Partners in Water Quality

Coordinated Water Monitoring in the Siuslaw subbasin

February 28, 2018
Newport, OR

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Adopt Water Quality Standards

Monitor Waters [State]

Assess Data against WQ Criteria (Methodology)

ID Waters NOT meeting Standards as Impaired (Cat 5 - 303(d) List)

Develop TMDLs & other plans

Control of Point Sources (Discharge Permits)

Nonpoint Source Control (State statutes, BMPs, Voluntary Measures)

Opportunity for Local VM partner activities to inform – Siuslaw WC

Report on Status of State Waters: Section 305(b) Report
**SWC Mission**

The SWC supports sound economic, social, and environmental uses of natural and human resources in the Siuslaw River Basin. The Council encourages cooperation among public and private entities to promote awareness and understanding of watershed functions by adopting and implementing a total watershed approach to natural resource management and production.

**Siuslaw subbasin**
Address Common Questions & Objectives

- Assess current WQ status
- Is WQ Impaired and are TMDLs needed?
- Identify information gaps. Revise 303d segments?
- Identify sources/causes of impairment
- Decrease NPS at source areas using voluntary measures (BMPs, restoration, focus outreach)
- Report findings to stakeholders
- Test Effectiveness of Strategies & Actions
2017 SWC CDO sites and 303d listed streams

Siuslaw River:
RM 5.7 – 105.9 summer cold-water and winter spawning periods

Wildcat Creek:
RM 0 – 18.8 DO not meeting DO winter spawning criteria before first Fall rain event
<table>
<thead>
<tr>
<th>Water Body</th>
<th>Status</th>
<th>Pollutant</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siuslaw River</td>
<td>Cat 5: Water quality limited, 303(d) list, TMDL needed</td>
<td>Dissolved Oxygen</td>
<td>DEQ criteria – 30-day mean minimum not less than 8.0 mg/l or 90% of saturation</td>
</tr>
</tbody>
</table>
2017 SWC Partnership
Roles | SWC

1. Seeks OWEB monitoring grant funds
2. DEQ Volunteer Monitoring Org.
3. Manage devices; conduct QC
4. Manage CDO, Temperature, grab data and prep for DEQ analysis

- 7 Continuous DO/temp
- 12 Continuous temp
- 1 Conductivity/temp
- 20 Grab sample sites
Summary CDO results

30-day mean minimum DO concentration mg/L

Cold water criterion

- SIT
- TWS
- LAL
- SBT
- SAF
Summary CDO results

Cold water criterion
2017 DEQ Water Monitoring Sites

- DEQ provide CDO devices (2016 & 2017)
- Support SWC in CDO deployment
- DEQ collect and analyze chemistry grab samples (3 mainstem sites)
Siuslaw Chemistry (2017) – Summary results (n=6)
Orthophosphate as P Results

Sites: 10000, 33842, 34222, 38329, 38385, 20086

Orthophosphate as P

Values: 0.014, 0.012, 0.010, 0.008, 0.006

Siuslaw Chemistry (2017) - Summary results (n=6)
What’s next for data work-up?

• Finish CDO work-up for all sites (July – Sept; Nov)
• Evaluate against applicable criteria (30-day mean min DO & DO % sat)
• Review grab data and chemistry for anomalies
• DEQ Grab data and field measurements available in AQWMS
• CDO Summary stats into AQWMS

Bottom line: DEQ could not conduct extended CDO deployments w/o local partners
Clean Water Act Process

- Adopt Water Quality Standards
- Monitor Waters [State]
  - Assess Data against WQ Criteria (Methodology)
  - ID Waters NOT meeting Standards as Impaired (Cat 5 - 303(d) List)
- Develop TMDLs & other plans
  - Control of Point Sources (Discharge Permits)
  - Nonpoint Source Control (State statutes, BMPs, Voluntary Measures)

Report on Status of State Waters: Section 305(b) Report

More better DATA‐informed decisions
Next steps for DEQ Assessment & TMDLs

• Report recommendations re: status to DEQ Assessment Group
• Determine whether TMDL development is needed
• Evaluate and develop technical approach (statistics, WQ model, etc.)
• Report findings to stakeholders
Next steps for SWC

- Target NPS pollution through voluntary measures and test effectiveness with additional data
- Integrate WQ data with habitat (AQI) and biological (spawning, juvenile) monitoring
- Participate in TMDL process and assist in filling data gaps