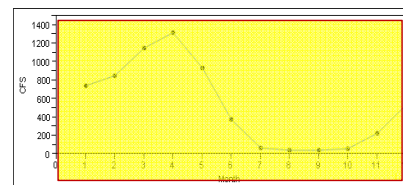
Volume and timing of water



Hydrology



Volume and timing of water



Hydrology



Longitudinal, Lateral, & Vertical

Geomorphology



Topographically Diverse, Accessible by River

Riparian Vegetation

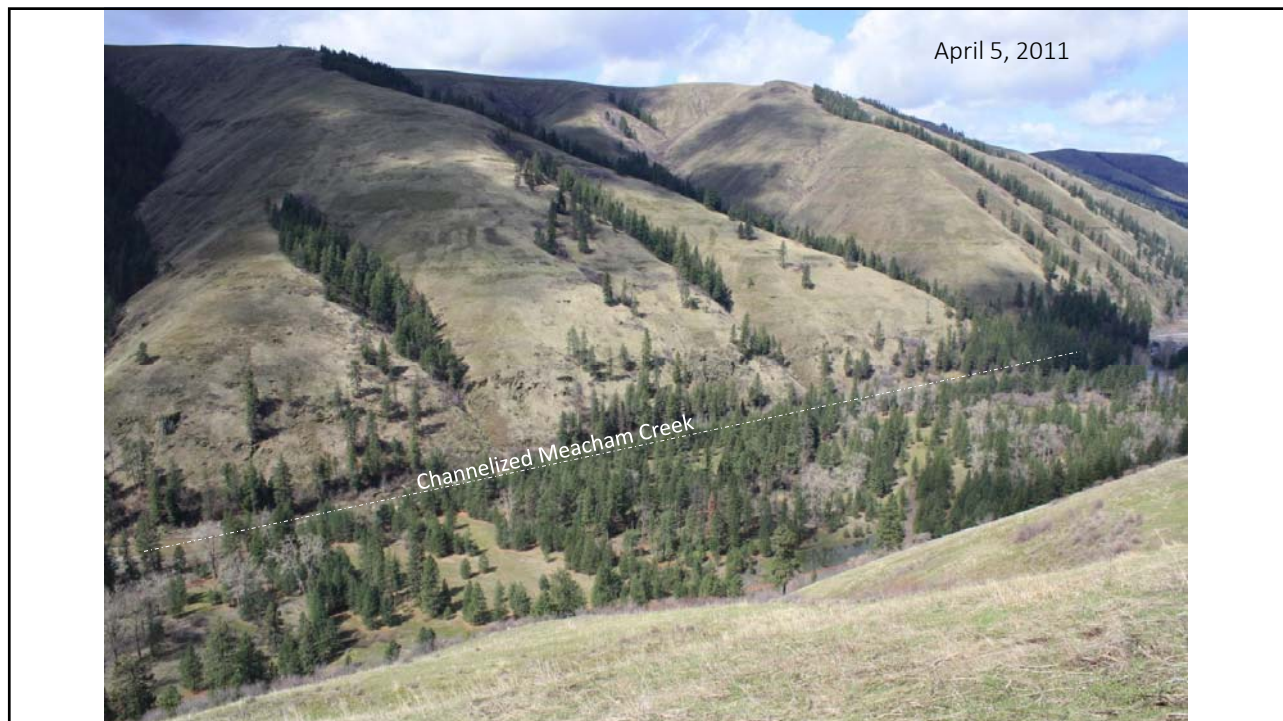
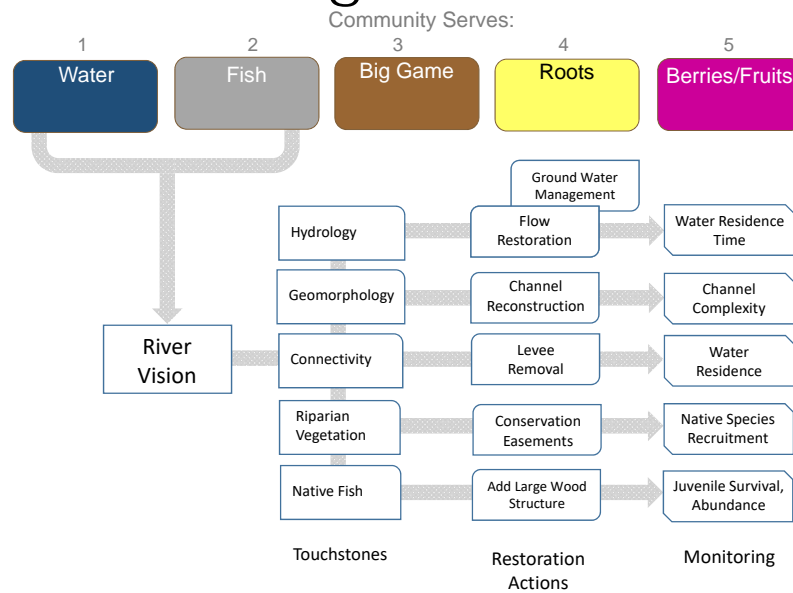


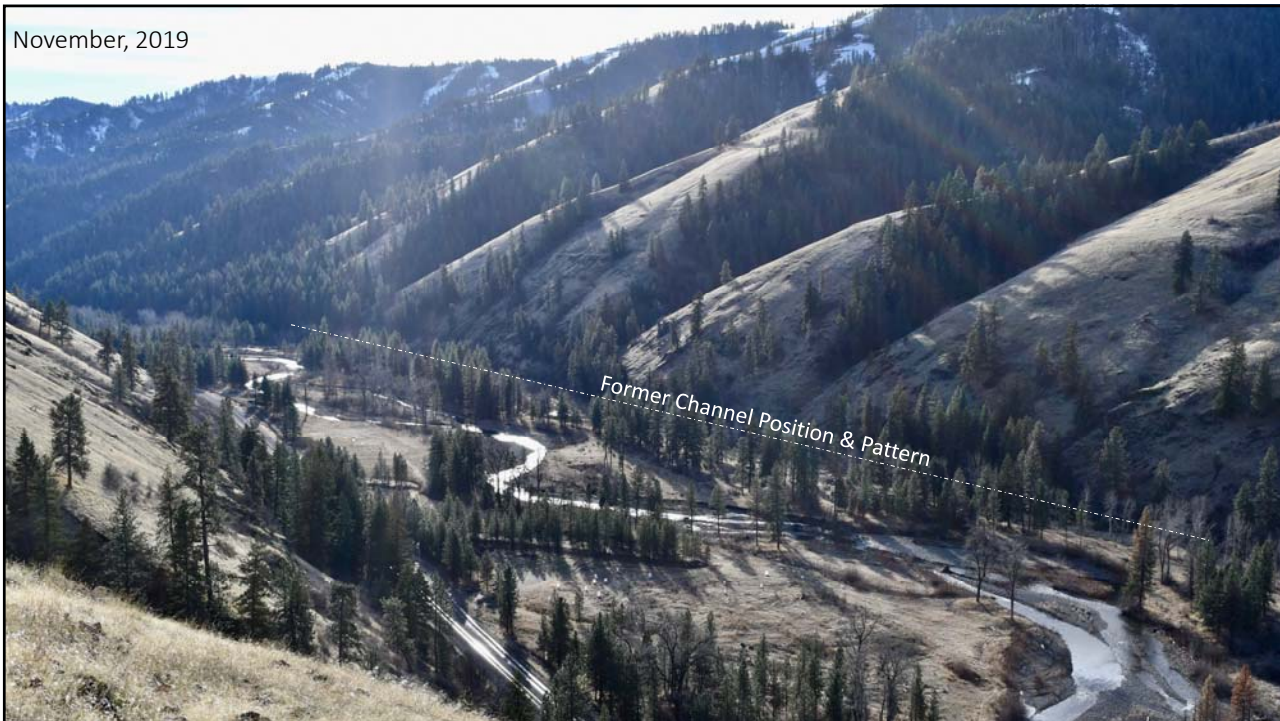
Native Vegetation – Large Wood Inputs, Other

Biota

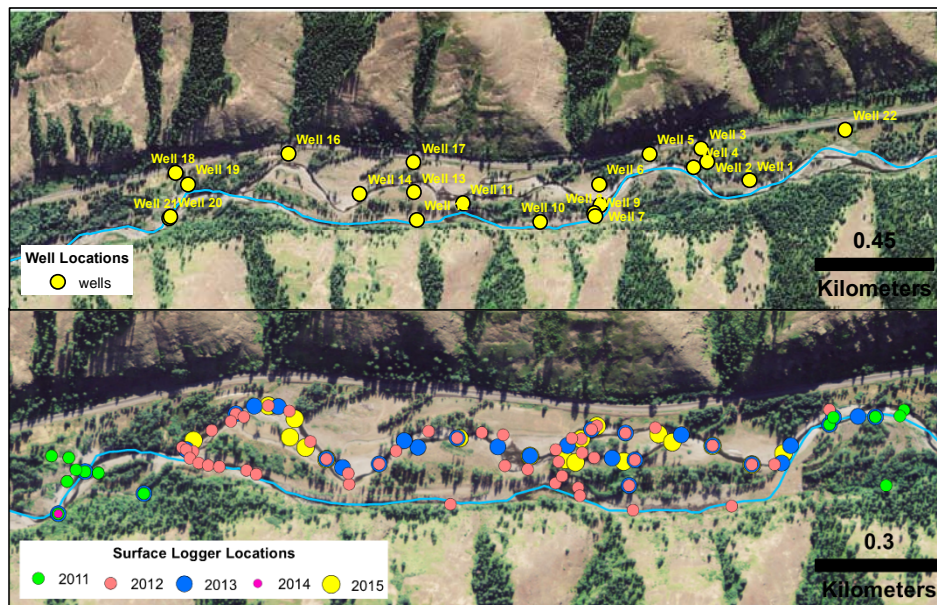


First Foods Management with a River Vision

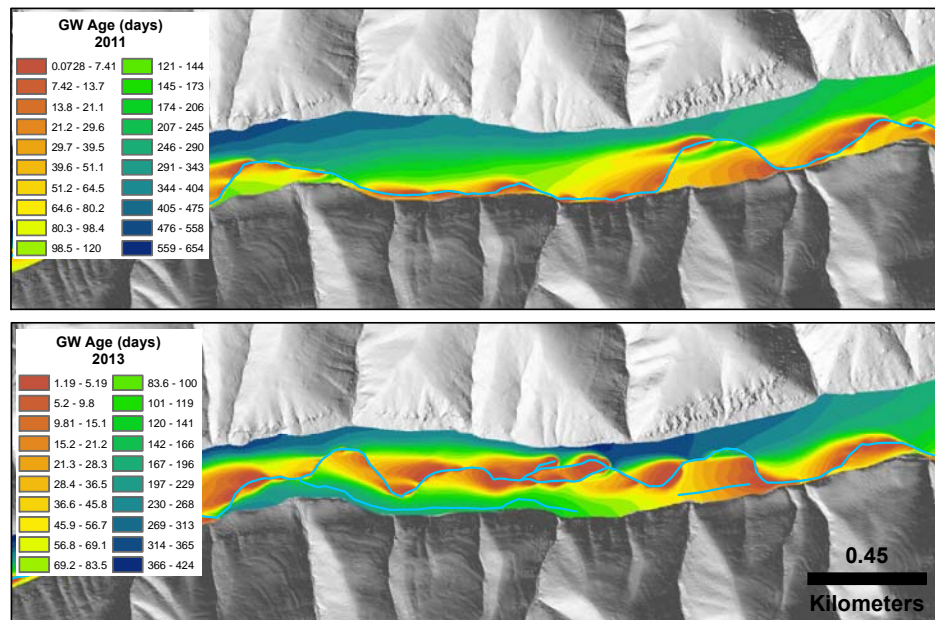




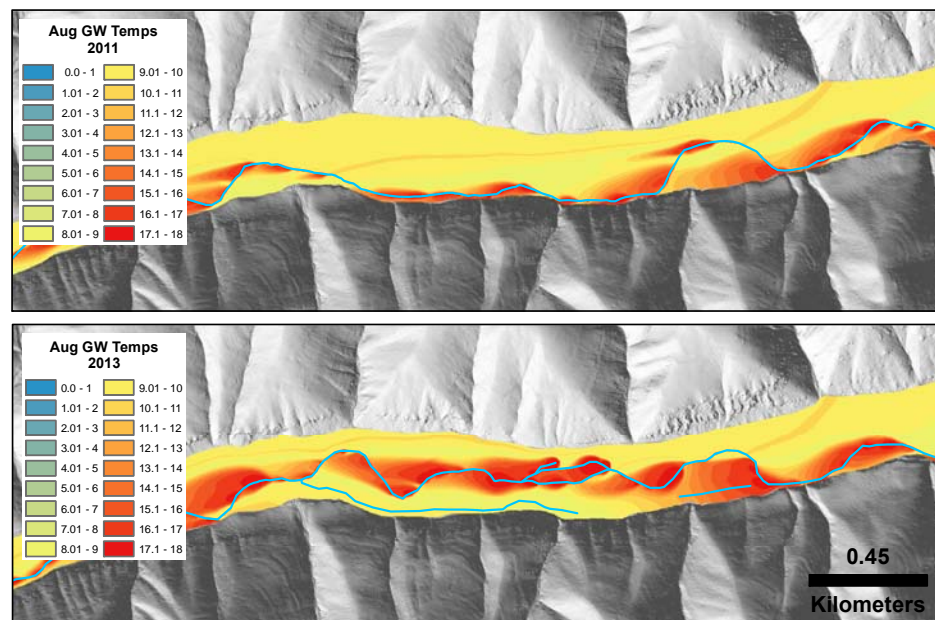
Meacham Creek 2011 Project instrumentation



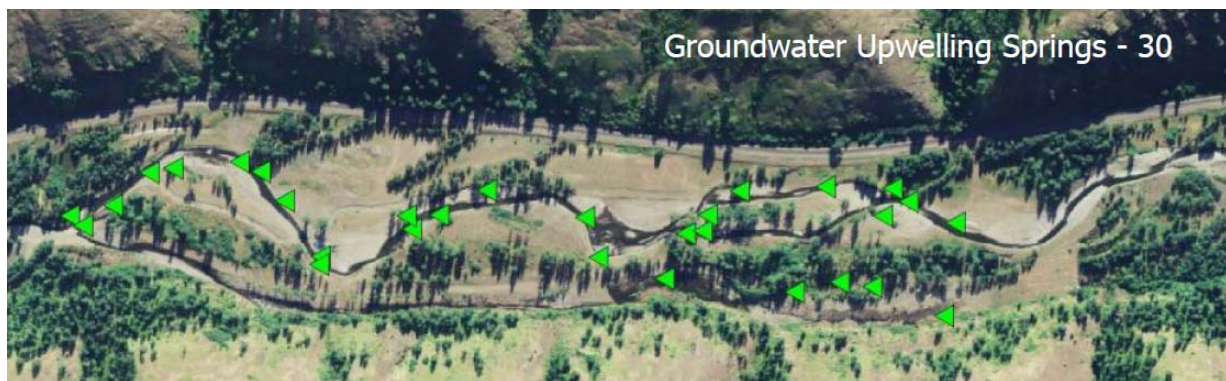
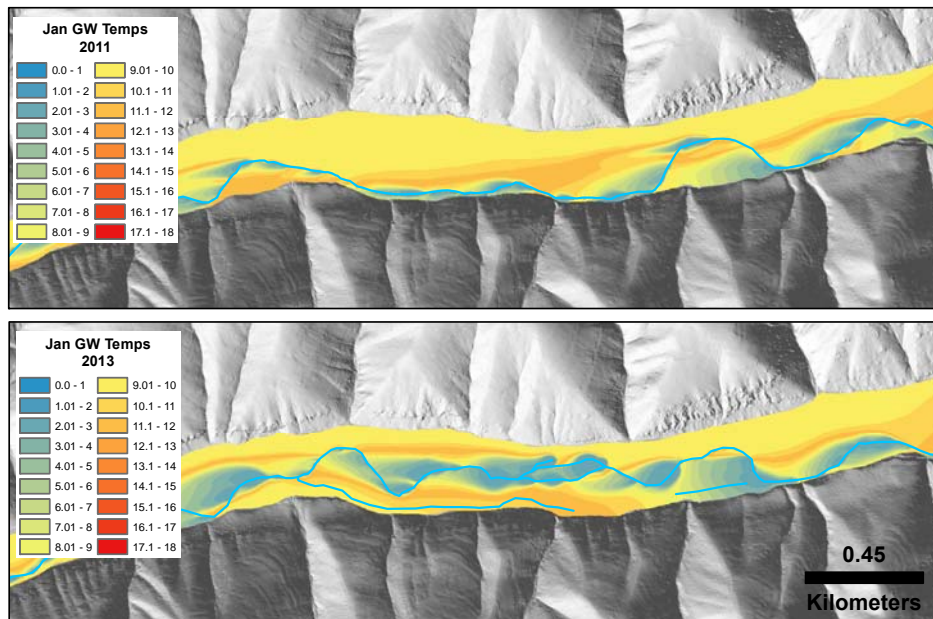
Meacham Creek Restoration Project: Groundwater Residence

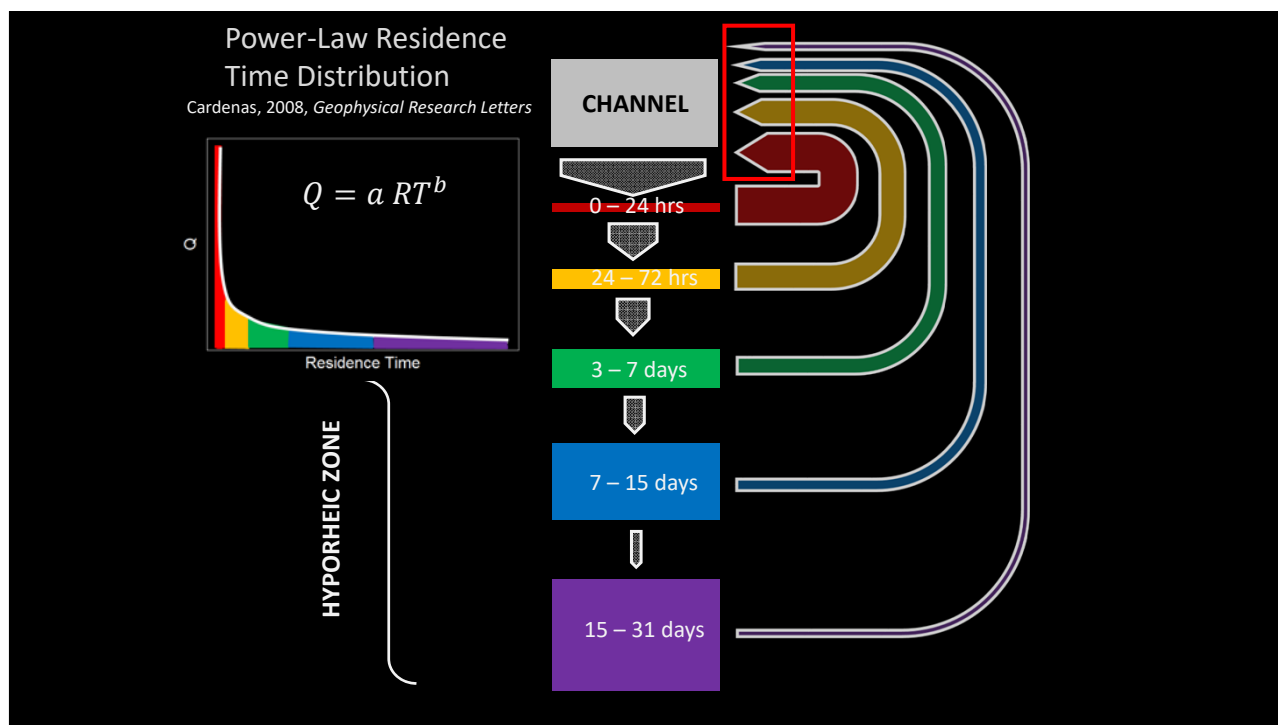
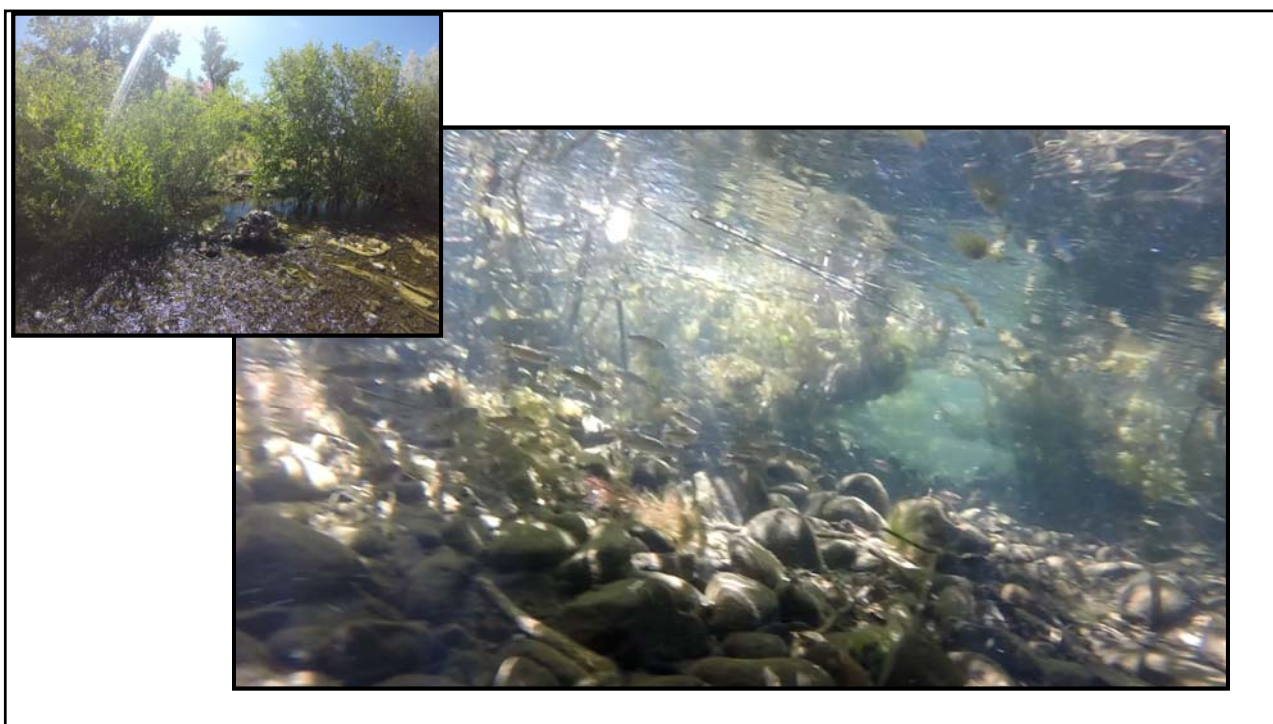


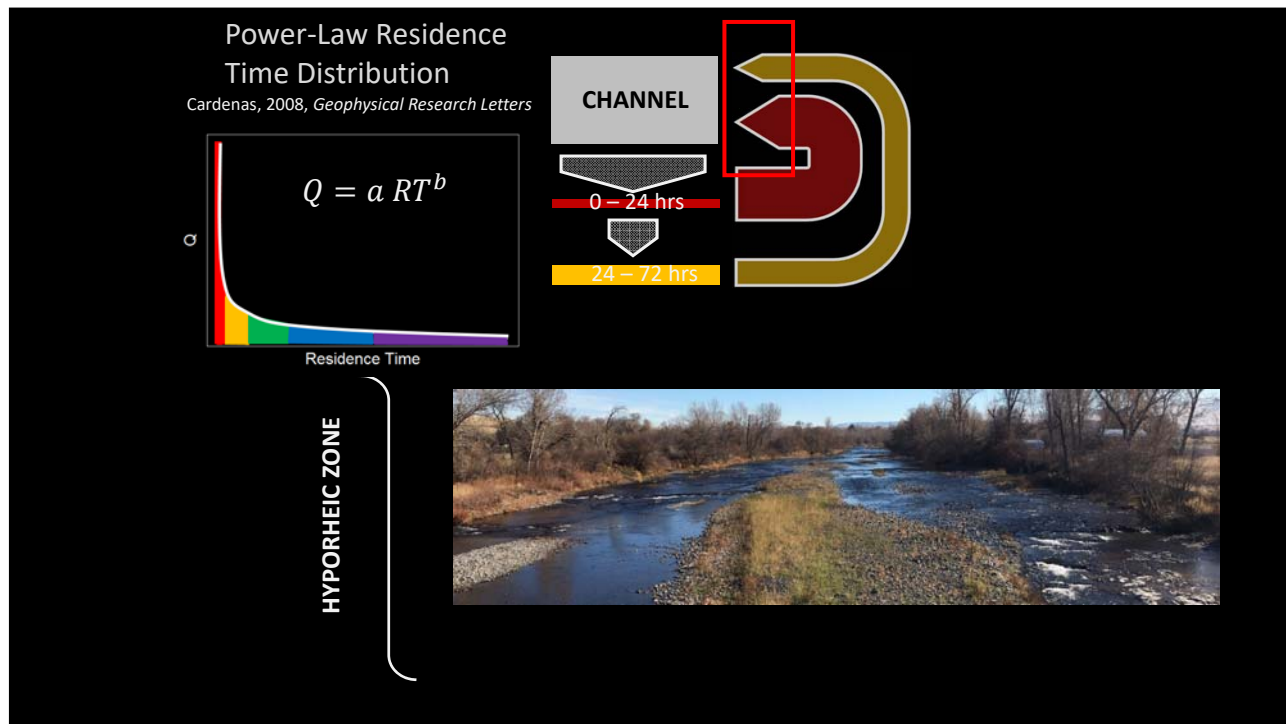
Meacham Creek Restoration Project: Summer GW Temps



Meacham Creek Restoration Project – Winter GW Temps







Next Steps Highlights

1. Updating the River Vision with an increased emphasis on 'Access' and climate change implications;
2. Understanding juvenile fish mortality in the lower reaches of our Ceded Rivers (Productivity theme);
3. Pacific Marine policy needs to address GHG reductions, protect and enhance the marine environment (Productivity).

Summary

1. The First Foods serving order represents a knowledge system of religious, cultural, ecological, and spatial organization;
2. First Foods provide a cultural and ecological framework for water quality and fisheries restoration;
3. First Foods relate directly to CTUIR Treaty Rights, which rights create a federal trust responsibility & opportunities for CTUIR/Federal Agency collaboration;
4. Restoring lateral and vertical connectivity increases thermal diversity in alluvial rivers to the benefit of native fish species;
5. Climate change impacts are expected to increase streamflow variability; and
6. Hyporheic restoration could be valuable in buffering the anticipated impacts of climate change with respect to stream temperature and native fish habitat quality.

Acknowledgements

CTUIR Community Members

River Vision:

Scott O'Daniel, Krista Jones, Geoff Poole, Tim Beechie

Bethy Rogers-Pachio CTUIR GIS Program

Jim Webster, Hydrologist

NOAA NFSC for Invitation