Oregon's Pesticide Stewardship Program
Water Quality through Collaboration



Columbia Basin Pesticide Stewardship Workshop
July 2, 2014 – Walla Walla, WA

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Oregon Pesticide Stewardship and Water Quality

- **Pesticide Stewardship Partnerships (PSPs)**
  - History, current status and accomplishments
  - Key challenges and priorities
- **Pesticide Stewardship Program Expansion**
  - **New watersheds & refine approaches in existing watersheds**
  - **Pesticide collection & stewardship technical assistance**

Pesticide Stewardship Partnerships (PSPs)

Collaborating at the watershed level

Key Steps in Partnership Projects

Monitor for current use pesticides in surface waters from drift & runoff

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Identify streams with elevated pesticide concentrations or high # of detections

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Collaborate to implement voluntary management practices

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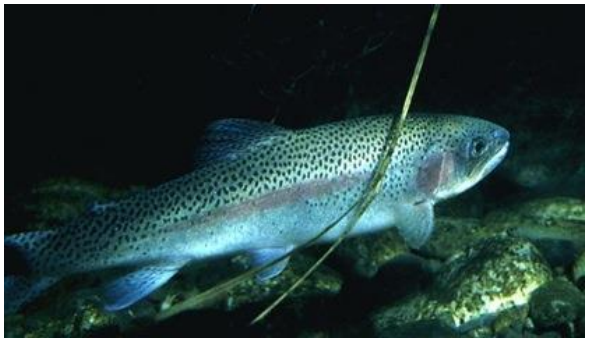
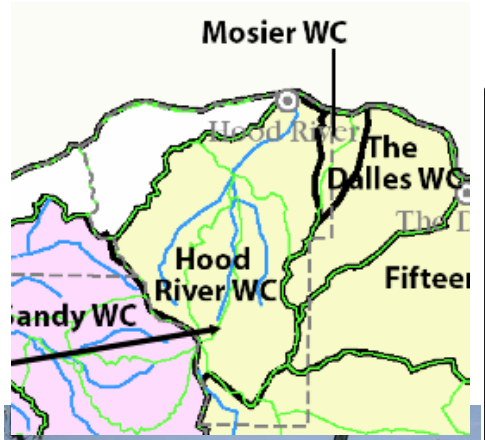
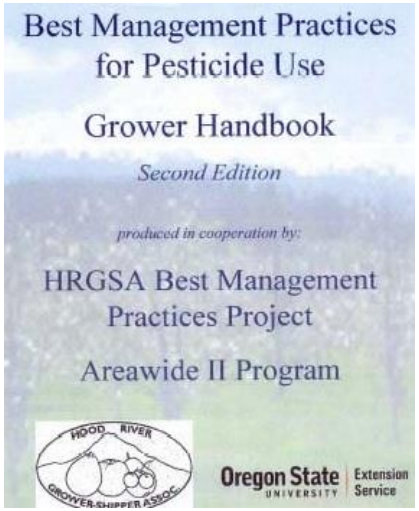
Follow-up monitoring to determine improvements over time



Birth of the Pesticide Stewardship Partnership (PSP)-- Hood River





1999: ***Organophosphate (OP) insecticides detected*** **above WQ Standards for fish**

2000: ***Coordinated Program Developed***

- State Agencies – DEQ monitoring
- Local Stakeholders: Growers and Shippers, SWCD, WSC,, Irrigation Districts & Confederated Tribes of Warm Springs

2002-03: ***Voluntary Best Management Practices (BMPs) Implemented***

- Application Practices, Buffers, etc.
- Outreach/Training
- Technical expertise, resources & pesticide management tools in place

Features & Benefits of the PSP Program

Monitoring Data Creates Awareness and Feedback

- Ability to identify pesticides of possible concern
  - Change the pesticide use/application practices
  - Switch to alternative products or management practices
- Ability to demonstrate where there aren't problems
- Clear environmental outcome measures

Watershed-based / Voluntary / Collaborative

- Avoids burdensome regulatory issues
- Local, most effective solutions (not "one-size-fits-all")
- Multiple partnerships lessens the burden on any one entity

OR Water Quality Pesticide Management and Assessment Program

Oregon Department of Agriculture

DEQ
State of Oregon Department of Environmental Quality

Oregon Health Authority

Oregon Department of Forestry

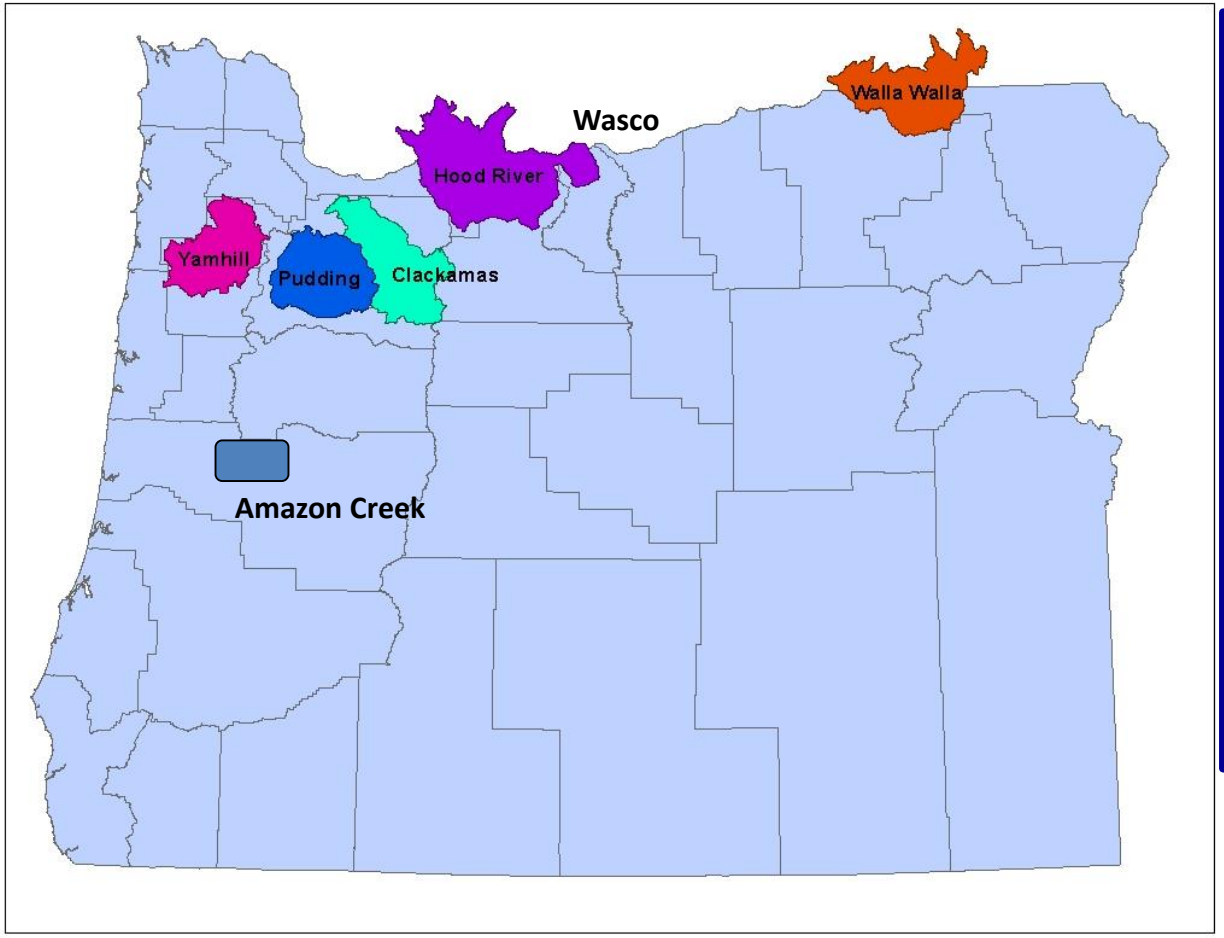
Oregon Watershed Enhancement Board
OWEB

OSU Oregon State University

Pesticide Management Team (2007)	Federal & State Pesticides of Interest
Oregon WQ Pesticide Management Plan	Monitoring Program (PSPs)

- Currently registered pesticides in…
- Surface and groundwater
- Agricultural and non-Agricultural

Oregon Pesticide Stewardship Partnerships
Current Projects in 7 Watersheds

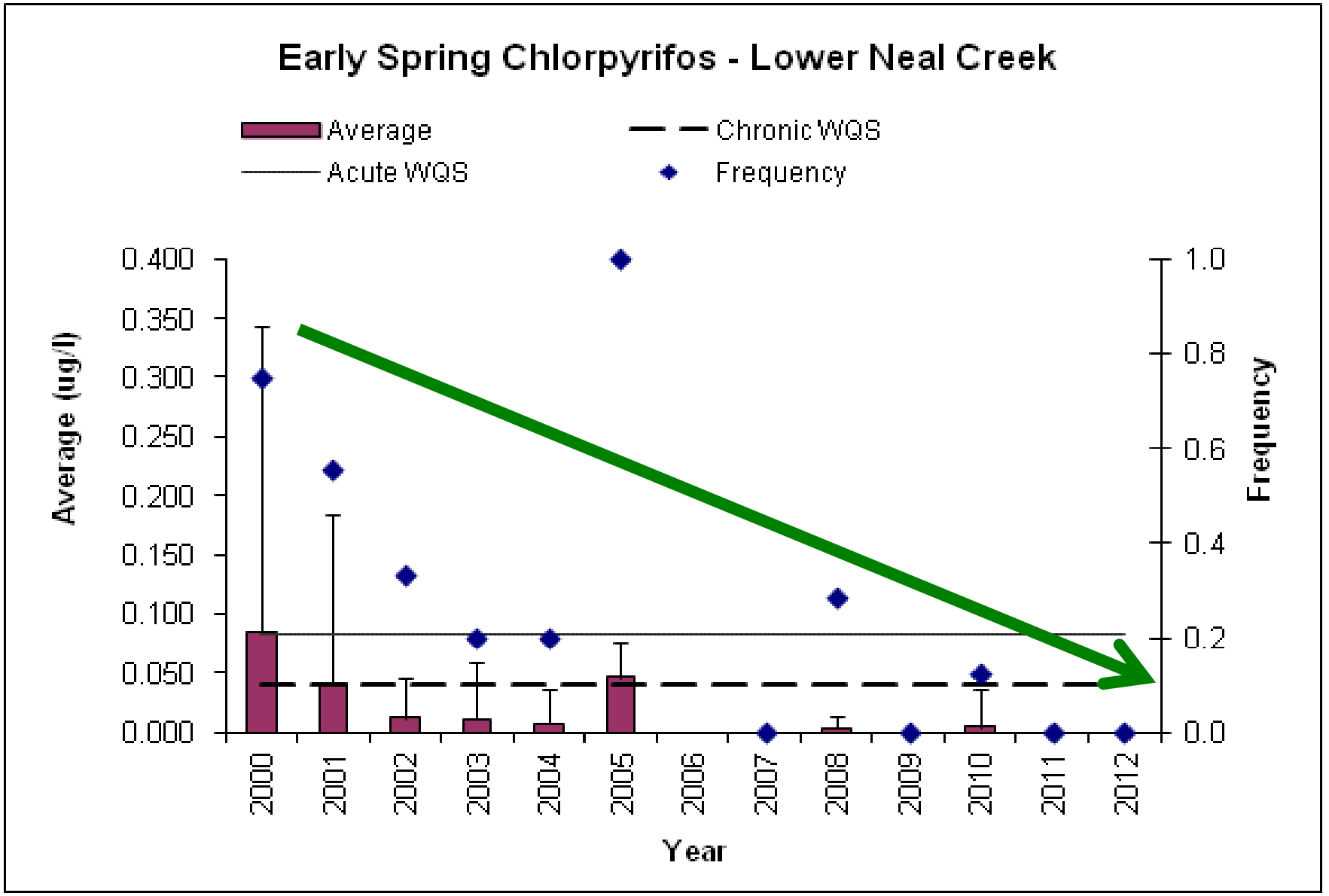


Actions Implemented

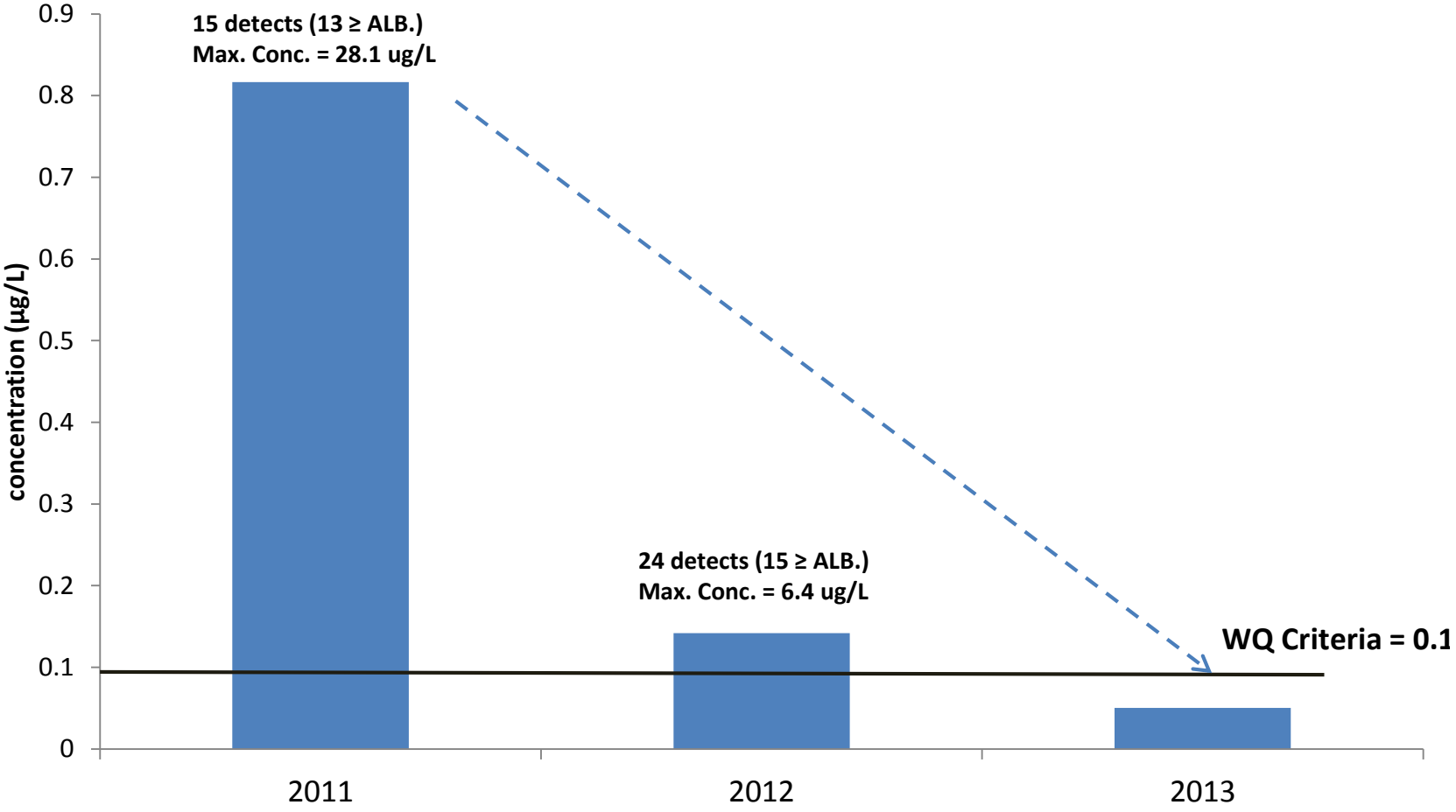
- ✧ Spray drift reduction training
- ✧ Installation of weather stations
- ✧ Alternative control methods
- ✧ Less toxic pesticides
- ✧ IPM training & assistance
- ✧ Buffer strips & minimal spraying near streams

Hood River PSP: What Can Be Achieved?

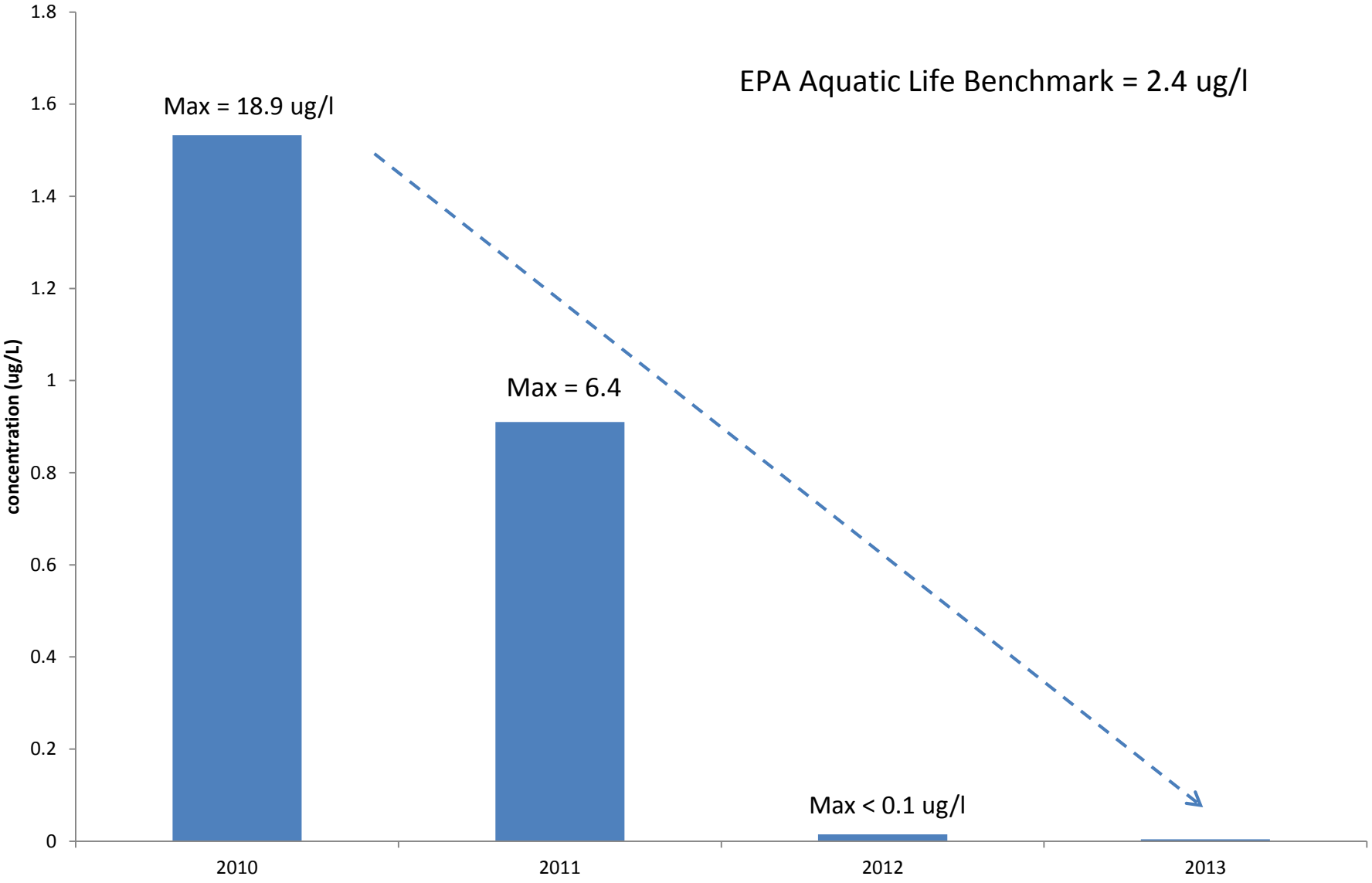
Goal: Reduction in concentrations & frequency of detections over time



Malathion in Wasco Watersheds
2011-2013
Median Concentration of Detections



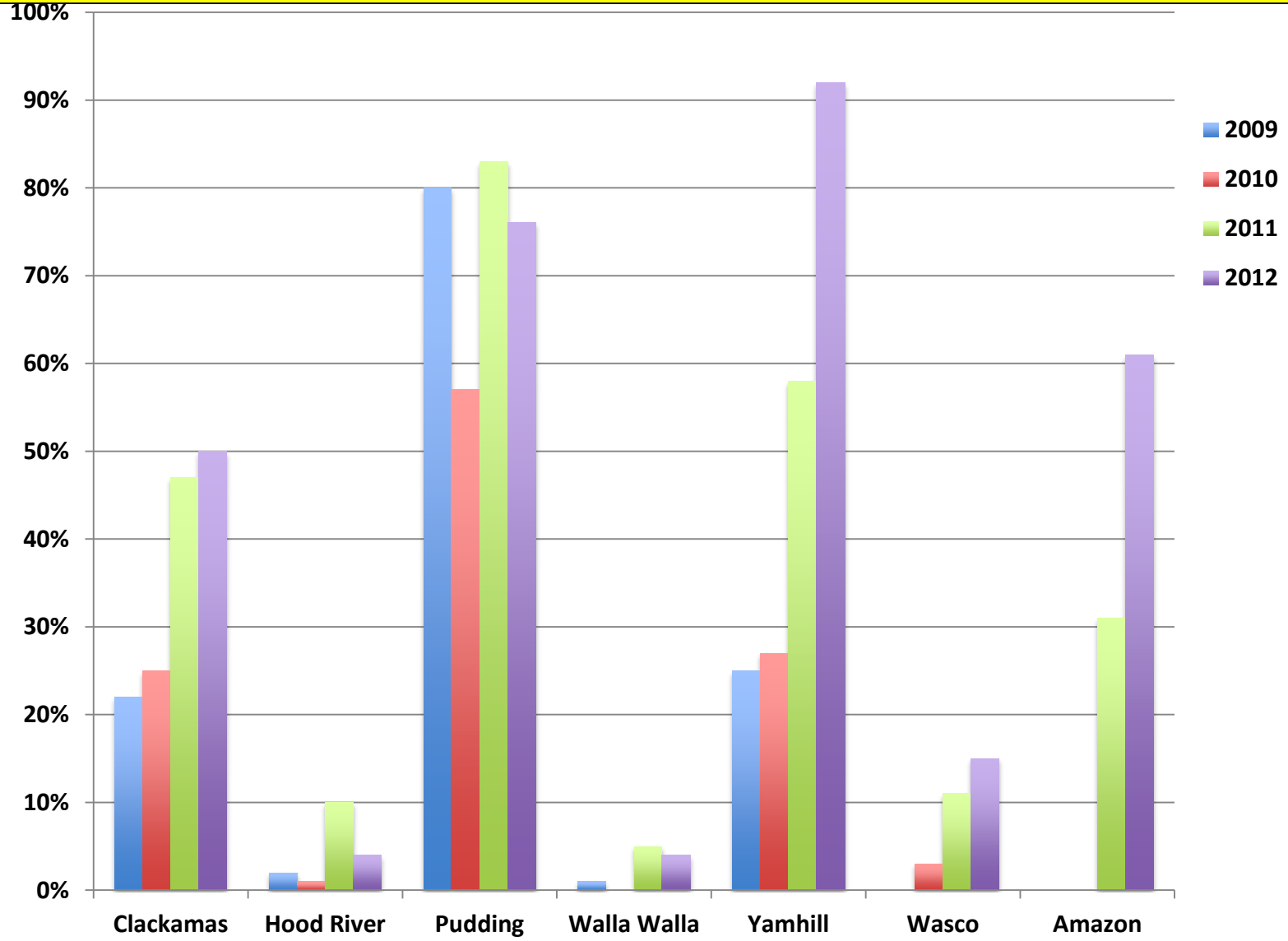
Little Walla Walla River Distributaries (3 sites)
Diuron (Karmex) - Average Concentrations
Spring 2010-2013



PSP Monitoring Status in Western Oregon Watersheds

- 20+ pesticide ingredients often found during one monitoring season in single watershed
- Relatively small number of benchmarks exceeded, but high detection frequency
- Wide array of ag and non-ag operations that use many of the same pesticides

Mixtures: PSP Monitoring 2009-2012
Percent of Samples with ≥ 5 Pesticides



Pesticide-related Water Quality Management: Addressing Agency Resource Needs

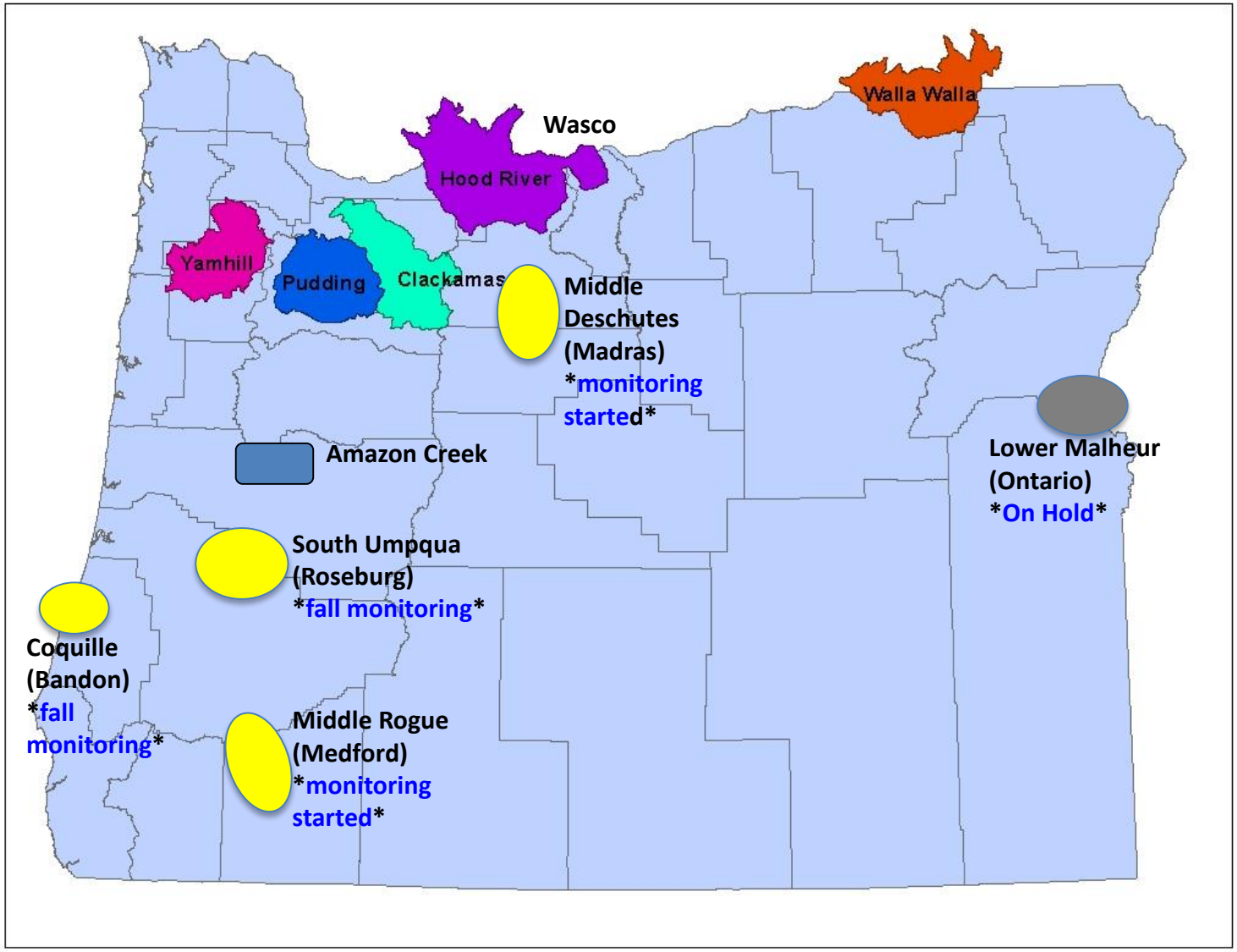
- Consistent long-term funding of monitoring program
- ***2013 Oregon Legislature allocated resources:***

1. ***Add 2 <u>new</u> watersheds to PSP program***
2. ***Refine existing PSP monitoring efforts***
3. ***Conduct pesticide waste collection events during biennium (7 events over two years)***
4. ***Provide technical assistance in existing PSP areas for biennium***

#1 Oregon Pesticide Stewardship Partnerships

Potential New Sub-Basins/Watersheds for 2014-2015

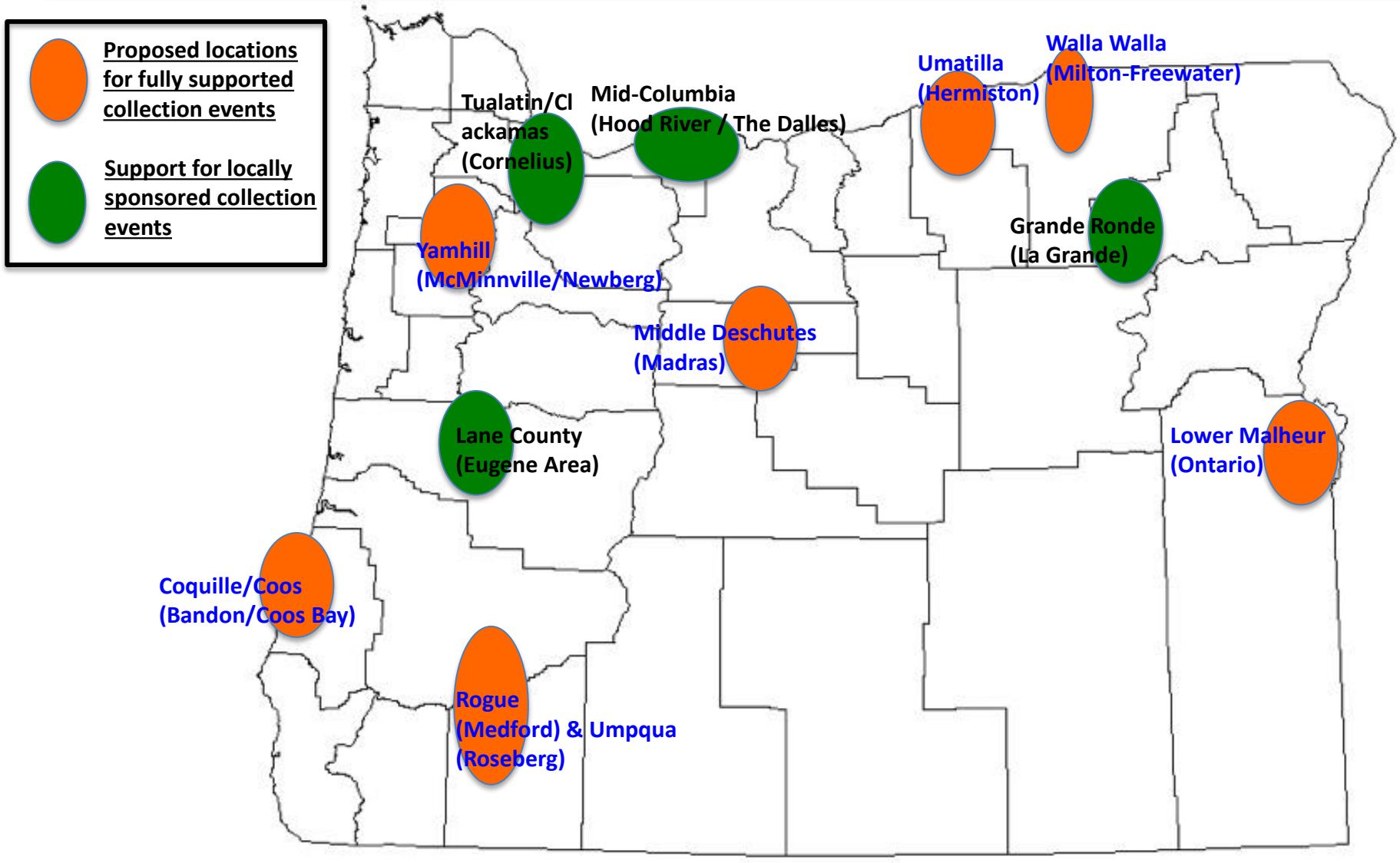
Based on a high level qualitative review/assessment by the WQPMT
Key criteria: pesticide use & 3 major land use categories (ag, urban & forestry) represented



PSP Candidates: 2014 pilot monitoring

Waste Pesticide Disposal: Oregon PSP Program

Proposed Locations for Pesticide Collection in 2014-2015



- **Technical Assistance Project in Yamhill Sub-Basin:**
  Spray Optimization & Drift Reduction for Small Fruit

Tunnel Sprayer Demonstrations and Field Testing

* Proven technology in Vineyards to reduce 99% of drift and reduce chemical usage by 35%
* Purchasing demonstration unit to run preliminary tests in caneberries and blueberries

Pesticide Stewardship

- ✓ Increased Awareness
- ✓ Local, Voluntary and Collaborative

-Thank You -
Questions

State of Oregon
Department of
Environmental
Quality

Oregon
Department
of Agriculture

Oregon
Health
Authority

OWEB

OSU
Oregon State
University