

Long Tom Watershed Council

“Action through Understanding: Incentivizing Voluntary GSI”



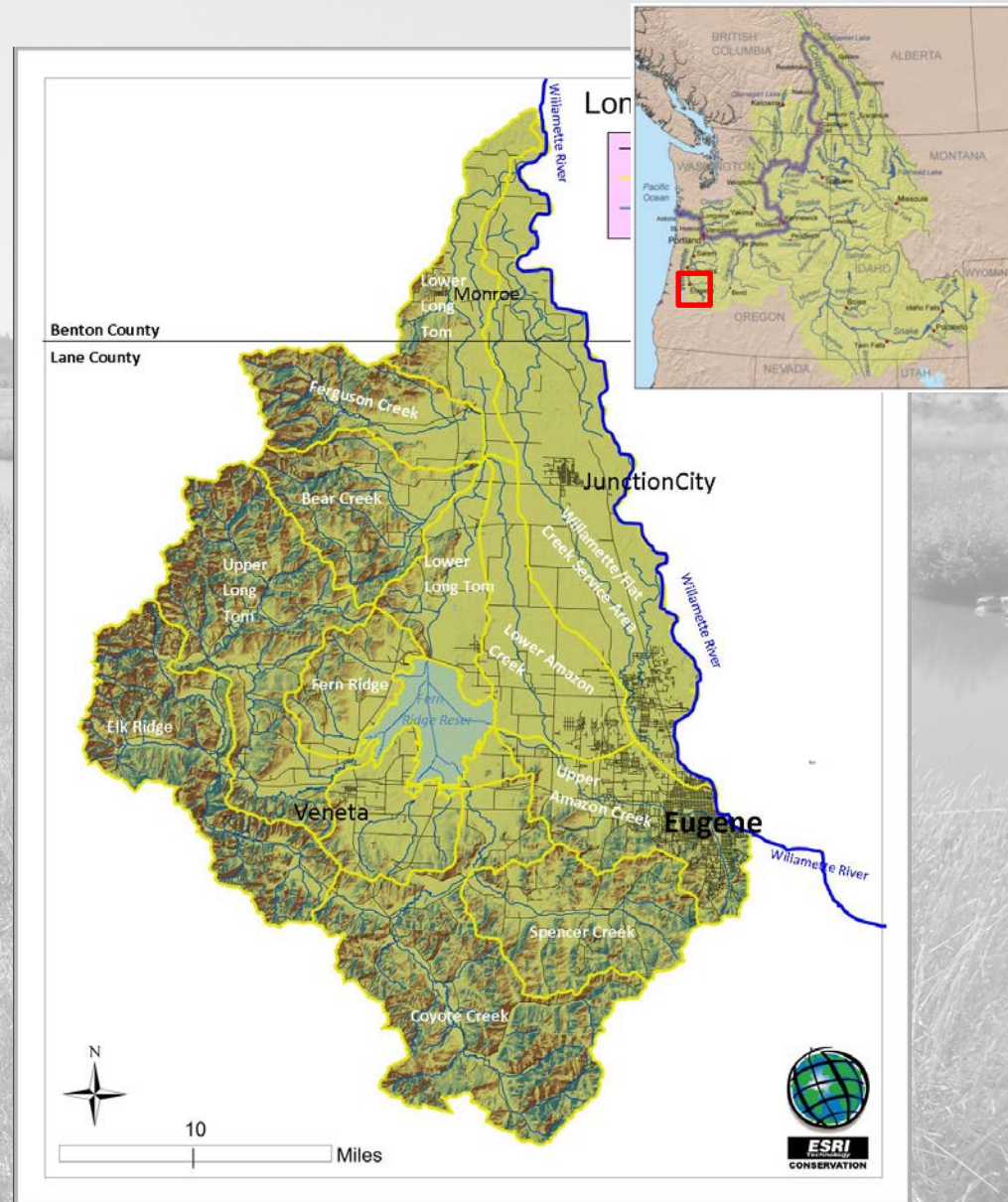
Sarah Whitney, RLA, CESCL

Urban Green Infrastructure Summit, 2018



The Long Tom Watershed

- The Long Tom River enters the Willamette River north of Monroe
- ~440 square miles
- Land use mix
 - forestry (~40%)
 - agriculture (~40%)
 - rural residential (10%)
 - urban (10%)
- Population 150,000+
- Over 90% of the land is privately owned
- Newly including Willamette & greater Metro service areas



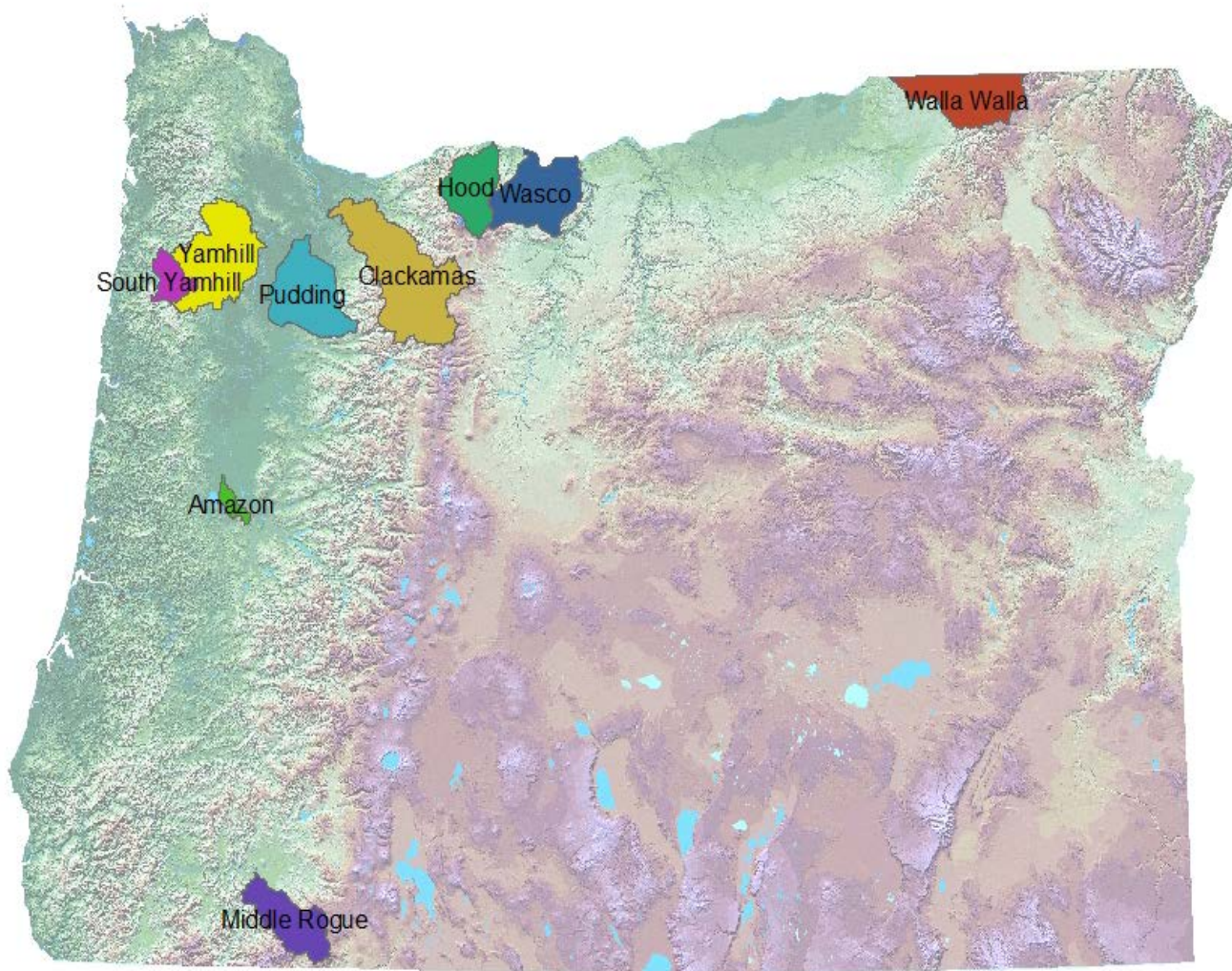
ACTION THROUGH UNDERSTANDING



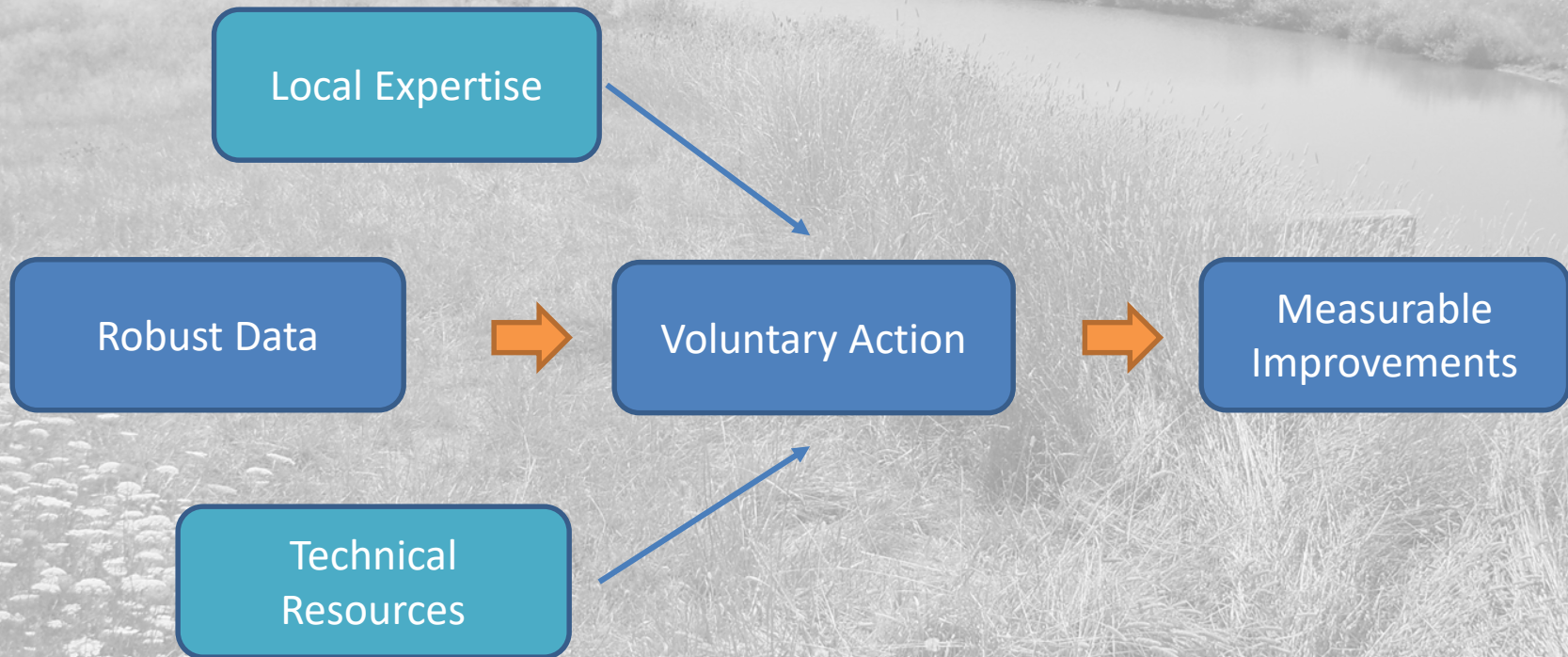
What does the Long Tom Watershed Council Do?

- **Gather and share valuable data** through a variety of scientific surveys and monitoring projects, including on private lands.
- **Educate citizens** about our local land, water, and wildlife resources
- **Work hand-in-hand with local landowners** to improve habitat and streams for fish, wildlife, and people.
- **Take care of local habitats and waterways** through habitat improvement projects
- **Involve talented & enthusiastic citizens as volunteers** in all of the above!
- **Uniqueness** – the constituency includes the full diversity of the community

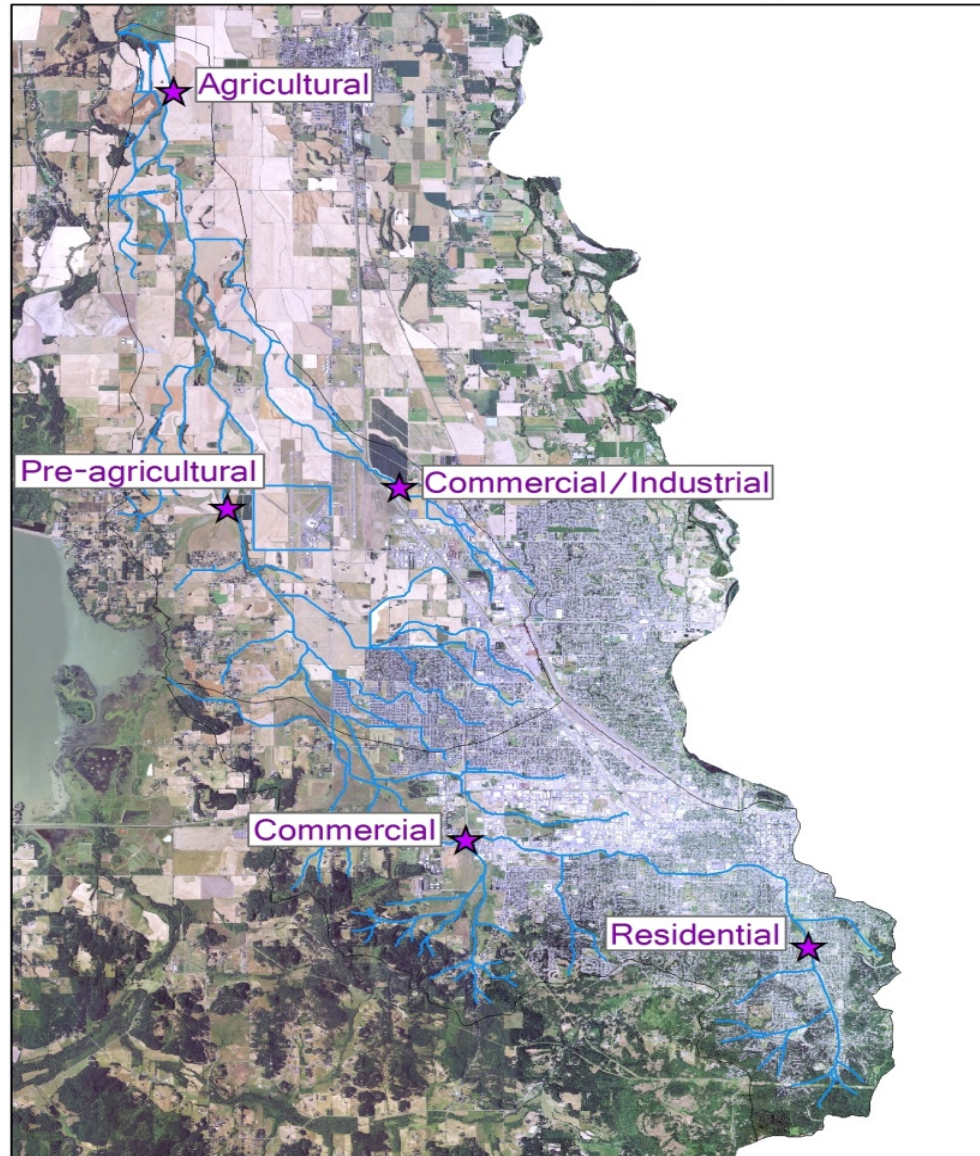
Amazon Creek added to Pesticide Stewardship Partnership program in 2011



Pesticide Stewardship Partnership Program Model



Amazon PSP Sampling Sites



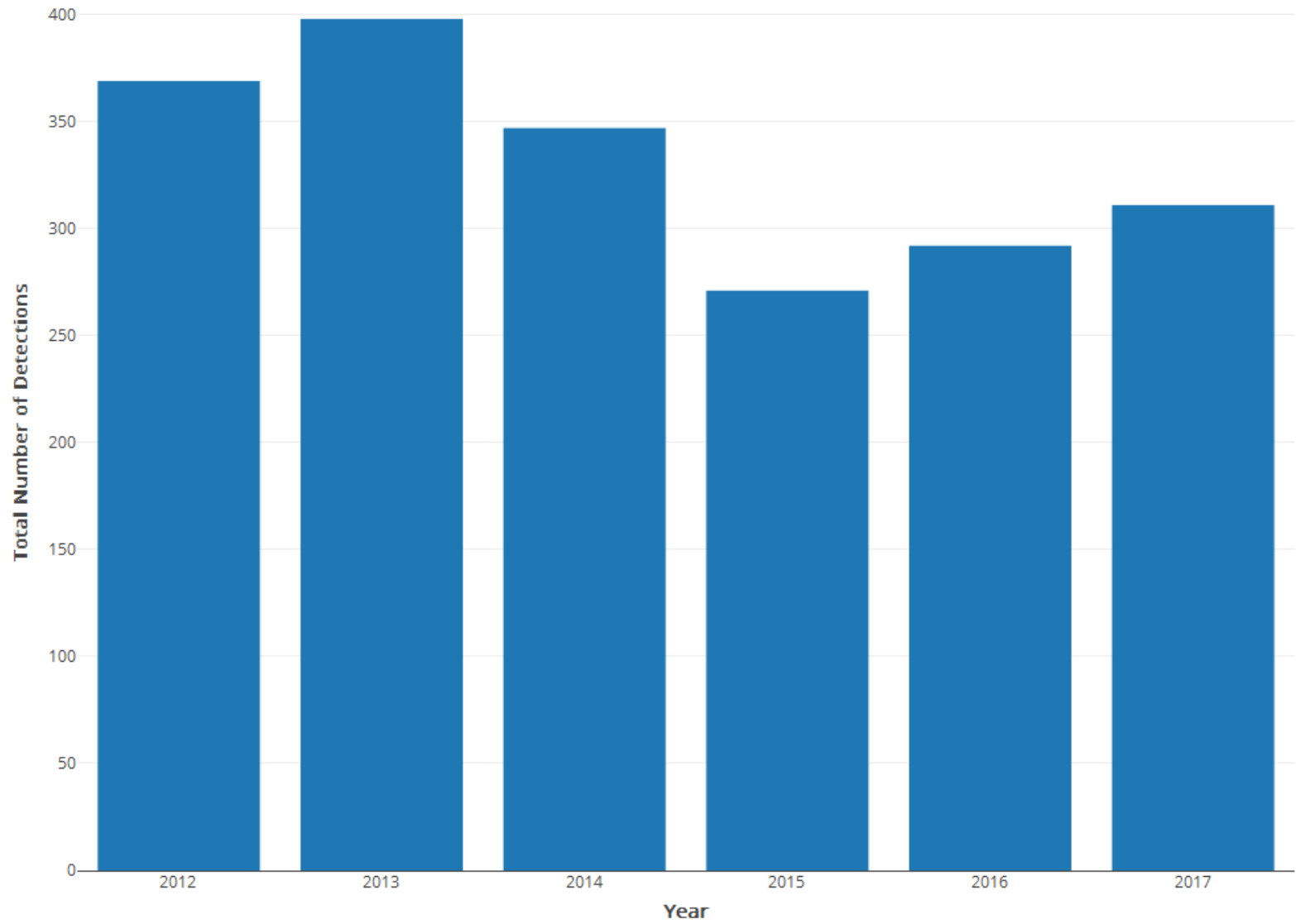
A-1 Channel At Awbrey

Amazon at Bond

A-1 at Awbrey



Total Number of Detections in the Amazon Basin



City of Eugene Monitoring Data

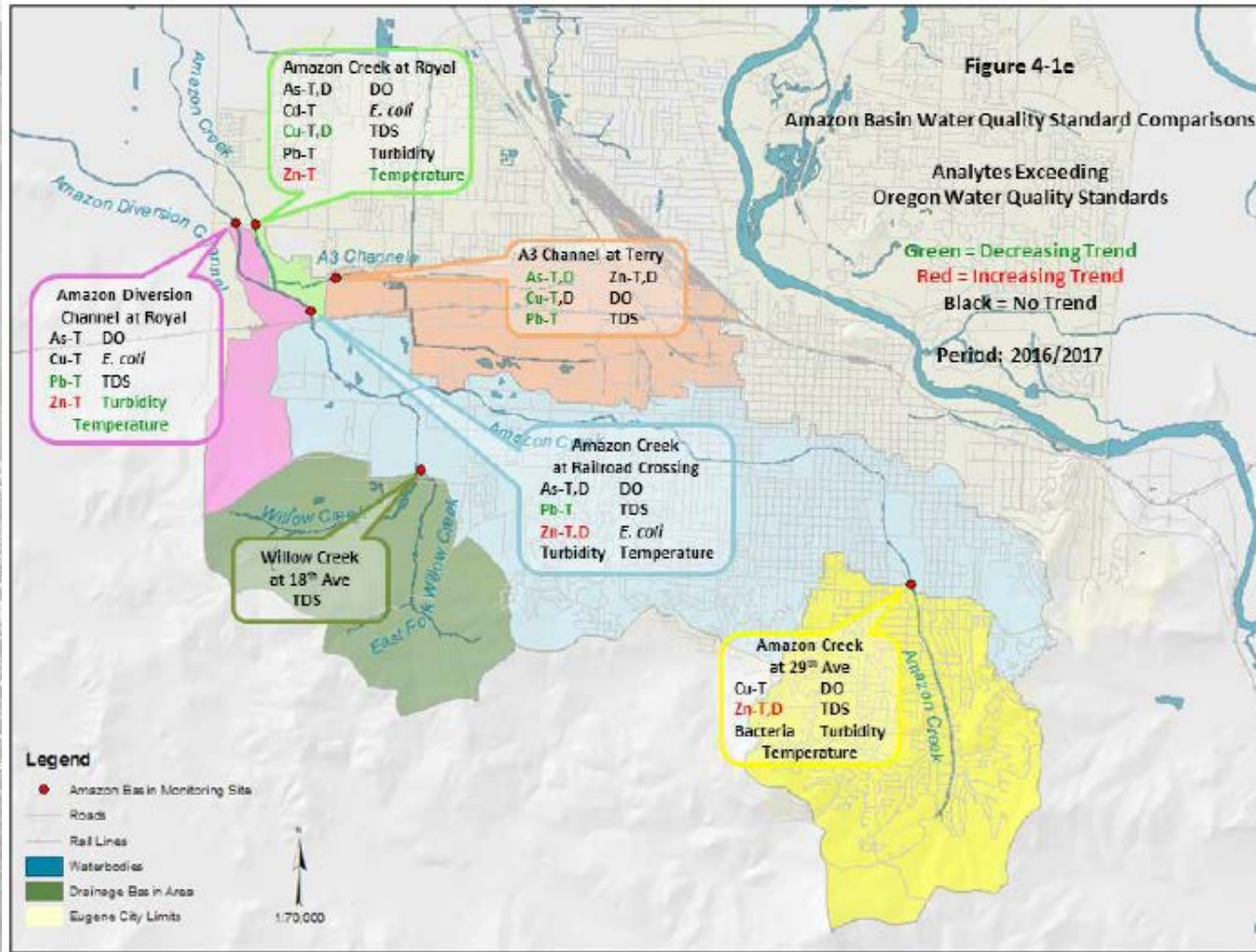


Table 4-1
Analyte Key for Figures 4-1a through 4-1f

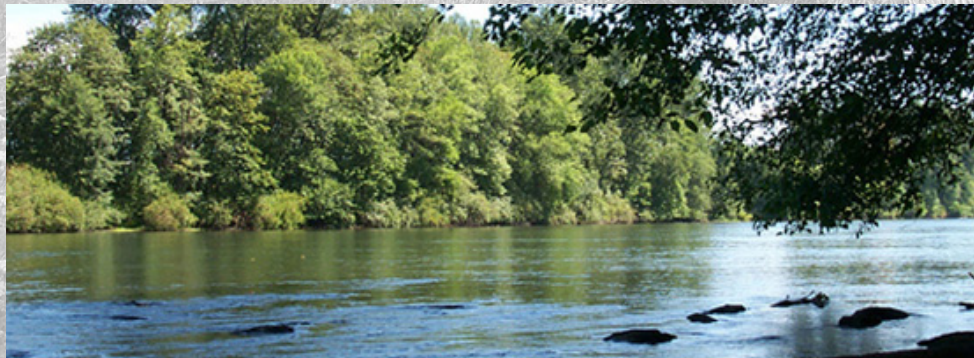
Metals:	
s	Arsenic
Cd	Cadmium
Cr	Chromium
Cu	Copper
Pb	Lead
Hg	Mercury
Mo	Molybdenum
Ni	Nickel
Se	Selenium
Ag	Silver
Zn	Zinc

Non-Metals:	
TKN	Total Kjeldahl Nitrogen
NH ₃	Ammonia – as Nitrogen
NO ₃ +NO ₂	Nitrate+Nitrite – as Nitrogen
P-O	Ortho Phosphorus
P-T	Total Phosphorus
Ca-T	Total Calcium
Mg-T	Total Magnesium
Hardness	Water Hardness
Conductance	Specific Conductance
TDS	Total Dissolved Solids
BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
DO	Dissolved Oxygen
E. coli	Escherichia coli bacteria
Fecal Coliform	Fecal Coliform bacteria
TSS	Total Suspended Solids
Turbidity	Water turbidity
pH	Water Field pH
Temperature	Water Temperature

D = Dissolved fraction
 T = Total sample

City of Eugene

- **Nearly 20 years of sampling data**
- **Trends show city stormwater program is working**
- **More improvement is needed**
 - State standards still exceeded
 - Zinc still trending up
- **Voluntary stormwater retrofits on developed lands can help further improve water quality**



LTWC Urban Waters & Wildlife Program

- 🐟 Amazon Creek Pesticide Stewardship Partnership
- 🐟 Trout Friendly Landscapes
- 🐟 Salmon Safe Certification Local Representative
- 🐟 Employee Stewardship Groups
- 🐟 Latino Pesticide Safety Outreach



- 🐟 Work happens primarily on private lands
- 🐟 All work is strictly voluntary, not required by regulatory action

Trout Friendly Landscapes

👉 Commercial & industrial water quality improvements

👉 Alter landscape & operation practices

- 👉 Increase stormwater management

- 👉 Reduce pesticide, fertilizer & water use

- 👉 Increase tree cover & native plantings

- 👉 Improve soil health

- 👉 Reduce impervious surface and lawn areas

- 👉 Maintain a clean site

- 👉 Work happens primarily on private lands

- 👉 All work is strictly voluntary, not required by regulatory action



City/Council Partnership



- Provide financial match to private investment (\$50,000 pilot project funds)
- Technical and permitting assistance
- Team coordination between Stormwater, Engineering, Erosion, Planning, and Parks
- Evaluate projects for potential stormwater user fee credits
- Review program updates – Stormwater Policy Team

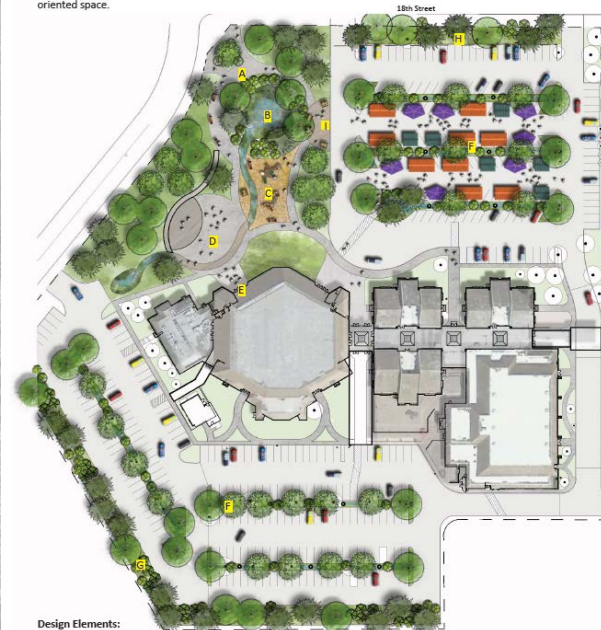
Trout Friendly Landscape Process

- Outreach
- Site Assessment Visit
- Feasibility Study
 - Meet with permitting agency for regulatory framework
 - Opportunities and constraints assessment
 - Phasing recommendations
 - Written & illustrative recommendations
 - Resources
- Present to Business Decision Makers
- Design Development
- Construction Documents
- Contractor Selection Assistance
- Construction Oversight
- Maintenance training and assessment for 5+ years post construction
- Reimbursement
- Marketing



Willamette Christian Center Conceptual Design

The objective is to deliver a multifunctional landscape that integrates public awareness and active management. The result is a unique space that provides ecological functions through treatment habitat creation while also inviting in the community to enjoy educational and recreational opportunities in an oriented space.



Design Elements:

- A:** Pathways for pedestrian access from adjacent neighborhoods with benches
- B:** Swale and rain garden
- C:** Playground with natural elements
- D:** Outdoor amphitheatre
- E:** Cafe Patio
- F:** Newly planted parking lot with stormwater management provides opportunities for alternative uses.
- G:** Hedgerow
- H:** Improved vegetation along 18th street
- I:** Patio connects parking lot to new park-like setting

Installed Voluntary Stormwater Retrofits

21 projects in 5 years

Davis Properties	3 projects
Thermo Fisher	4 projects
Gibson Steel Basins	3 projects
Joe's Garage	2 projects
OSU Extension Service	
Essex General Construction	
Mountain Rose Herbs	3 projects
QSL	2 projects
Seneca Saw Mill	
HIV Alliance	



Projects Actively in Process

- Seneca Saw Mill Phase II
- Rexius
- 2fORM Architecture
- SeQuential Biofuels (18th Street)
- Lane Forest Products
- Ridgeline Montessori
- First Christian Church
- Willamette Christian Center
- New Mountain Rose Herbs Site
- Eugene Friends Meeting House
- Eugene Waldorf School
- 200+ projects on deck



Questions?



Contact:

Sarah Whitney, RLA, CESL

Urban Waters & Wildlife Program Manager

Long Tom Watershed Council

urbanwaters@longtom.org

541-654-8965

ACTION THROUGH UNDERSTANDING

