

Measuring Effectiveness of ODA's Agricultural Water Quality Program

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Topics

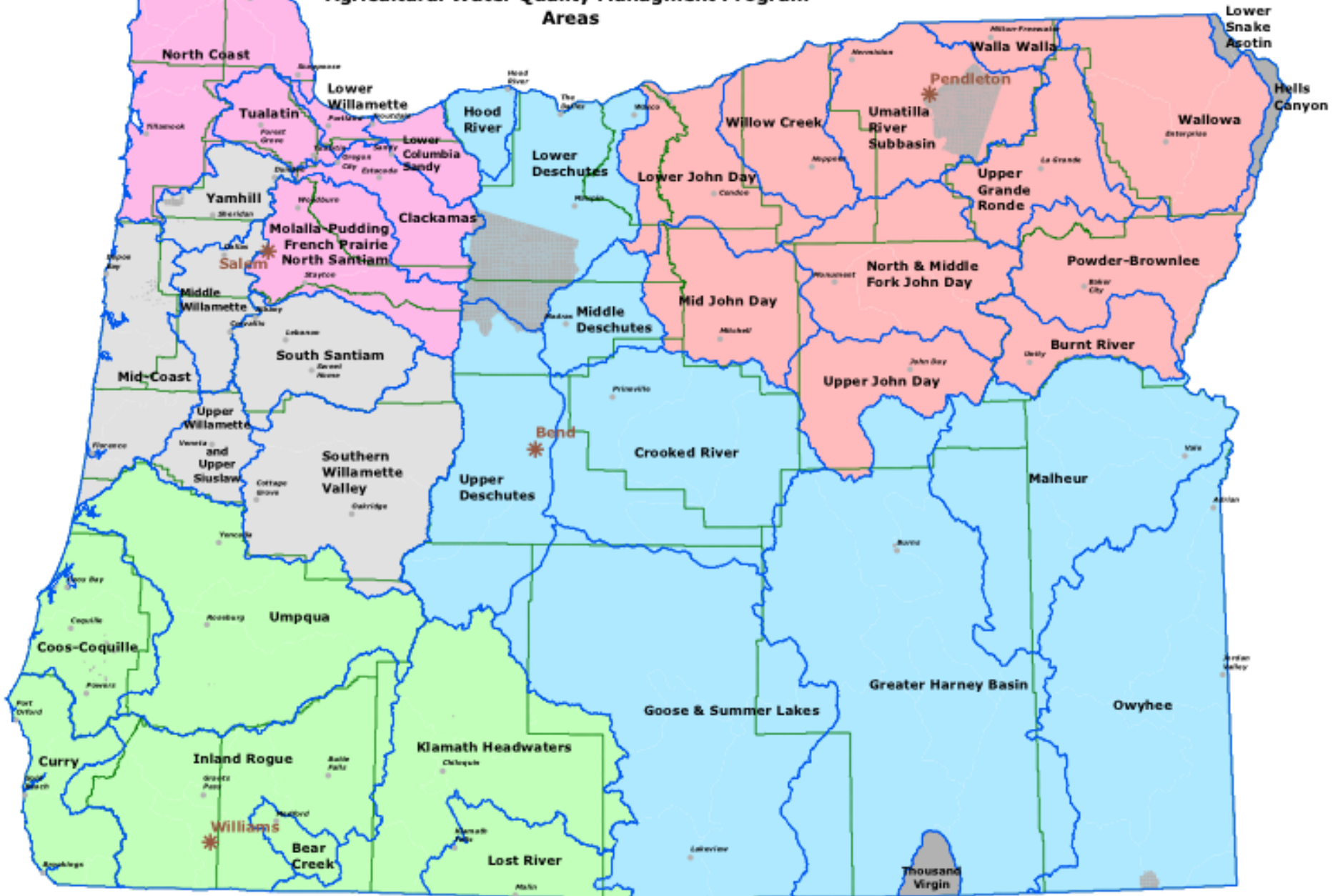
- Background of WQ Program
- SWCD Scope of Work
- Monitoring Program
- Focusing Efforts
- Q&A



Background

- Agricultural Water Quality Mgmt Act
(aka SB 1010) adopted in 1993
- ODA responsible for and jurisdiction over ag practices and water pollution associated with farming activities
- 38 Mgmt Areas identified throughout OR
- 38 Area Plans/Rules

Oregon Department of Agriculture Agricultural Water Quality Management Program Areas



- County Boundary
- North Coast Region - Salem
- Southwest Region - Eugene
- Northeast Region - Pendleton
- Ag WQMA Plans
- Mid Coast & S. Willamette Region - Salem
- Central & South Eastern Region - Bend
- Exempt Areas

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What's the difference?

Area Plans

- Describe a program to achieve the **water quality goals and standards necessary to protect designated beneficial uses** related to water quality, as required by state and federal law.

Area Rules

- **Enforceable** aspect of an Area Plan.
- Must be sufficient to assure that landowners in compliance with the Area Rules will **prevent and control water pollution from agricultural activities and soil erosion.**

The Basics

- Biennial reviews of Area Plans and Rules with Local Advisory Committees (LAC)
 - Assess progress
- Consult DEQ during bi-review process
- Work with Local Management Agencies (LMAs) to implement Area Plans
 - SWCD Scope of Work (SOW) tasks

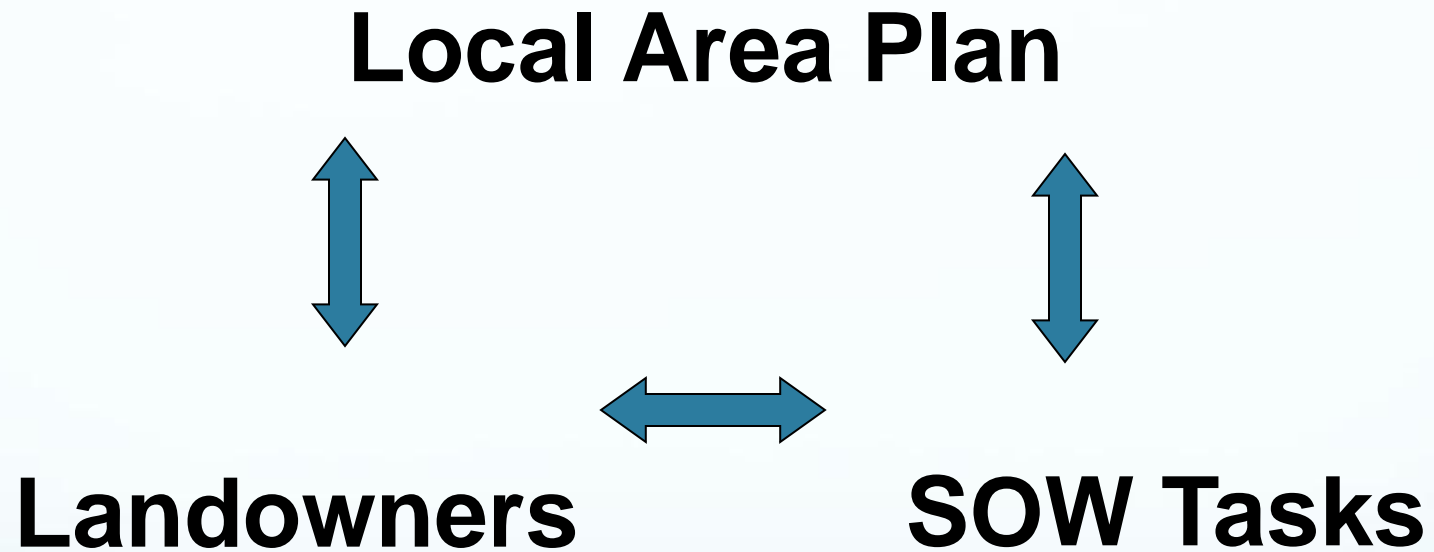
Local Management Agencies (LMAs)

It is the intention of the Legislative Assembly that water quality plans:

- involve **SWCDs as LMAs**
- with the **timely and effective implementation** of these plans

ORS 568.909

Area Plan Implementation



Typical Task Categories



ODA-SWCD Monitoring

- Many SWCDs have monitoring tasks
 - Map conditions
 - Develop monitoring plans
 - Conduct water quality monitoring
- ODA monitoring staff and specialists
 - Work with SWCDs
 - Review area maps
 - Provide technical support to SWCDs

Key Question

- Are the efforts of ODA and our partners effective in leading to agricultural land conditions that protect water quality?



Monitoring Water Quality

- Statewide ambient sampling
 - ODA received funding in 2011 Legislative session
 - 19 new sites complement existing DEQ network
 - Currently we have funding for 2011-2013
- Local projects with SWCDs and WCs
 - Validate land condition-water quality relationship
 - Track WQ improvements from mgmt changes
 - Assessments determine where to focus efforts

Monitoring Land Conditions

- Tracking changes in streamside areas through aerial photography
 - Photograph randomly selected stream segments along agricultural lands
 - Assign code to streamside vegetation
 - Assign a score to streamside vegetation condition
 - Can track changes in the score over time



Clackamas	2004	2009	Difference (2009-2004)
Clear Creek	63.38	62.00	-1.38
Coffee Lake Creek	44.81	43.23	-1.58
Currin Creek	58.05	55.59	-2.46
NF Deep Creek	52.58	49.59	-2.99
Parrot Creek	66.57	65.41	-1.16

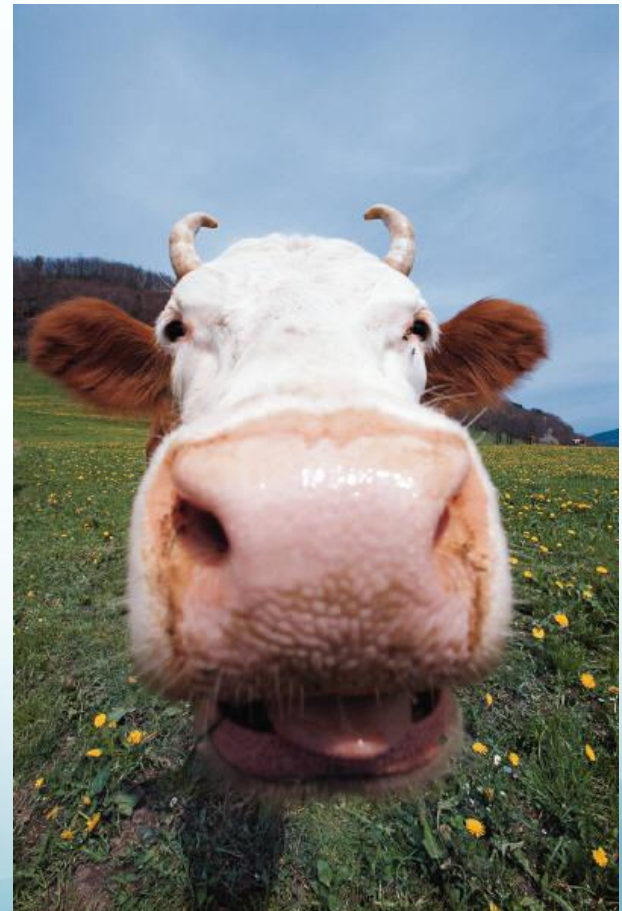
Differences of less than 1.5 are not considered significant.

Land Condition Focus

- Program is focused on monitoring land conditions:
 - Landowners have more control
 - We can provide clearer expectations to landowners
 - A variety of factors affect WQ
 - WQ (especially stream temp) can take a very long time to respond to certain land condition changes – we want to be able to report progress before then

Why Focus Efforts?

- Is the AgWQ Program effective?
- Measure progress
- Best use of limited



How do we get there?

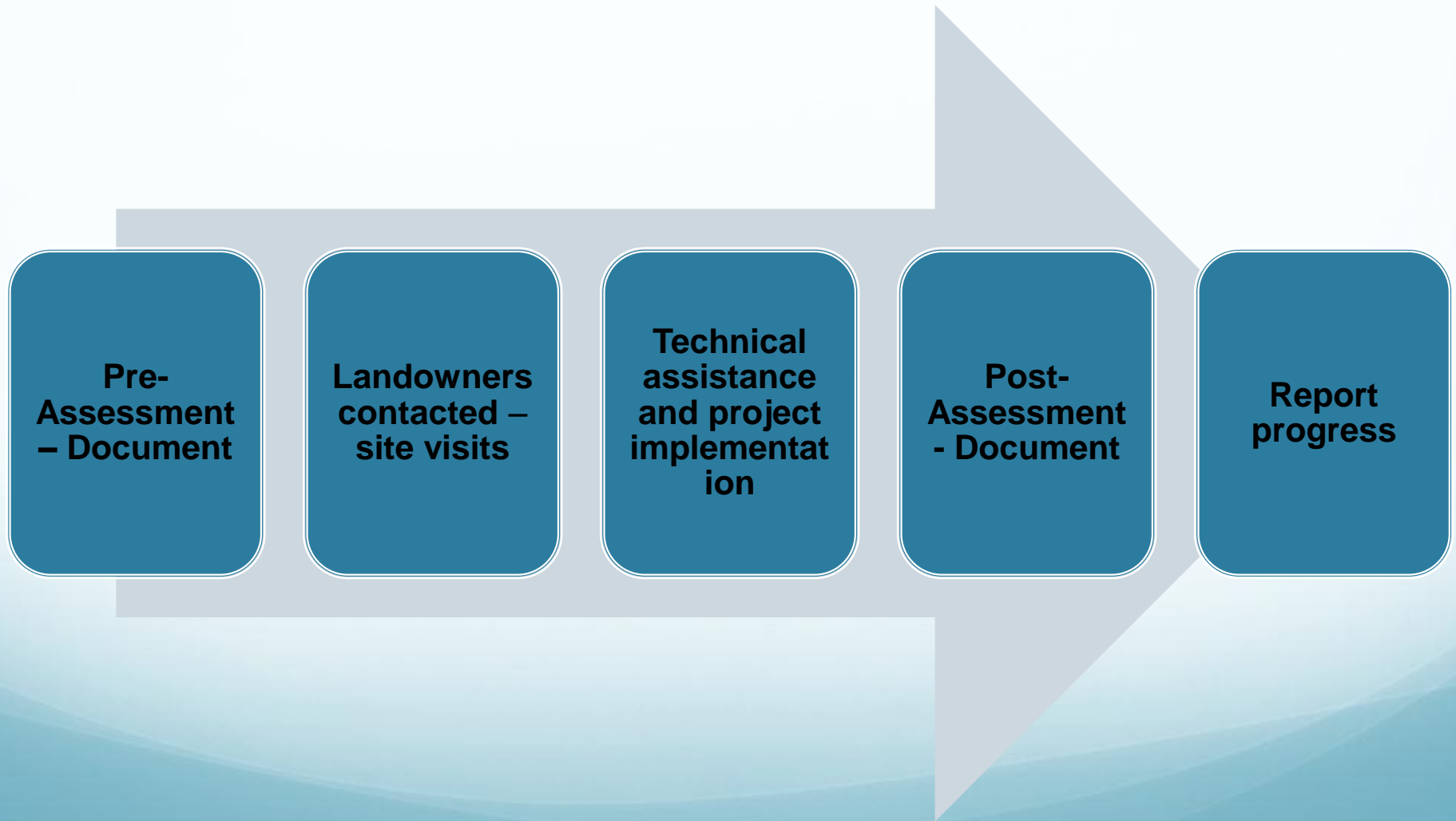
- Identify WQ issues in a small watershed
- Identify measures to WQ goals
- Identify milestones & timelines



Measuring Progress

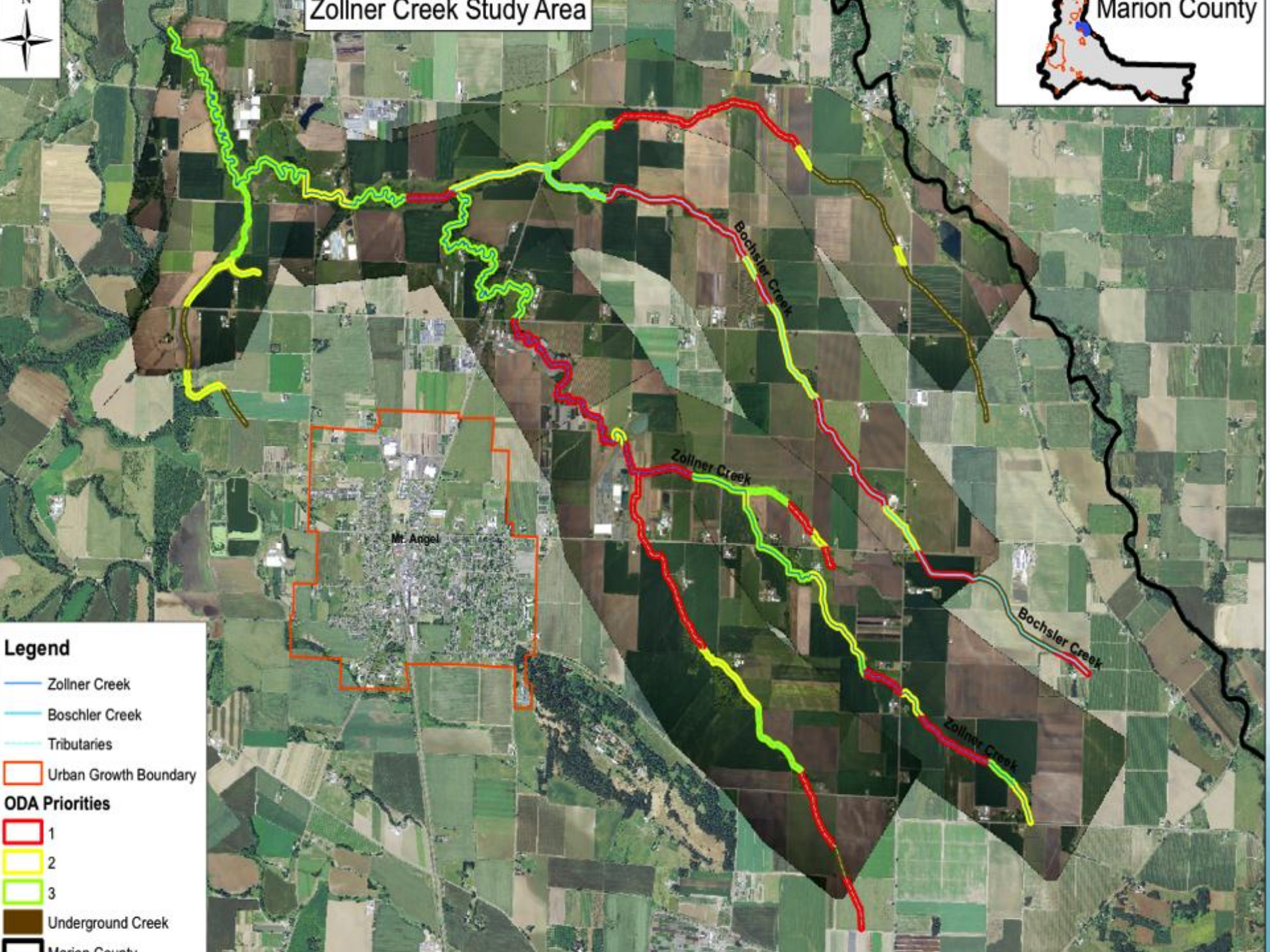
- Differentiate between “implementation” and “progress”
 - Implementation = work being done on the ground
 - Progress = % improvement
 - Landscape condition
 - Water quality
- How do we show overall effectiveness?
 - Implementation + Progress

Landscape Condition (riparian vegetation example)



Zollner Creek Study Area

Marion County



Legend

- Zollner Creek
- Boschler Creek
- Tributaries
- Urban Growth Boundary

ODA Priorities

- 1
- 2
- 3
- Underground Creek
- Marion County

Assessment Example

Landowners	Ft of stream	% of priority area
Red (Level 1)	14,256	28%
Yellow (Level 2)	7,920	16%
Green Priority (Level 3)	27,984	56%

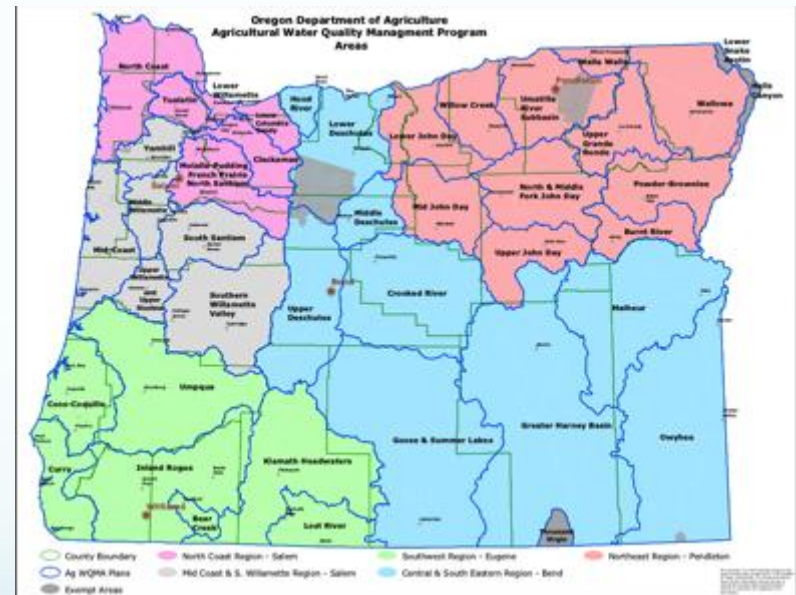
Goal:

All areas progressing toward site capable vegetation in riparian areas adjacent to ag land by June 2014

Examples

- Currently WQ Program has 9 pilot projects for priority areas throughout the state

- Temperature
- Bacteria/Nutrients
- Sediment/Erosion



***Riparian vegetation as a surrogate addresses multiple parameters of concern**

Pilot Projects

Clackamas

Curry

Inland Rogue

Lower John Day

**Middle
Willamette**

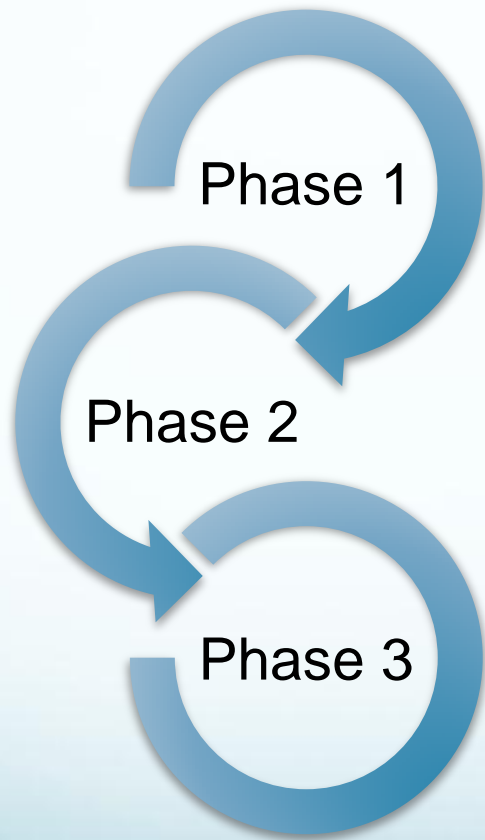
Molalla-Pudding

Owyhee

**Southern
Willamette**

Umpqua

Statewide timeline goals



2011 – 9 areas identified pre- and post-assessment completed by 2013

2012 – 10 more areas identified, pre- and post-assessment by 2014

2013 – Remaining 19 areas identified, pre-and post-assessment by 2015

Questions?

