

# ECOLOGY EASTERN REGION NONPOINT WATER QUALITY PROGRAM

## TRIBUTARY RIPARIAN RESTORATION

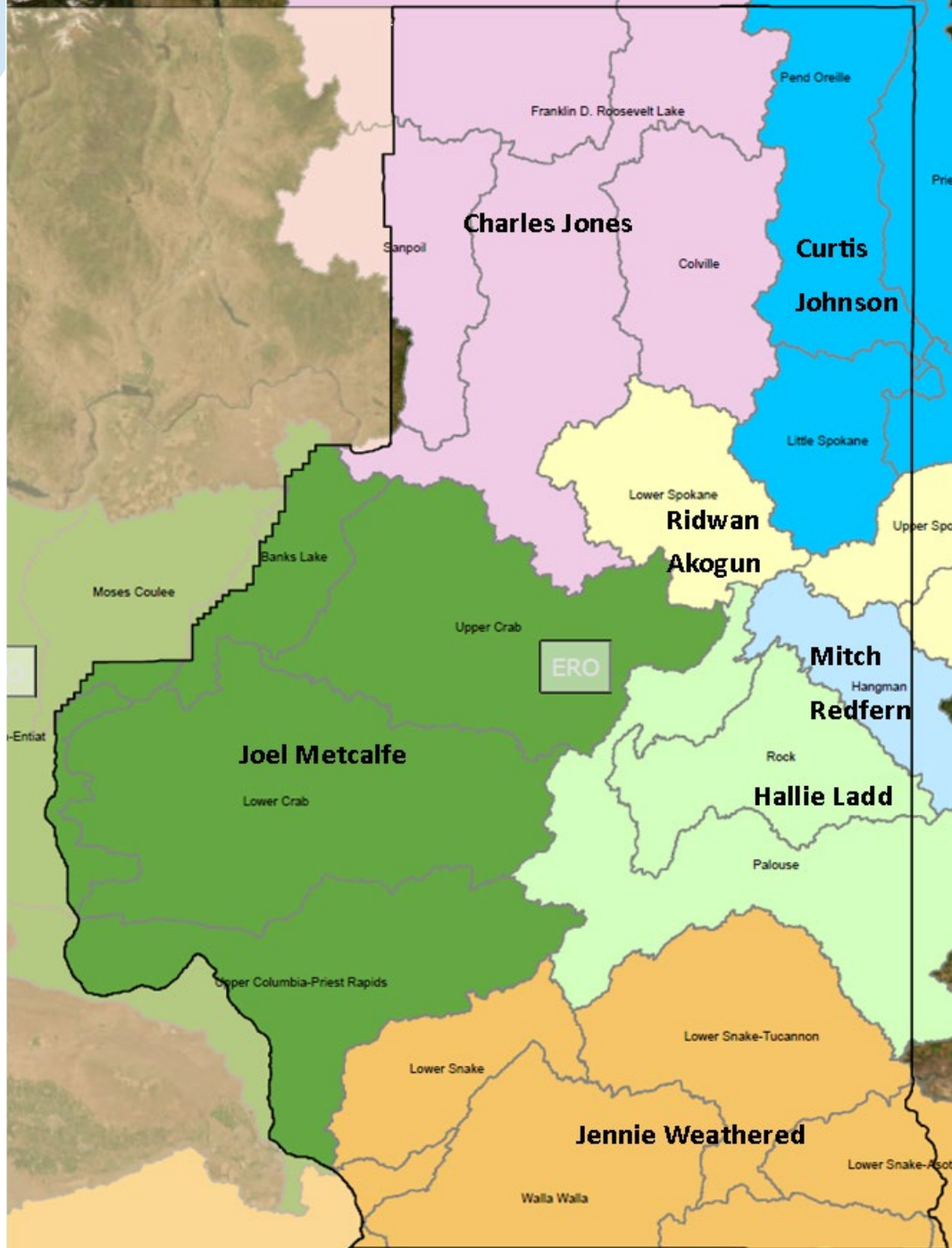
## COLUMBIA TEMPERATURE TMDL

**Joel Metcalfe**  
**Eastern Regional Office**

# Watershed Implementation Leads

## Watershed Based Do-it-all Positions

- TMDL Development & Implementation
- Straight To Implementation Strategies
- Non-point Grant Management
- **Riparian Restoration**
- Non-point Technical Assistance
- Non-point Enforcement & Compliance



# All water leads to the Columbia (in the Eastern Region)

## 2025 Eastern Region Priority Watersheds

- Above Grand Coulee:

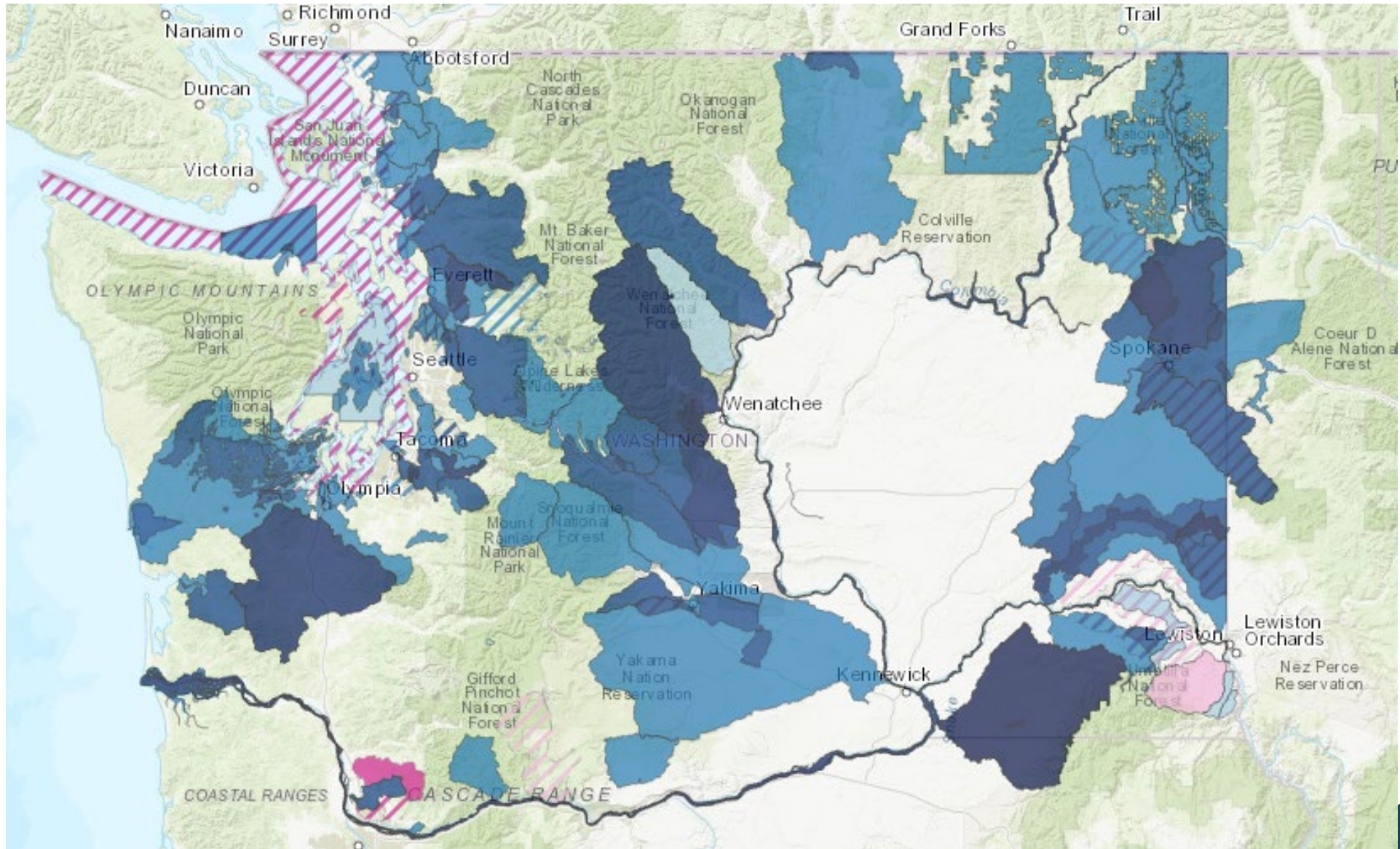
- Hangman Creek Watershed (TMDL)
- Little Spokane River Watershed (TMDL)
- Upper Colville River Watershed (TMDL & STI)
- Pend Oreille (TMDL)
- Hawk Creek Watershed (STI)
- Moses Lake Watershed

- Below Grand Coulee:

- Blue Mountain Tributaries (Southern Snake tributaries) (STIs)
  - Asotin, Tenmile, Alpowa, Deadman, and Meadow Creek
- Whitman County Tributaries North Snake Tributaries (TMDL & STI)
  - Steptoe, Wawawai, Penawawa, Almota, Pataha, and Alkali Flat
- Walla Walla River Watershed (TMDL)
- Palouse River and Tributaries Including Spring Flat Creek (TMDL & STI)



# MAP OF ECOLOGY WATER QUALITY PROJECTS IN WASHINGTON





# LIVESTOCK SITES





# LIVESTOCK SITES





# TILLAGE SITES



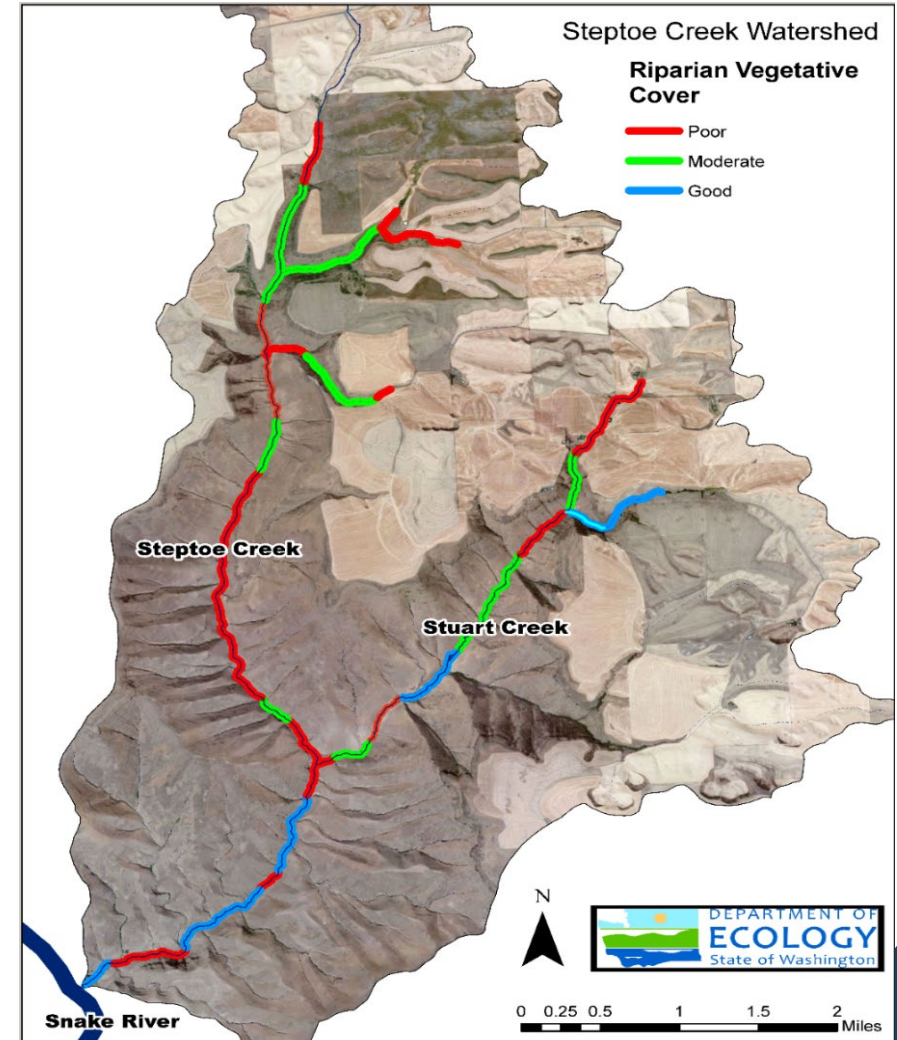






# What an STI Watershed Is...

- Small watershed – Nonpoint issues
- Implementation ready
  - Understand issues and fixes
  - Parcel scale
- Significant implementation achieved in 10 years
- Opportunity for good partnerships
- Ecology staff lead clean-up efforts:
  - site visits, technical and financial assistance, restoration planning, implementation, and enforcement
- Opportunities for funding resources





# Sources Of Funding For Bmps

Ecology Centennial / 319 grants

Continuous Conservation Reserve Program (Continuous CRP)

Conservation Commission grants

Environmental Quality Incentive Program (EQIP)

Ecology Terry Husseman grants

Direct Implementation (DIF) grant

Wetland Reserve Program

Conservation Stewardship Program (CSP)

\*Riparian Restoration -- Ecosystems Services Grants



# Core Best Management Practices

## Ecology Ag Clean Water Guidelines

### Livestock Practices:

- Restore Riparian buffer with trees for shade
- Exclusion Fence
- Provide off-stream (alternative) water source
- Native located away from streams
- Livestock crossings and water gaps
- Pasture management to reduce runoff

### Tillage Practices:

- Restore Riparian buffer with trees for shade
- Native trees and shrubs
- Conservation Tillage
- Removing and avoiding additional tile drains





# Hangman Creek Riparian Restoration and Conservation Program – aka Pilot Program

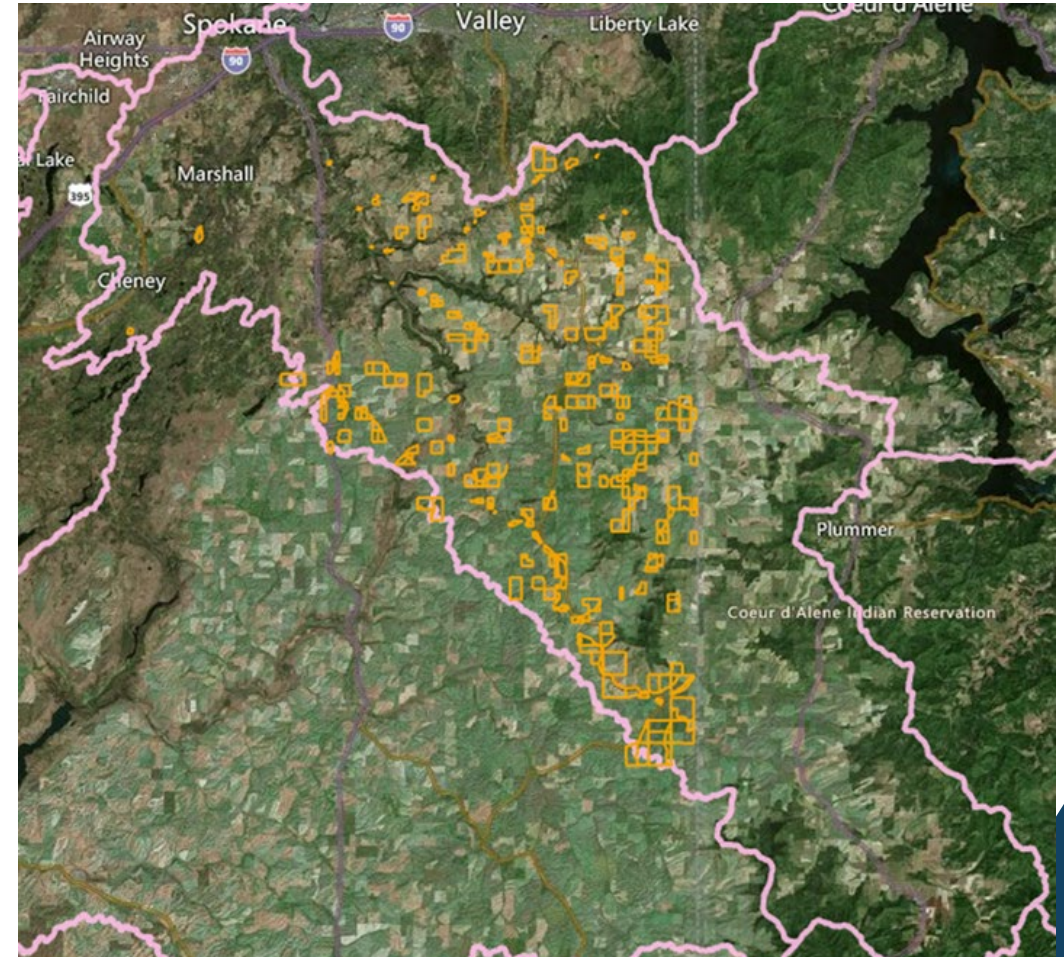


- Partner – Spokane Conservation District
- Eligibility Criteria
  - Hangman watershed
  - Identified and contacted by Ecology
- Program Basics
  - \$300/acre – annually (crop)
  - \$200/acre - annually (livestock)
  - 15-year contracts
  - Riparian Buffer widths follow Ecology Clean Water Guidelines with goal to achieve Site Potential Tree Height and for reduced temperature
- Investment
  - \$8.2M since 2022
  - >350 riparian acres; >25 stream miles
  - Normalizing practice of buffers

# Hangman Creek Results

## 2018 – 2024 (7 years)

- 710 site/ property evaluations
- 100 sites prioritized
- >300 letters
- Conducted >125 site visits
  - 1 on 1 to help people implement practices that fully protect water quality
- 25/100 prioritized sites enrolled or soon to be enrolled in pilot program.
- 70/100 sites have plans in place
- 5 sites received administrative orders





# Improving Hangman Creek

Protecting and restoring the Hangman Creek watershed is important to many, including the Upper Columbia Plateau Tribes, local, state and federal agencies, landowners, and conservation organizations.

The creek once teemed with native salmon and redband trout (a subspecies of rainbow trout) but urbanization, agriculture and deforestation have taken a toll on water quality, riparian (area along streambanks) and aquatic habitats.

By improving water quality and habitat, the watershed will support fish, wildlife, people, and agriculture for generations.

*Photo credit: David Sams*



Since 2018,  
nearly \$6 million  
has been  
directed to the  
watershed.

Ecology Nonpoint  
Outreach Specialist

Flyer sent to hangman  
watershed residents

By: Marnie Miller-Keas