

Information Item 3: Siskiyou Streamside Protections Review Progress Report

TMDL Development & Temperature TMDLs in the Rogue Basin

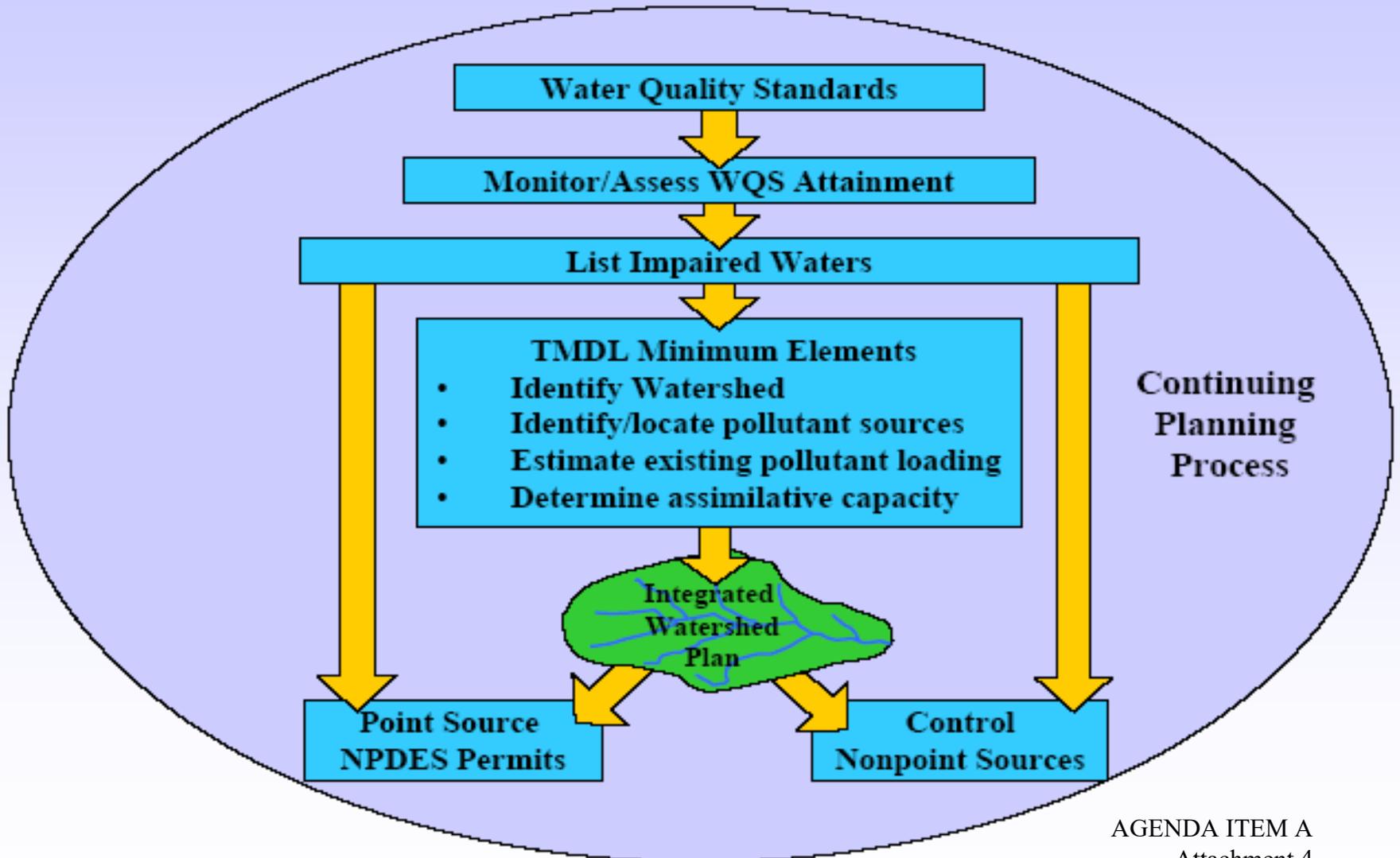
Board of Forestry
Public Meeting
January 9, 2019

Gene Foster
Oregon Department of Environmental Quality

Presentation Overview

- Total Maximum Daily Load and Water Quality Management Plan Development
- TMDL Implementation
- Rogue Basin TMDLs
- Siskiyou Georegion Water Quality Status & Trend

Clean Water Act Framework



TMDL and Adaptive Management Process



TMDL & WQMP Development

Implementation Plan Development

Adaptive Management Process:

Implement - Monitor - Share Information - Learn - Improve

TMDL Development Process

- Identify water quality concerns
- Determine loading capacity and excess load
- Identify pollution sources and conditions contributing to water quality concerns
 - Point sources
 - Nonpoint sources
- Link sources and conditions to water body
- Allocate pollutant loads that when implemented will result in water quality standard attainment

$$\text{TMDL} = \text{WLA}_{ps} + \text{LA}_{nps} + \text{LA}_{bg} + \text{MOS} + \text{RC}$$

Temperature TMDLs

Current Conditions
303(d) list

Source
Identification

TMDL and Load
Reductions

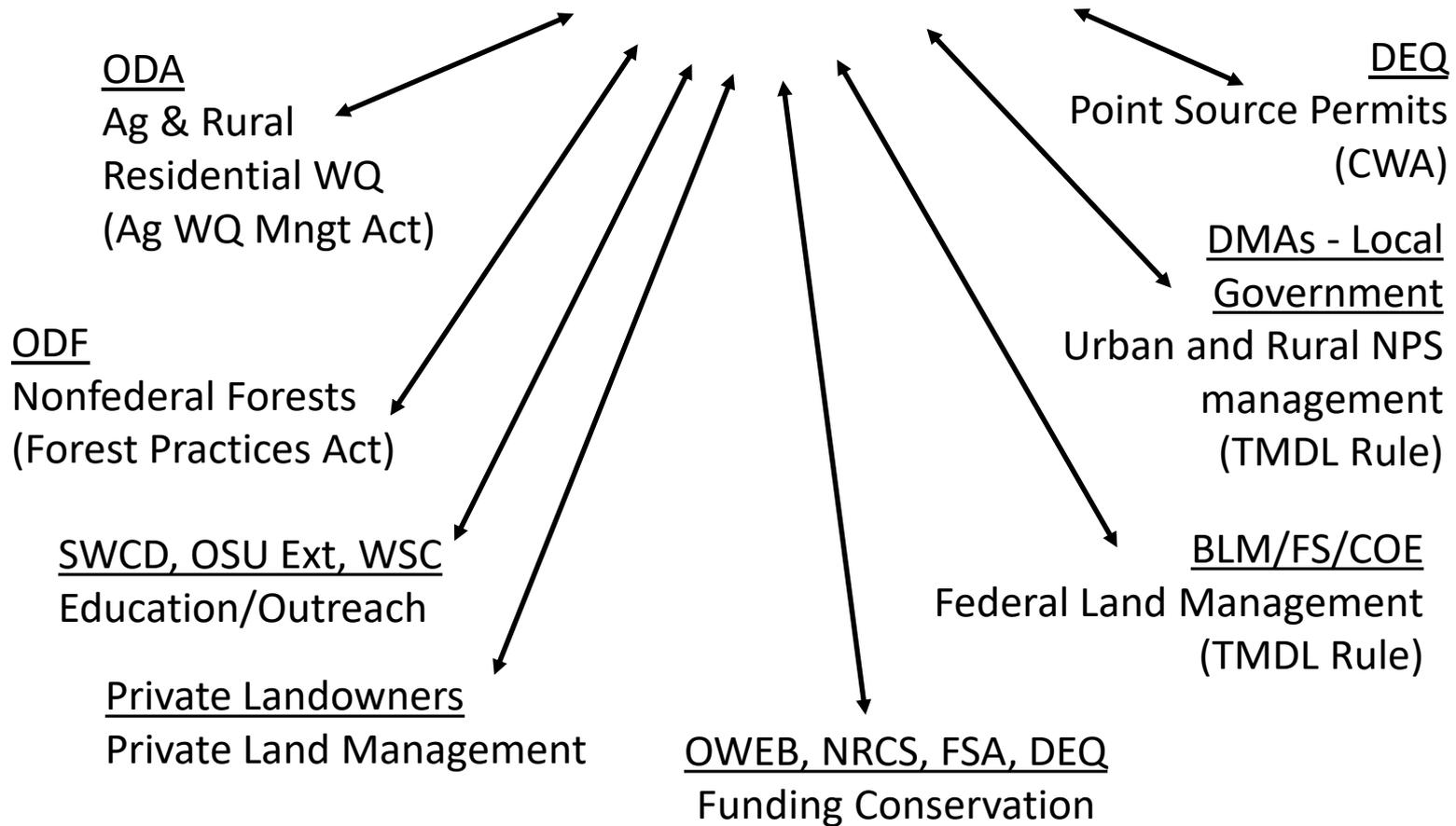


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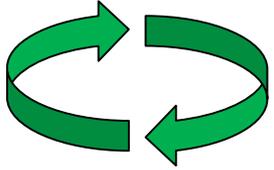
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TMDL Implementation & Authorities



TMDL and WQMP Implementation Process



Adaptive Management Process:

Implement - Monitor - Share Information - Learn - Improve

DMA's (DEQ)

- DMA's submit TMDL IP's for DEQ review and action
- DMAs submit annual reports to DEQ
- DEQ reviews TMDL Implementation Plans for effectiveness
- DEQ may require plan revisions

ODA

- ODA reviews and revises area plans and rules every two years
- DEQ reviews and provides comment
- EQC may petition ODA for changes

ODF

- ODF and Board of Forestry administer the Oregon Forest Practices Act
- DEQ reviews and provides comment on FPA rules
- EQC may petition Board for changes, Board can petition EQC to reconsider WQS & TMDLs

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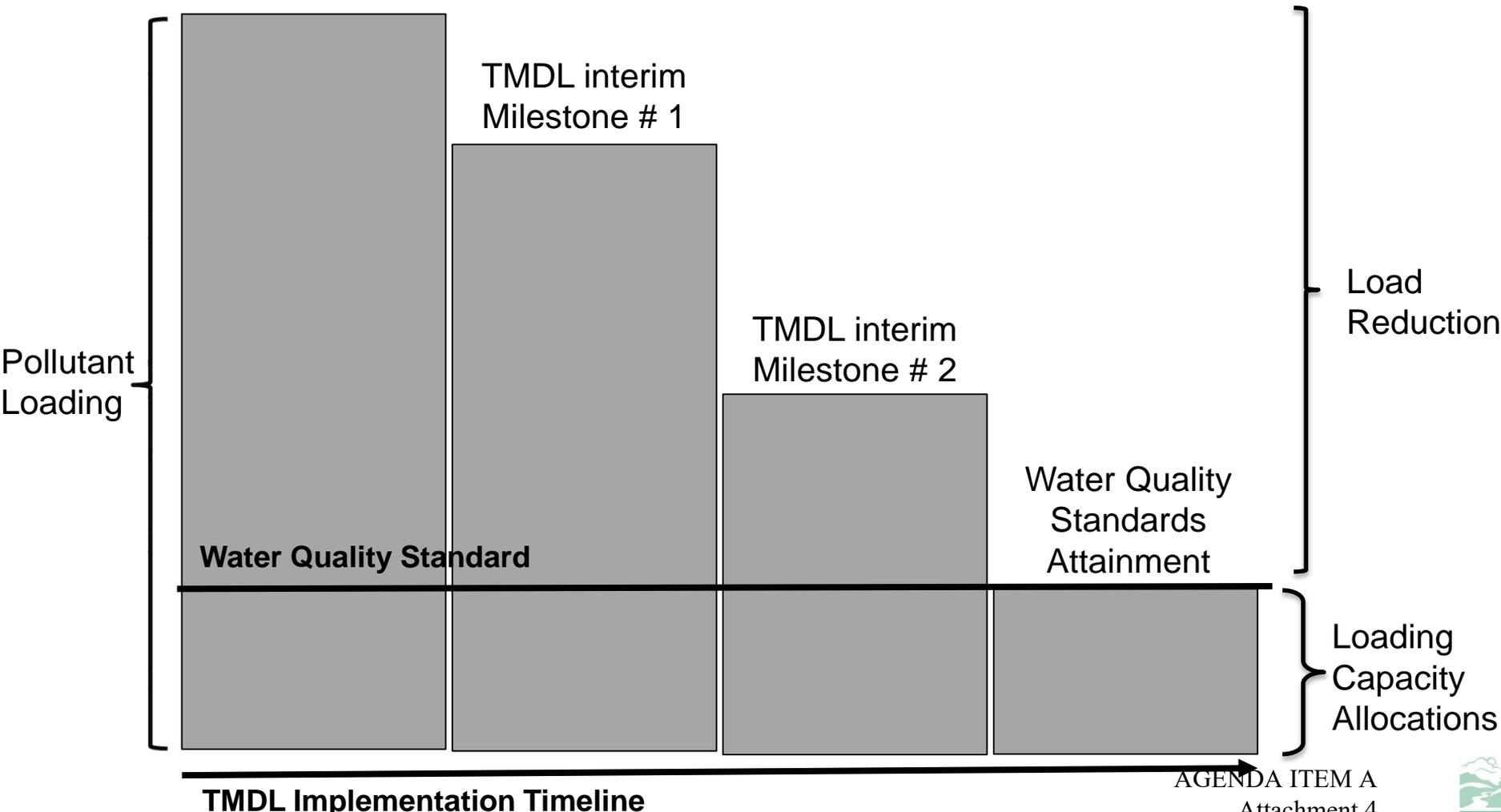
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Current Conditions:

303(d) list, TMDL

Adaptive Management Process:

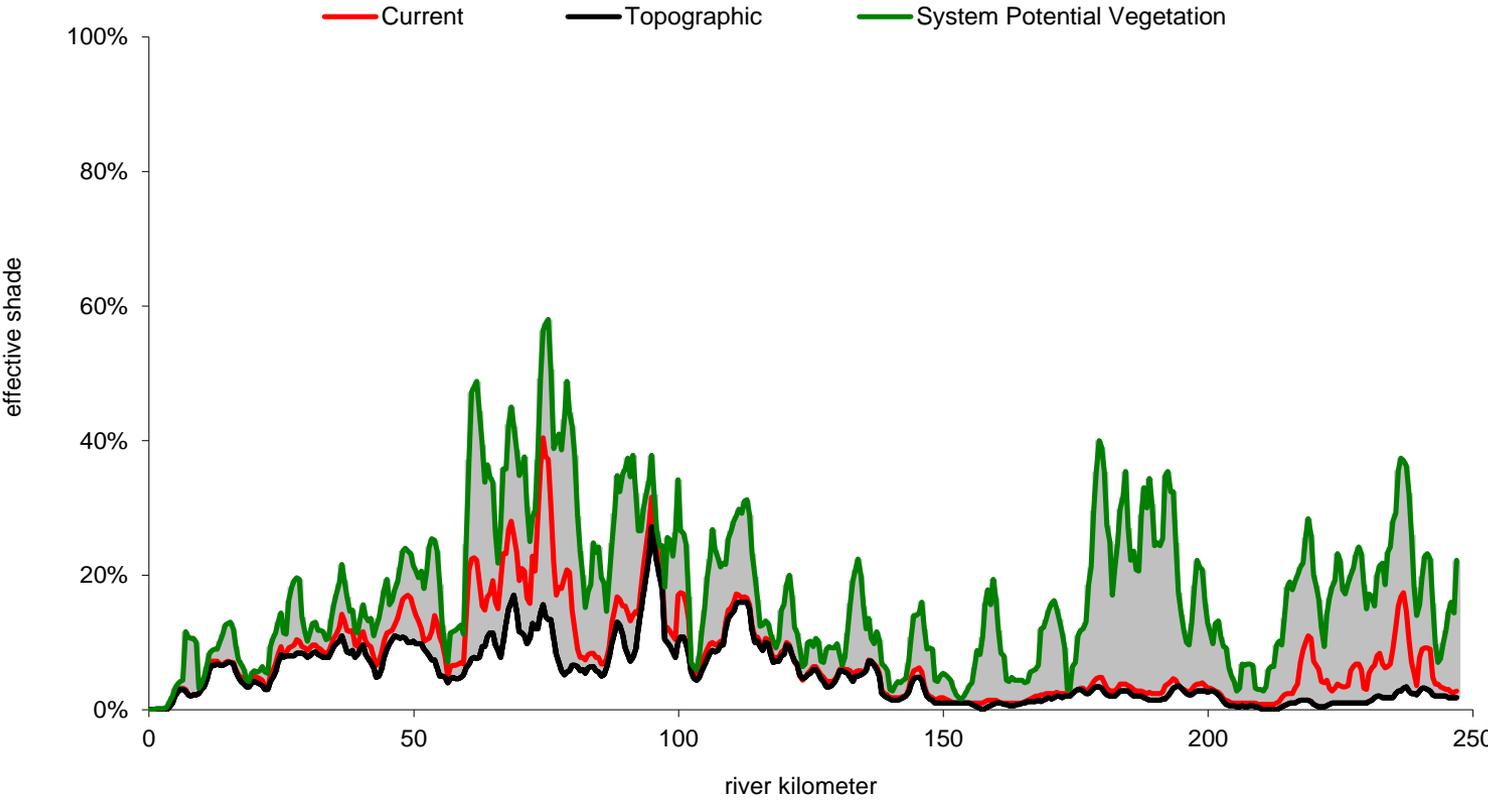
Implement - Monitor - Share Information - Learn - Improve



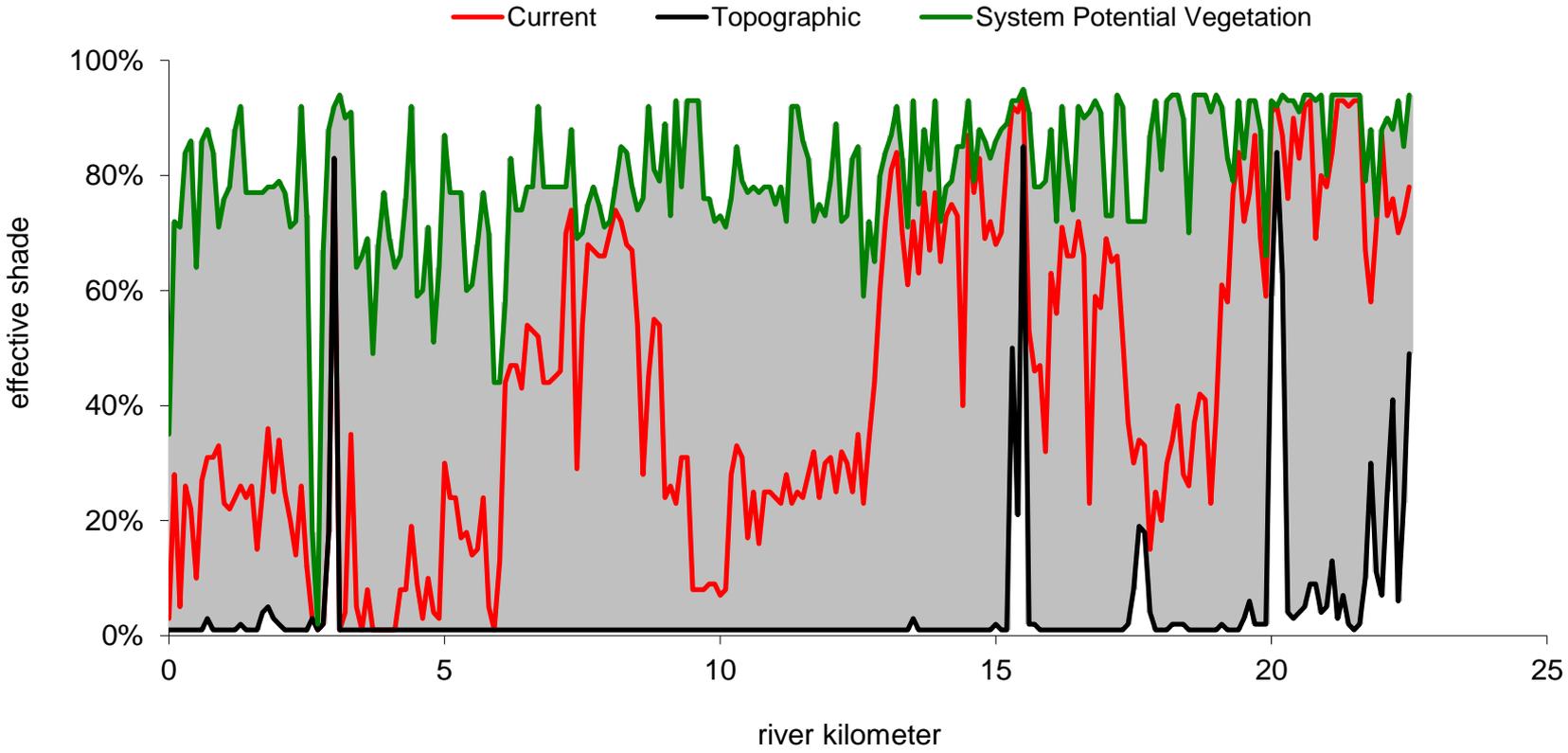
Rogue Basin Temperature TMDLs: Waters Covered and Shade Allocations

- Applegate Subbasin (2003): All streams (& a Sediment TMDL)
- Bear Creek Watershed (1992/2007): All perennial & intermittent streams (& a Sediment TMDL)
- Lobster Creek (2002): Perennial streams
- Sucker Creek (2002): All streams
- Rogue River Basin (2008): All perennial and intermittent streams
- Shade Allocations: Effective Shade @ System Potential Vegetation

Rogue River Shade: Current and Allocated Effective Shade



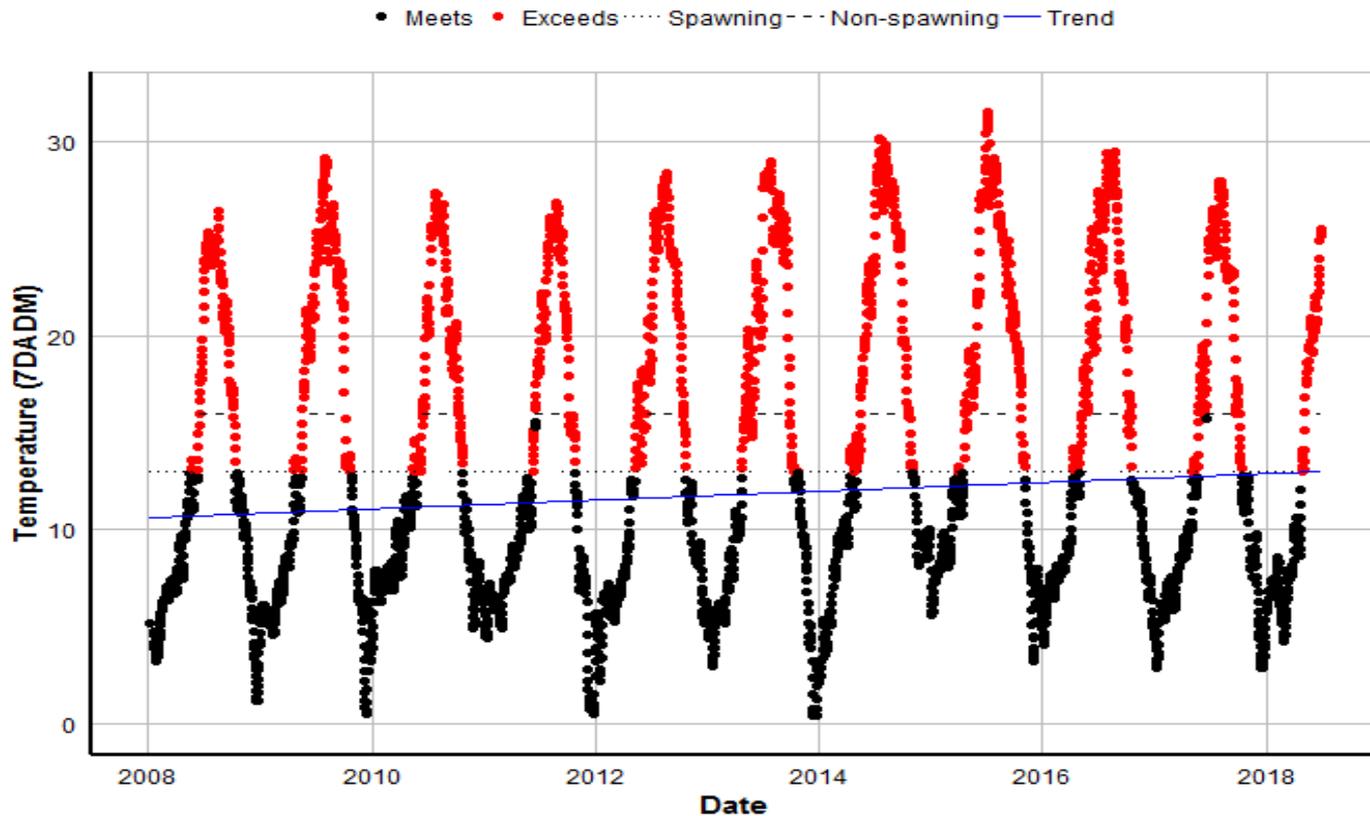
Elk Creek: Current and Allocated Effective Shade



Current Temperature Regime Example (Elk Creek)

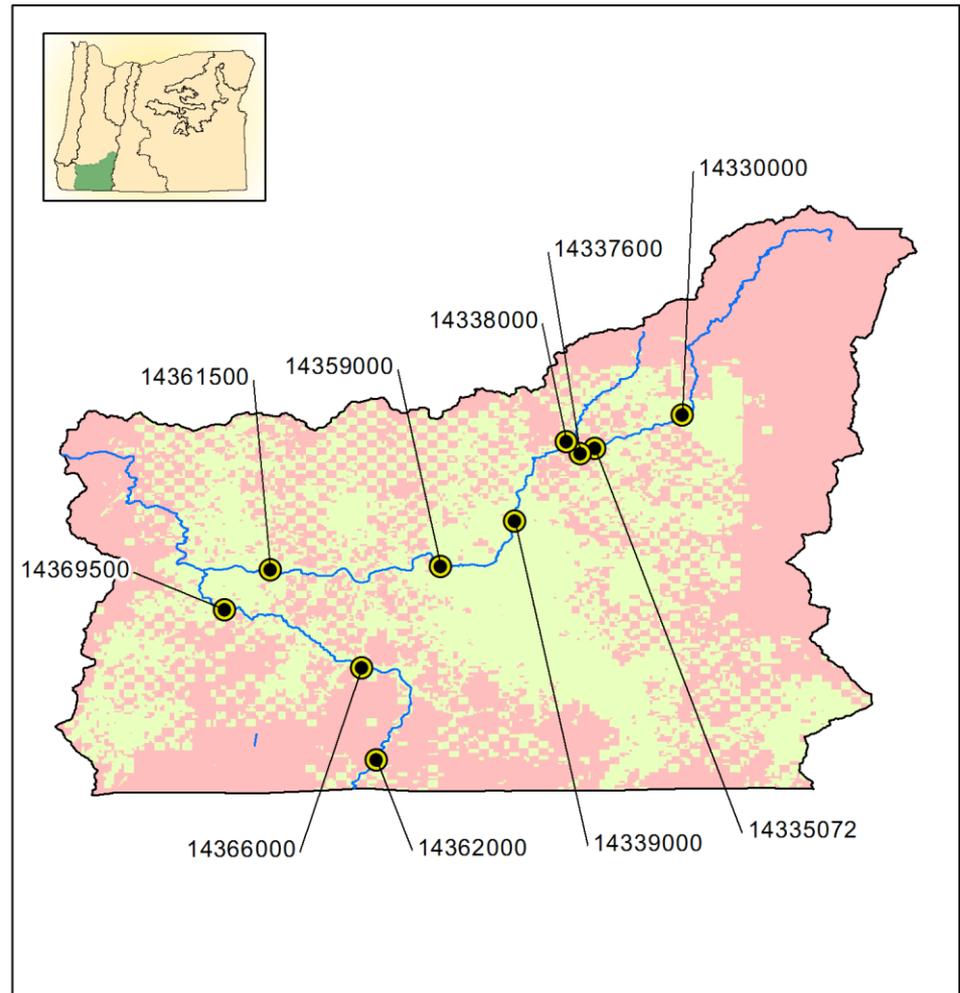
ELK CREEK NEAR TRAIL, OR, ID = 14338000

p value = 0.002, 99% Significance Level, slope = 0.22, n = 3808, median = 23



Siskiyou Georegion

Monitoring Station Locations



Federal Lands		● Stations
	Federal	 Streams
	Non-Federal	 Siskiyou Georegion

N

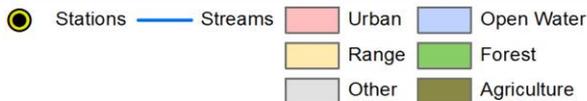
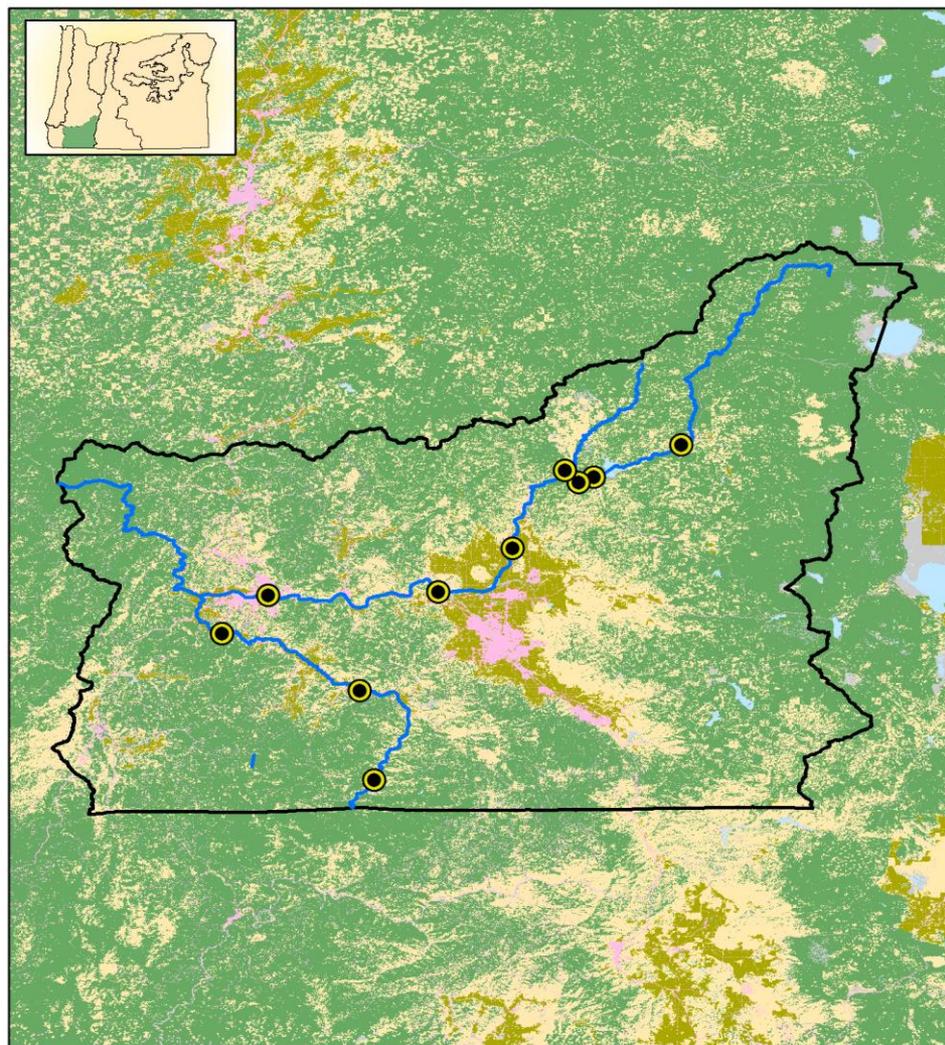


0 5 10 20 Miles

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Station Location & Land Cover

- Majority of georegion is forested
- Significant streamside range, agriculture, and urban areas
- Forested area is a mix of federal and private land
- Monitoring stations spaced throughout area



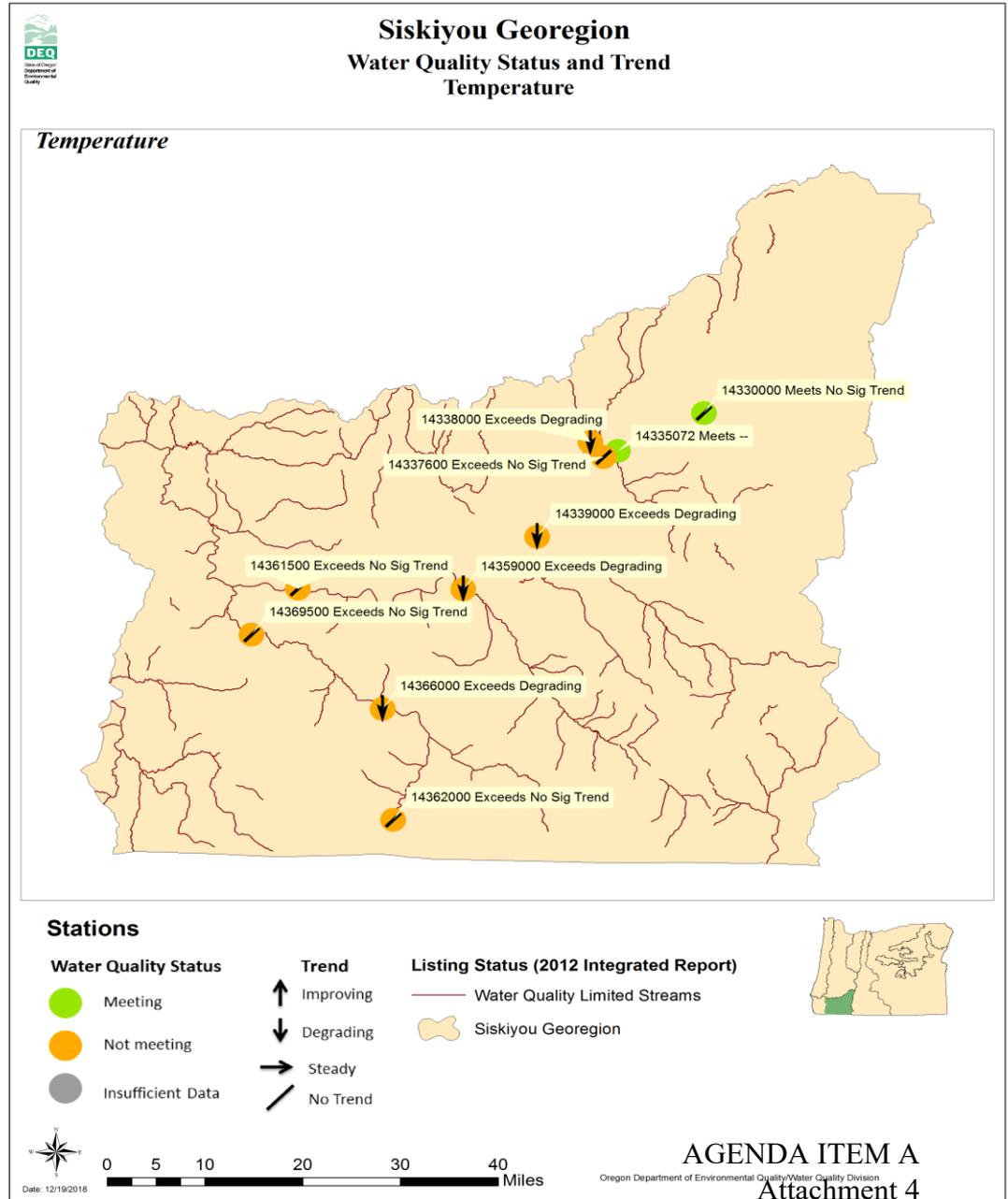
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Temperature Status & Trend

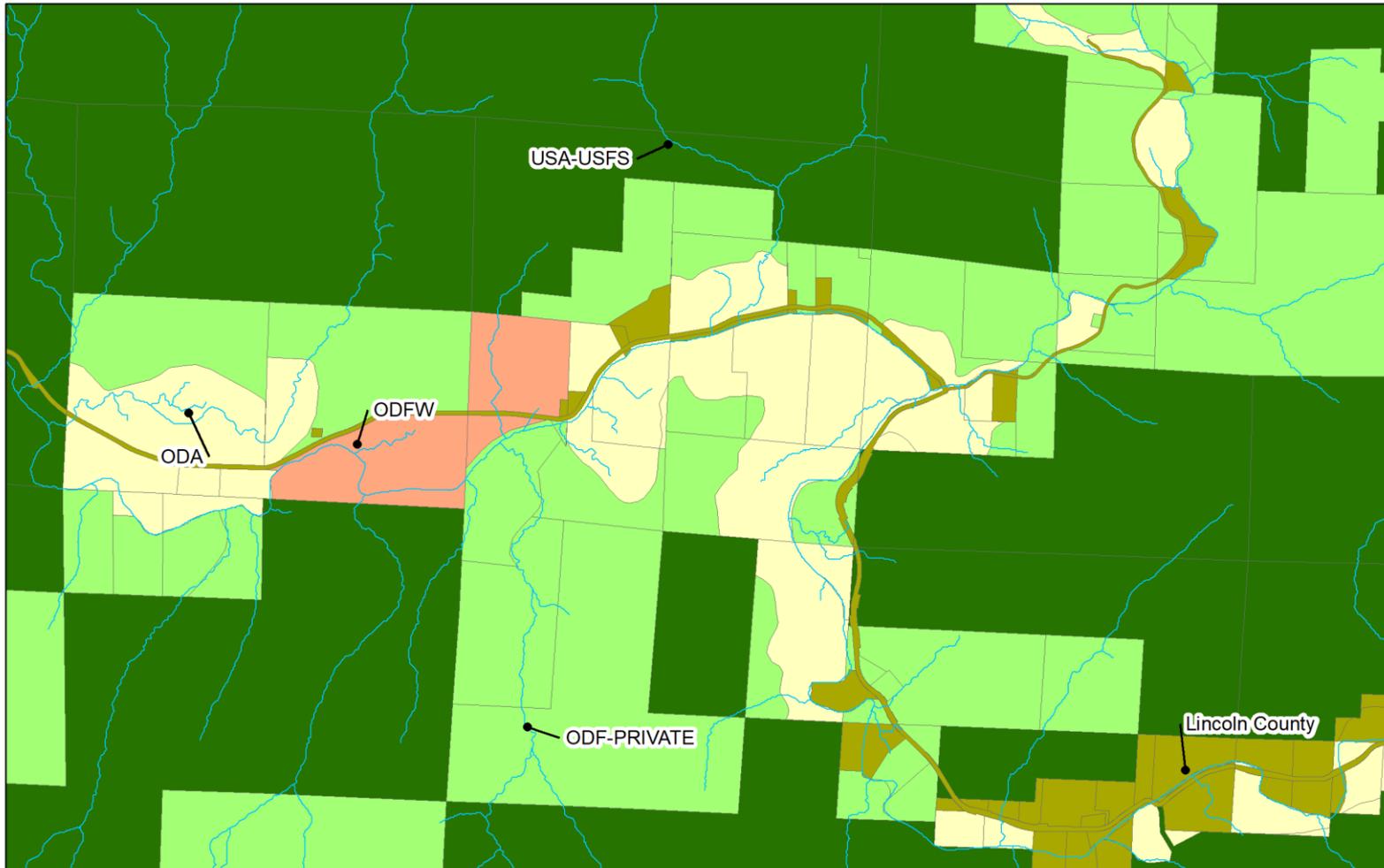
- 8 of 10 monitoring stations exceeding spawning and/or summer criteria
- 4 of 10 stations show worsening water quality
- 6 of 10 stations do not exhibit a trend



Mapping Designated Management Agencies (DMAs) and Responsible Persons

- DMA: *“a federal, state or local governmental agency that has legal authority over a sector or source contributing pollutants, and is identified as such by the Department of Environmental Quality in a TMDL.”*
- Mapping helps DEQ with source identification, and
- Links responsible entity to TMDL load allocations

Mapping DMAs: Mid-Coast Example

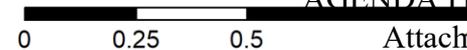


Legend

Streams

Designated Management Agencies

- City of Yachats
- Lincoln County
- ODA
- ODF-PRIVATE
- ODFW
- ODOT
- OPRD
- OR-DSL
- USA-USFS



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Mapping DMAs: Mid-Coast Example



Legend

Streams

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Questions?