

# LOWER WENATCHEE RIVER COMMUNITY MEETING

- Welcome and Introductions
- Background on Watershed Planning and Salmon Recovery Planning
- Implementation Priorities and Completed Projects
- Ongoing and Upcoming Efforts

# Watershed Planning

## Wenatchee River Watershed

- Planning Process began in 1999 under RCW 90.82
- Plan Approved in 2006 by local stakeholder group
- All 4 Elements Included: Water Quantity, Instream Flows, Water Quality and Habitat

# Endangered Species Act (ESA)

- Upper Columbia spring Chinook – 1999 endangered
- Upper Columbia steelhead – 1997 endangered, re-classified as threatened
- Bull Trout - threatened

# Lower Wenatchee River Recommended Strategy

- Implement channel connectivity and off-channel projects
- Plant native streamside vegetation (riparian plantings)
- Address dissolved oxygen and pH issues (phosphorus point and non-point sources)
- Water Quantity and instream flow actions

# New Water Policies

- WA Supreme Court cases
- *Swinomish, Foster, Hirst*
- Limits to Ecology's "toolbox"
- More local government responsibility



# Water Quality

## PCB and DDT Source Assessment

- Final report expected early fall
- Additional source tracking and food web bioaccumulation model
- Identify sources



# CASCADIA

CONSERVATION DISTRICT

The Cascadia Conservation District is a non-regulatory, grant-funded organization dedicated to encouraging the wise stewardship and conservation of all natural resources in Chelan County.

Our board and staff members work cooperatively with local landowners and communities to provide technical and financial assistance for soil, water, forest, fish, and wildlife conservation efforts. We currently serve all of Chelan County.

[www.cascadiacd.org](http://www.cascadiacd.org)

# How do we protect our rivers?

- ▶ Riparian Projects
- ▶ Water Conservation
- ▶ Wildfire Risk Reduction Projects
- ▶ Soil Tests
- ▶ Education and Outreach



# Riparian

- ▶ Over 2,000 feet of restored riparian along the lower Wenatchee
- ▶ Work with landowners to develop stewardship plans to clean up waste and plan for long term stewardship of the land
- ▶ Education and community involvement!





# Cashmere Sportsman's Club

- ▶ 1,800 feet along the Wenatchee planted and enhanced riparian
- ▶ Stewardship plan including a lead cleanup that removed approximately 25,000 pounds of lead from the range
- ▶ Long term stewardship plan to maintain and use the riparian area as a wildlife refuge and walking path



# Water Conservation

- Work with private landowners to implement BMP's on their property with cost sharing
- Watering conservation, weed management, fuels reduction, etc.
- 14 acres of irrigation upgrade on pear orchard in Cashmere
  - Impact Sprinklers to Micro
  - Will result in 115,000 gallons reduction in water use in the summer, and 1.3 million over a season
  - Return water into Peshastin Irrigation Ditch System
  - Reduce nutrient leaching and runoff in rivers





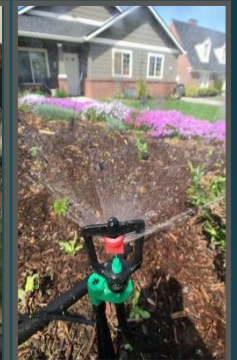
# Wildfire Risk Mitigation

- ▶ Catastrophic wildfire in a watershed can increase erosion and sediment, turbidity, flooding, increased water temperature
- ▶ Fuels Reduction Treatment in Forests with the Cost Share Program
- ▶ Spring and Fall “Free Roving Chipper” Program
- ▶ Working on forest restoration projects that span private and public lands by connecting landowners, Firewise Communities and Forest Health Collaboratives (CWSC, NCWFHC)



# Urban Ag and more

- ▶ Work with landowners to promote healthy soils and ag practices :
  - ▶ Composting manure, soil tests to reduce fertilizer runoff, native plantings and irrigation planning to conserve water.
  - ▶ Community Gardens
  - ▶ Container gardening workshops
  
- ▶ Learn more about all these programs  
[www.cascadiacd.org](http://www.cascadiacd.org) or (509) 436 -1601



# Education & Outreach

- ▶ Kids in the Creek
- ▶ Wheat Week and Water on Wheels
- ▶ Salmon Festival
- ▶ After School Program
- ▶ Participation in community events including: Earth Day Fairs, Farmer's Markets, river cleanups
- ▶ Native Plant Sale and Native Planting 101 Workshop
- ▶ Quarterly newsletter sent to all of Chelan County

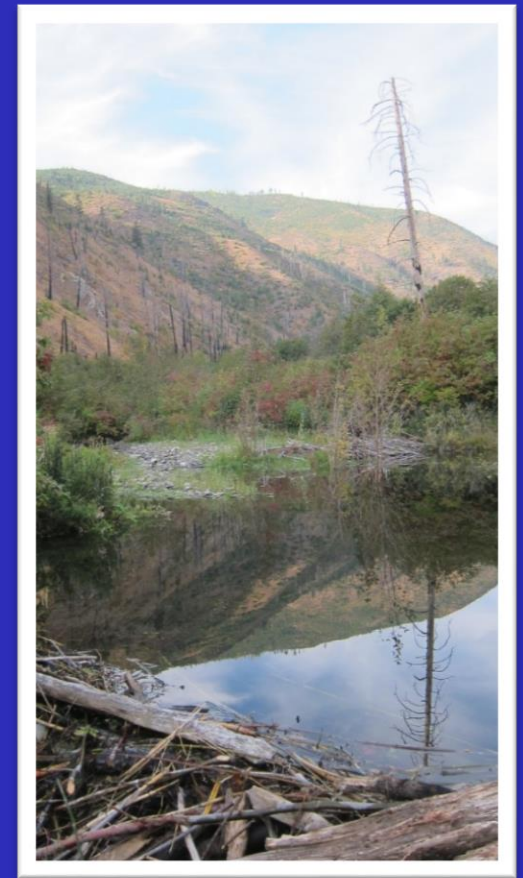




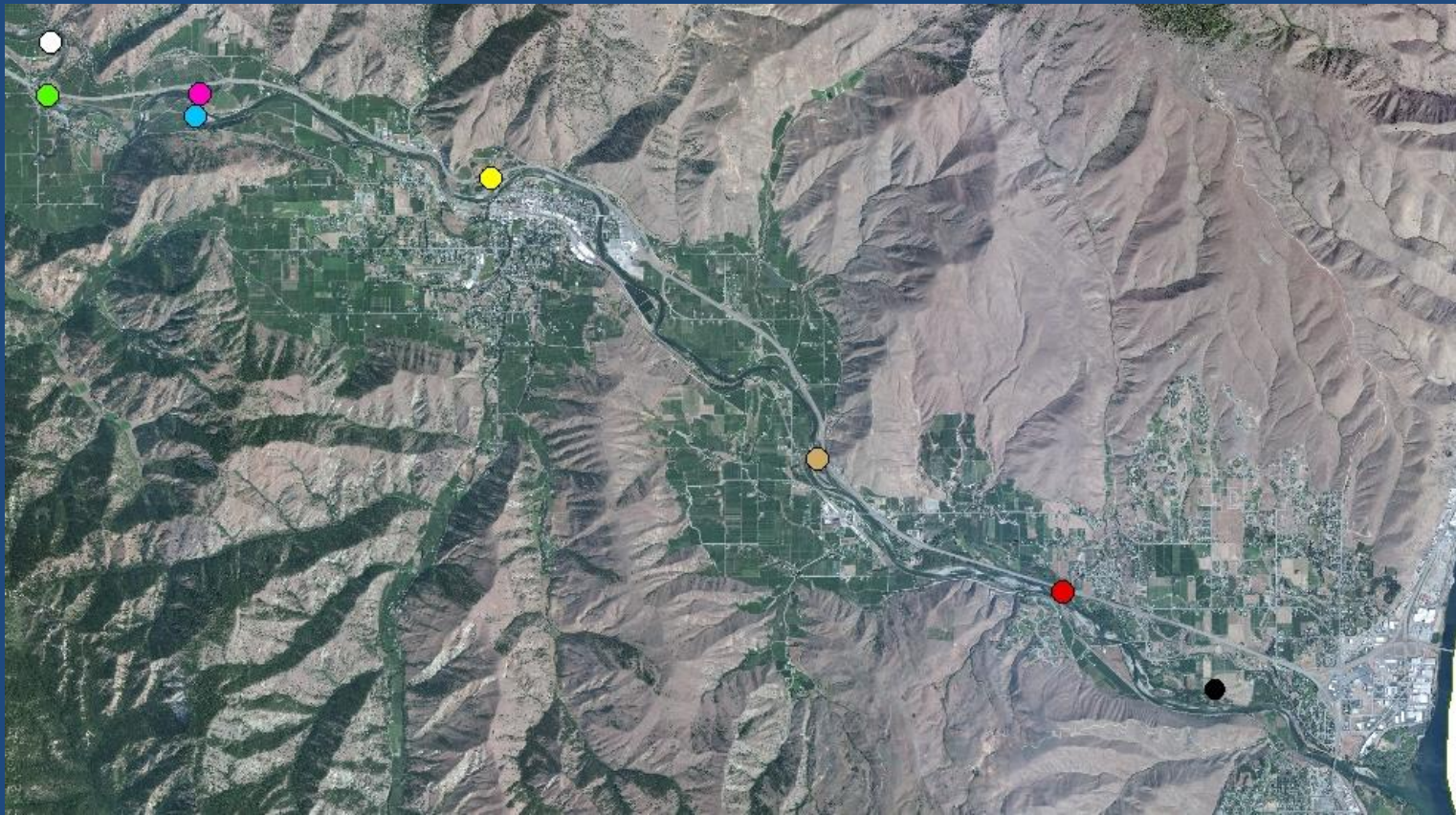
# Wenatchee Beaver Project

**Goal:** Re-establish beavers in Wenatchee Basin tributaries for habitat enhancement, flow augmentation and storage, and amelioration of climate-related impacts

- Loss of beaver among most profound causes of habitat alteration in headwater systems
- Beavers - Create complex stream habitat, recruit wood mitigate floods, reduce incision and promote floodplain interaction & enhance biodiversity
- Project will relocate ‘nuisance’ beavers through public and private land partnership for 10-15 pairs or family groups & conduct monitoring
- Assist landowners with management techniques for human-beaver compatibility.



# Channel Migration Zone (CMZ) Projects in Lower Wenatchee



● CMZ 13, CCNRD, 2008

● CMZ 11, CCNRD, 2008

● Cashmere pond, CCNRD, 2009

● CMZ 6, CCNRD, 2010

● Gagnon Pond, CCNRD, 2007

● Dryden CMZ project, PUD, 2006

● Pioneer side channel, TU, 2014

● Goodfellow CMZ project, YN, 2010



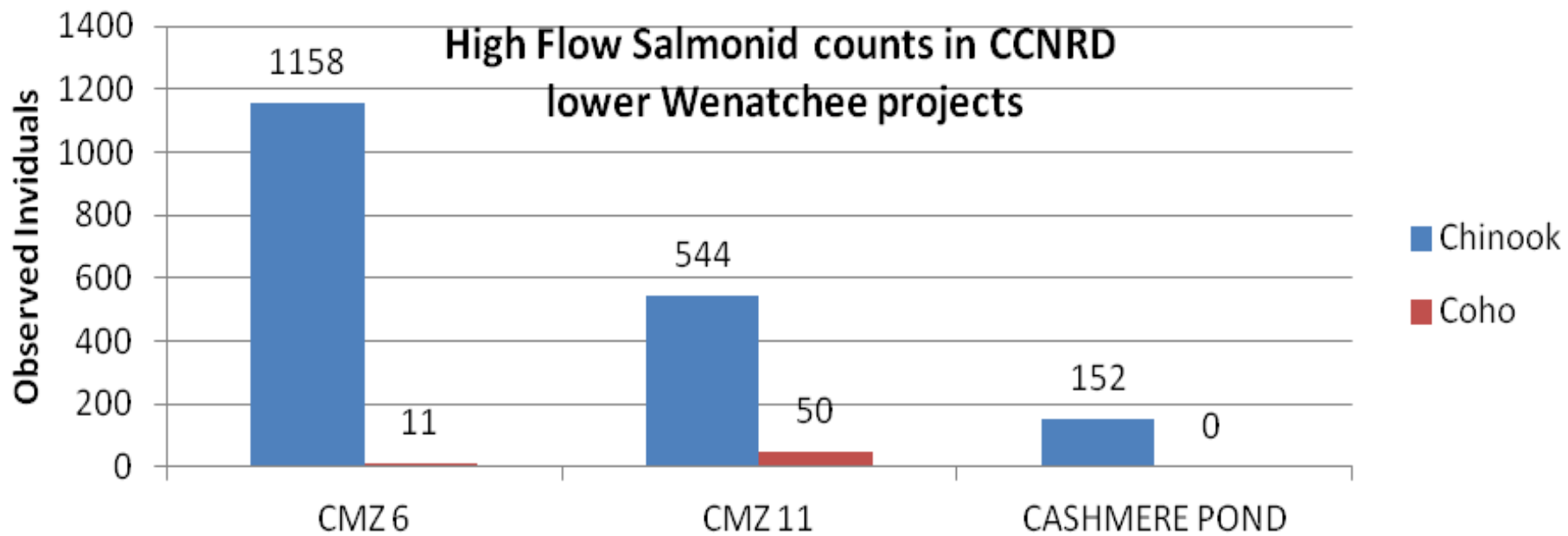
# CMZ Projects : main takeaways

- Snorkel surveys confirm the primary goal, to provide high flow refuge for juvenile salmonids, has been met
- Bonus! CMZ 11 provides thermal refuge in summer and winter.
- River and beaver action have transformed “trapezoidal” channel to complex fish habitat (wood, pools).
- Construction area has mostly revegetated –adaptive implemented in problem areas

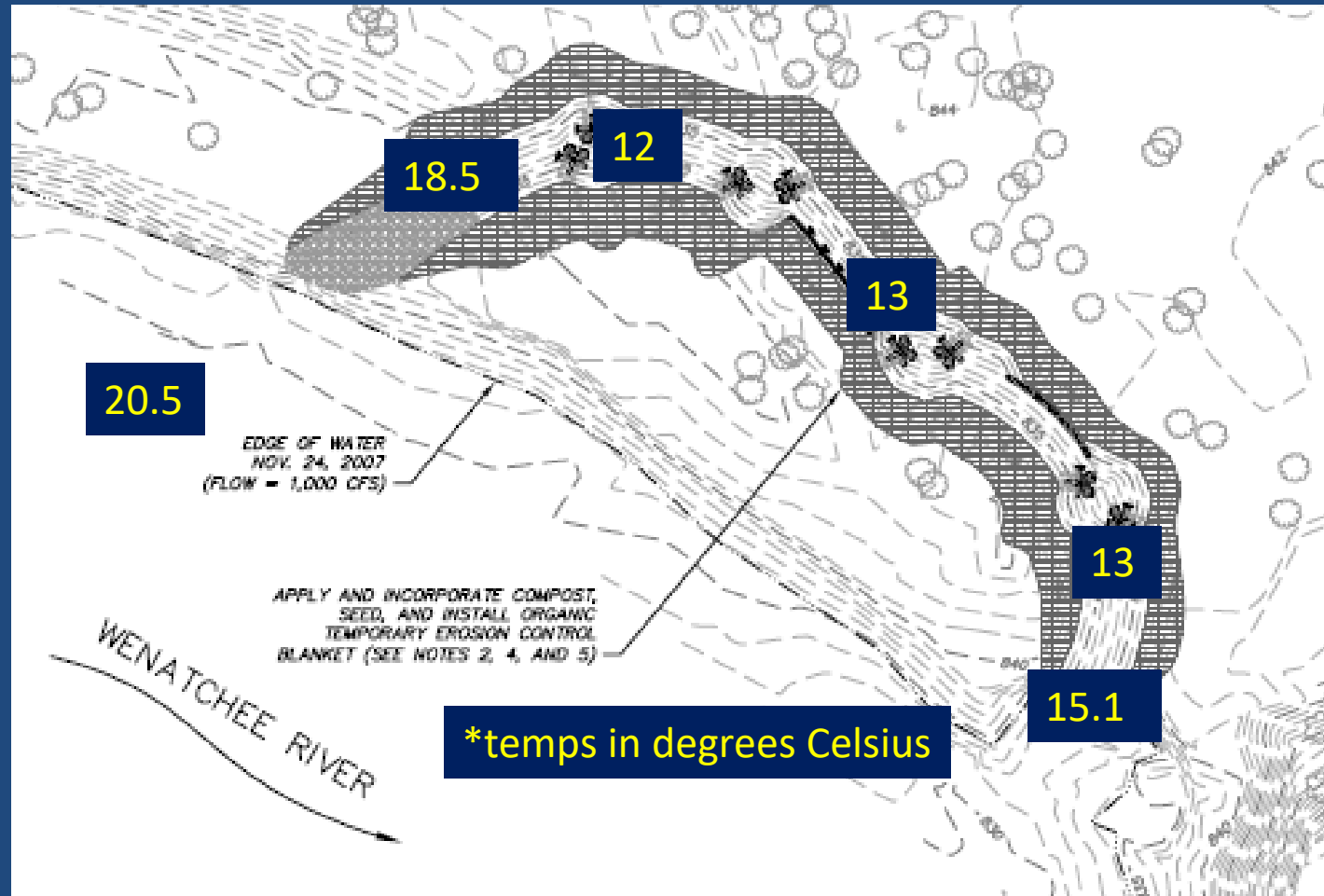
Today! Shot this picture and observed numerous young of the year salmon in channel



June 26<sup>th</sup>, 2014;  
snorkel survey w/ highest flow  
Wenatchee mainstem - 6880 cfs

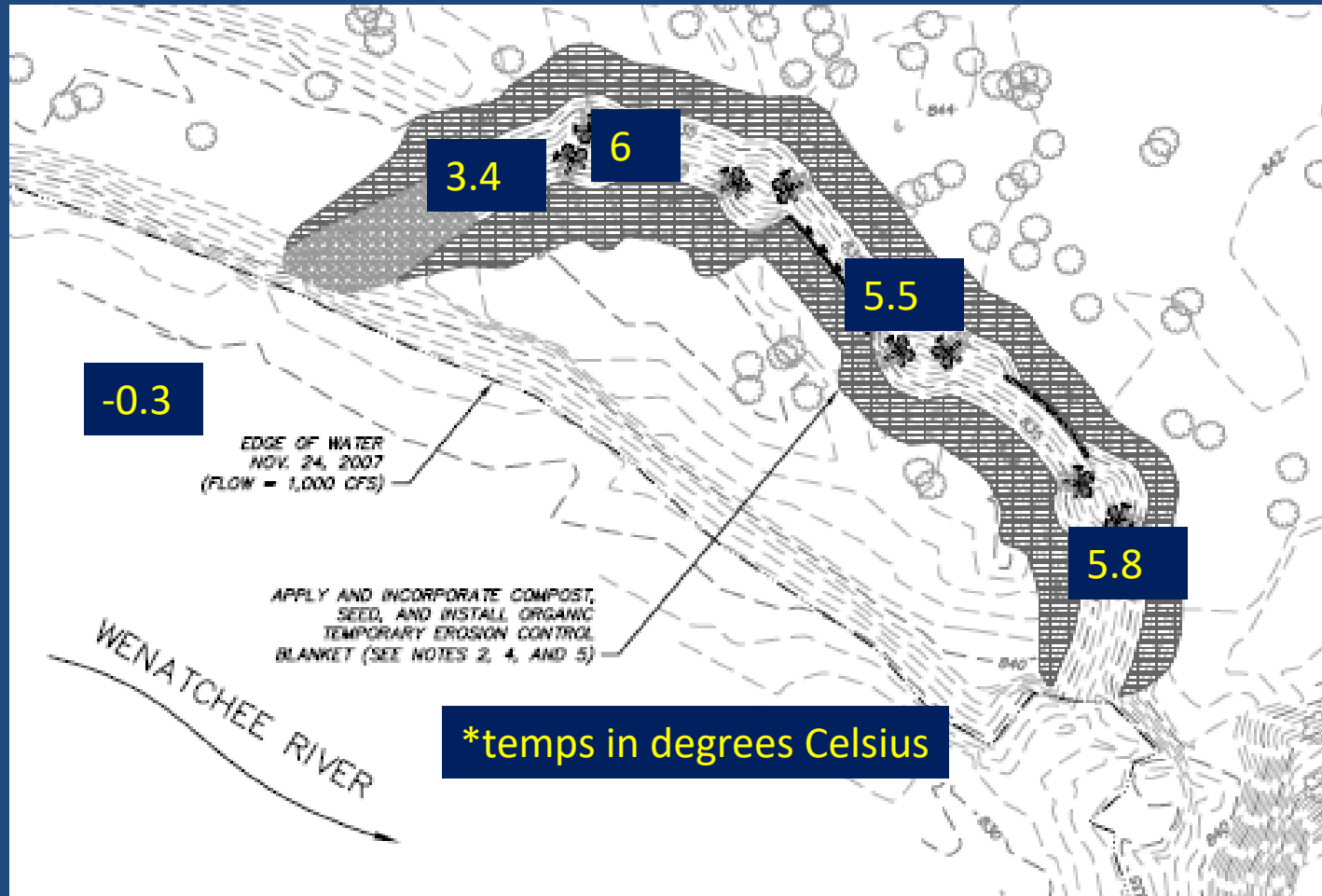


# CMZ 11 temps 7/30/2015 (2015 – warmest stream temps on record)





# CMZ 11 temps 12/31/2014 (winter temp refuge)





# CMZ's continue to re-vegetate and change shape

2008



2017



2010



2017



# Riparian Monitoring resulted in Adaptive Management to ensure healthy riparian corridor

1) Treat noxious weeds - knapweed, tansy, prickly lettuce, cocklebur.

2) Re-plant with natives – willow, cottonwood, snowberry, pine and rose.

Implemented at CMZ 6 and CMZ 11 in Fall 2017

Plans to treat CMZ 12/13 and Cashmere Pond



# Willows installed on banks

CMZ 11



CMZ 6



Pre -plant



Post -plant



# Equipment/wood staging areas : Pre/post weed treatment and planting





# Voluntary Stewardship Program

- Regulatory alternative for agriculture in critical areas
- VSP work group
- Top priority: Riparian protection

# Riparian Prioritization

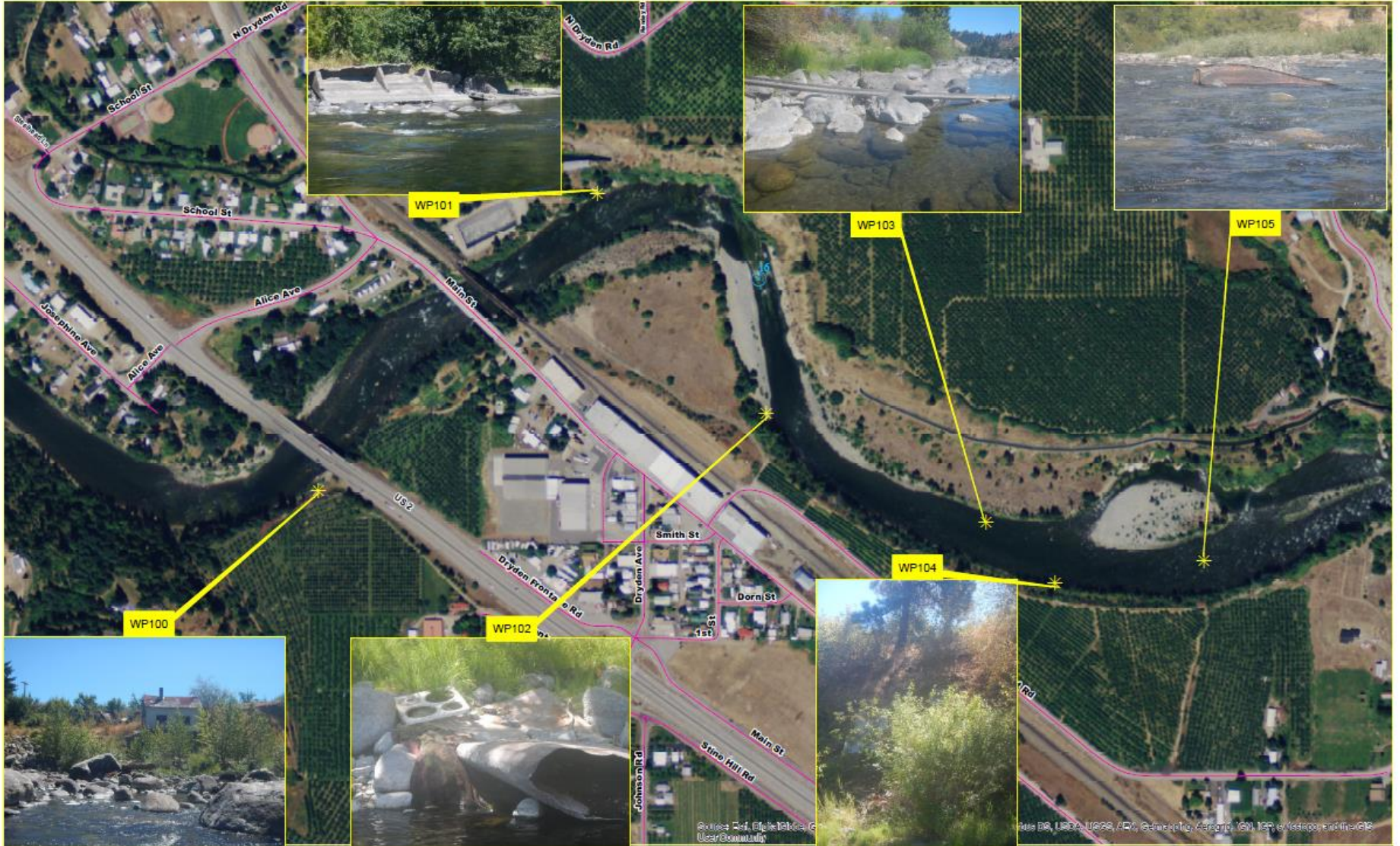
## Wenatchee River and Tributaries

- Document and analyze existing riparian conditions (LiDAR, aerial photos)
- Create maps adding additional data: water temperature, land use, soil type, shade, etc
- Establish priorities and identify riparian restoration actions



# 2015 Wenatchee River Debris Inventory

Wenatchee River Debris Inventory Near Dryden





# River Clean Up - Debris Removal

- Past removal of cars, bridge abutment, metal, etc.
- 2015 oil tank abutment
- WDOE and WDNR Funding

