East Fork Lewis River

Partnership

for clean water

DEPARTMENT OF
ECOLOGY
State of Washington

Thank You!
City of La Center

Introductions

- **Name & Organization**

Is this your first East Fork Lewis River Partnership meeting?

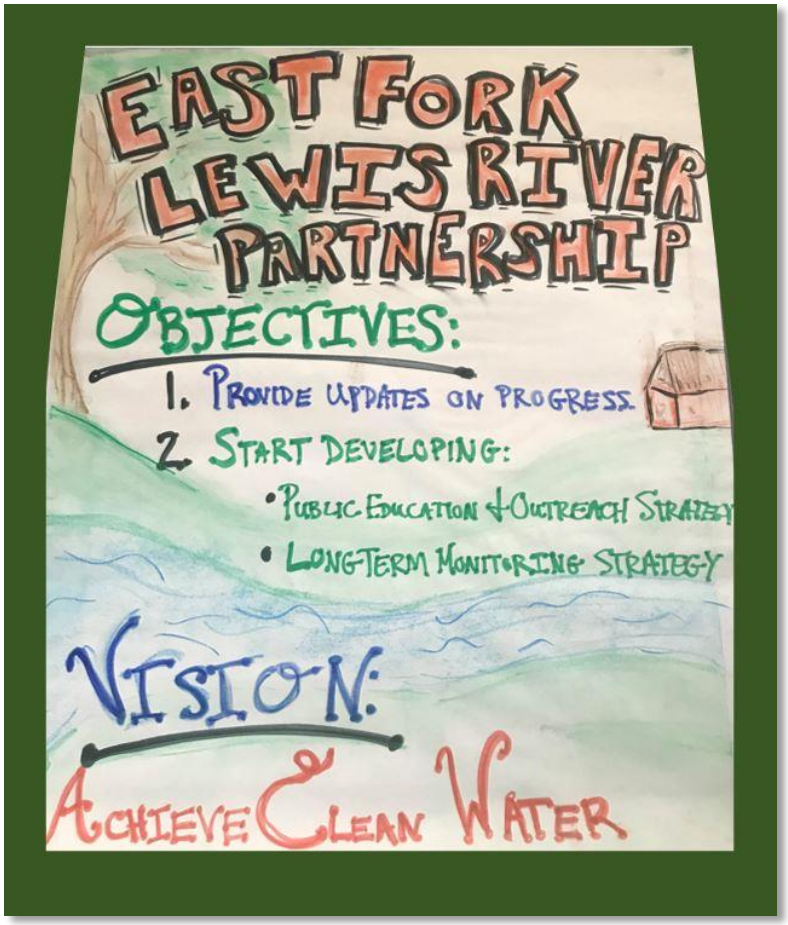
Objectives

- **To receive updates on projects and programs in the East Fork Lewis River.**

- **To start discussing public education and outreach, and long-term monitoring strategies.**

Agenda

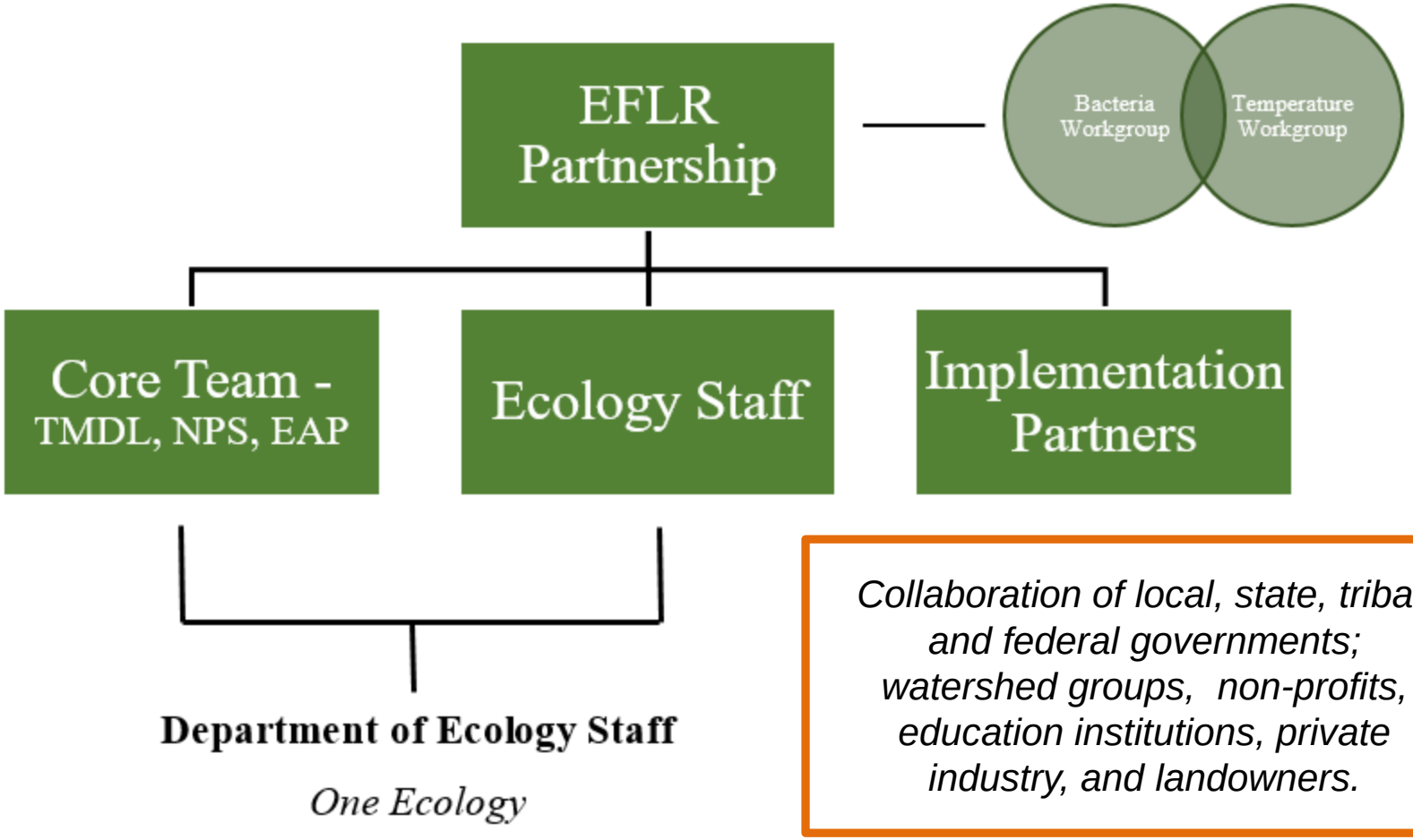
1. Progress – 2018 in Review
2. Recovery Plan Programmatic Review
3. Temperature Updates
4. Bacteria Updates
5. Combined Water Quality Funding Update
6. Facilitated Discussion
7. Report Out & Next Steps



Progress in 2018

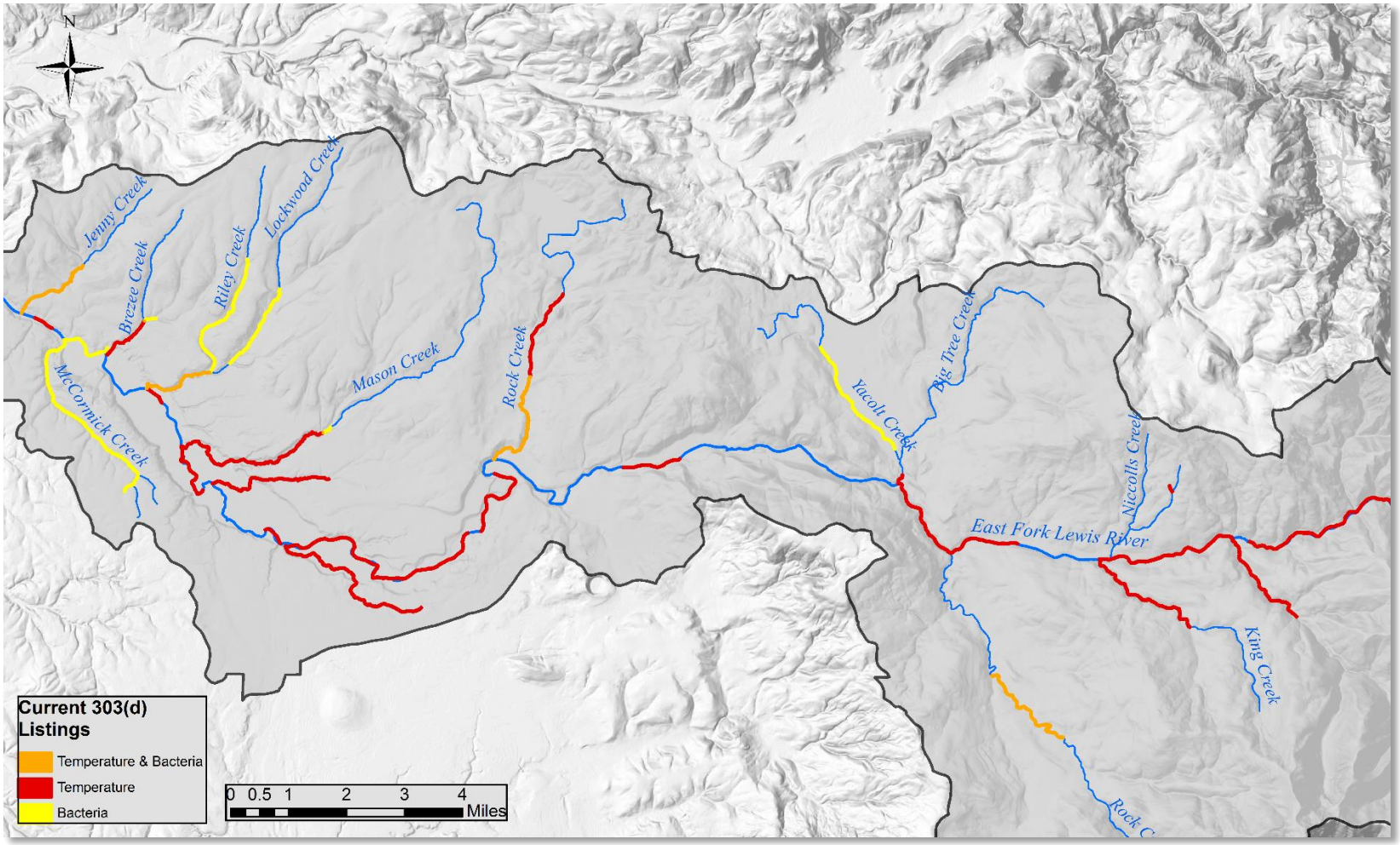
Water Cleanup Plan Update

East Fork Lewis River Partnership



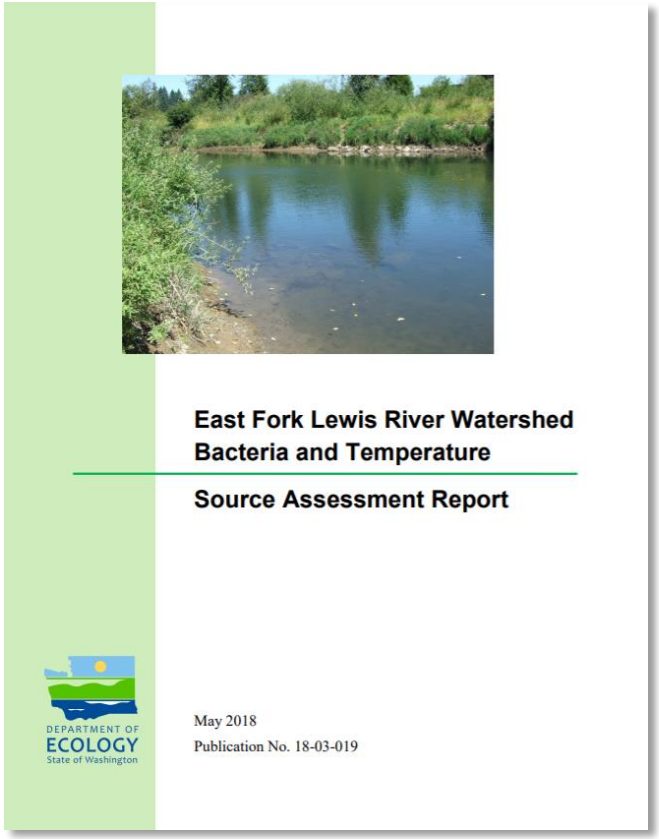
Collaboration of local, state, tribal, and federal governments; watershed groups, non-profits, education institutions, private industry, and landowners.

Impairments



Characterizing the Watershed

- **History**
  - **2005-2006 Initial Monitoring**
  - **2017 Monitoring (FC Only)**
  - **2018 Source Assessment**
    - **Analyzed Water Quality Data**
    - **Created Watershed Inventory**
    - **Identified Critical Areas**
    - **Implementation Recommendations**



Kickoff Meeting Recap

47 Partners from

28 organizations came to the first meeting!

Goals

1. Develop plan to address bacteria and temperature impairments.

2. Meet water quality standards (WQS) and support all beneficial uses in watershed.

3. Strengthen watersheds eligibility for funding.

4. Strengthen partnerships.

5. Support existing projects and plans.

6. Provide technical assistance and resources to partners.

East Fork Lewis River TMDL Alternative
9 Element Watershed Plan

1. Identify Critical Areas
2. Identify Solutions
3. Design an Implementation Program
4. Estimate Resources Needed
5. Develop a Timeline
6. Implement Watershed Plan
7. Adaptive Management - Measure Progress and Make Adjustments
8. Public Education and Outreach
9. Long-term Monitoring

Progress

- **Bacteria Workgroup**
- **Temperature Workgroup**
- **Private Landowner Technical Assistance Meeting**
- **Multiple one-on-one meetings**

Kickoff Meeting Recap

- **Source Assessment Report**
- **Partner Presentations**
  - Clark County Legacy Lands Program & Columbia Land Trust
  - Clark County Public Works
  - Lower Columbia Estuary Partnership
  - Washington State University Extension
  - Clark Conservation District
  - Department of Ecology Grant Program
- **Facilitated Discussion: Getting to Clean Water**

Kickoff Meeting Recap

What did we learn?

- **Challenges**
  - Funding availability.
  - Funding for projects on private properties.
  - Contacting private landowners.
  - Landowner engagement and willingness.
  - Urban Development.

- **Needs**
  - More collaboration and partnership between agencies, non-profits, and private landowners.
  - Outreach and community building.
  - Education for developers and homeowners, private landowners.
  - Develop common strategy for EFLR.
  - Connect environment to economy.

Temperature Workgroup

- **Objective**
  - Learn about temperature work underway and start identifying critical areas, priority actions, and opportunities

- **Agenda**
  - Source Assessment Priorities
  - Presentations - FOEF & LCFRB
  - Facilitated Discussion

All Sites

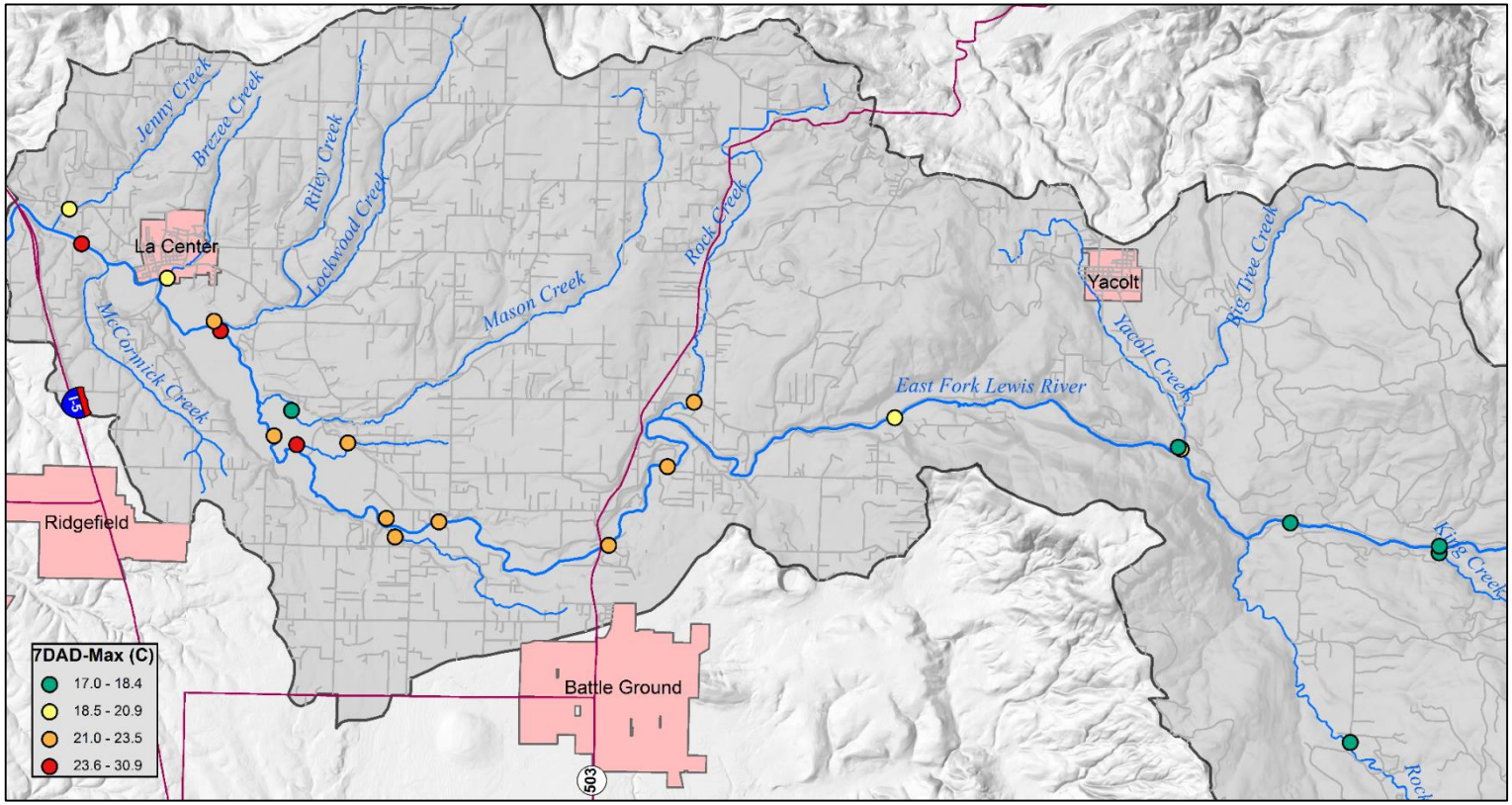
EXCEEDED

(Did not meet)

Temperature WQS

>16º C

Summary: Temperature Results

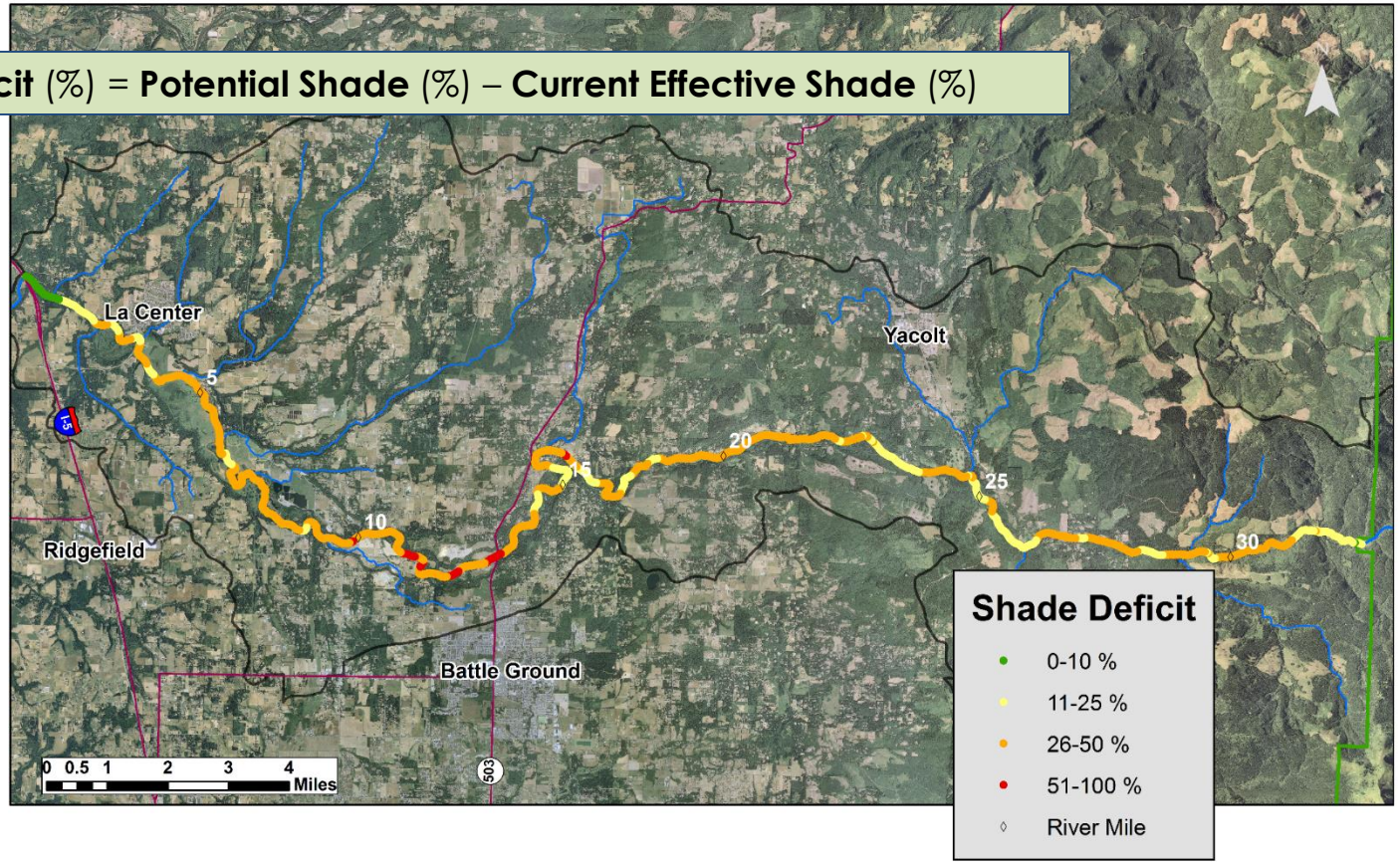


7-DADMax is the 7-day average of the daily maximum temperatures

Temperatures Increase Downstream

Summary: Shade Analysis Results

Shade Deficit (%) = **Potential Shade** (%) – **Current Effective Shade** (%)



Detailed methodology in QAPP (Raunig and McCarthy, 2017) and Report (McCarthy, 2018)

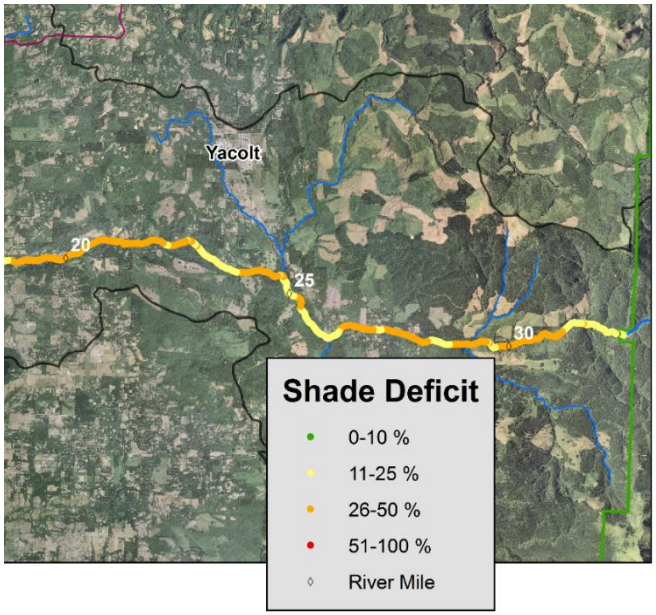
Lower
Mouth to RM 5.7
Deficit = 27%

Middle
RM 5.7 – 20.3
Deficit = 35%

Upper
RM 20.3 – 32.3
Deficit = 26%

Priorities – Upper Watershed

Average Shade Deficit = 26%

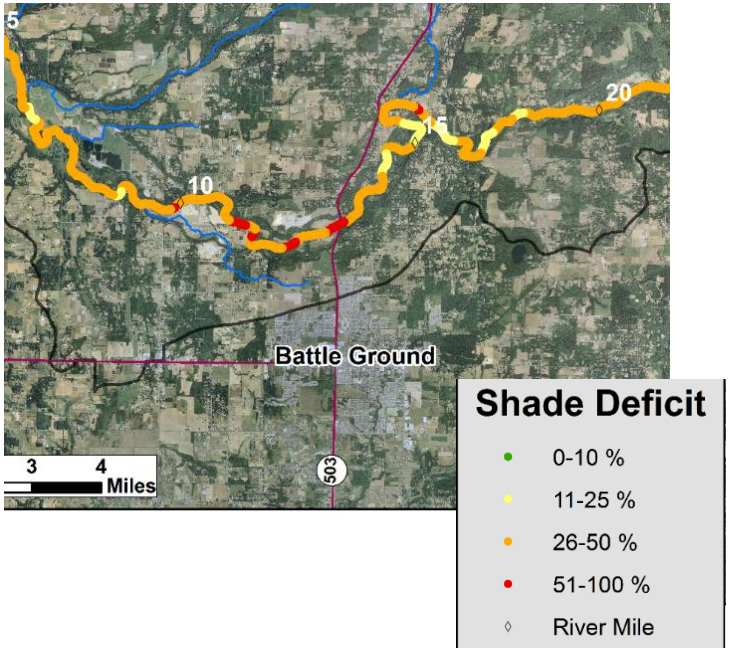


Tier 2

- RM 21-22 (34% Deficit)
- RM 27-28 (34%Deficit)

Priorities – Middle Watershed

Average Shade Deficit = 35%

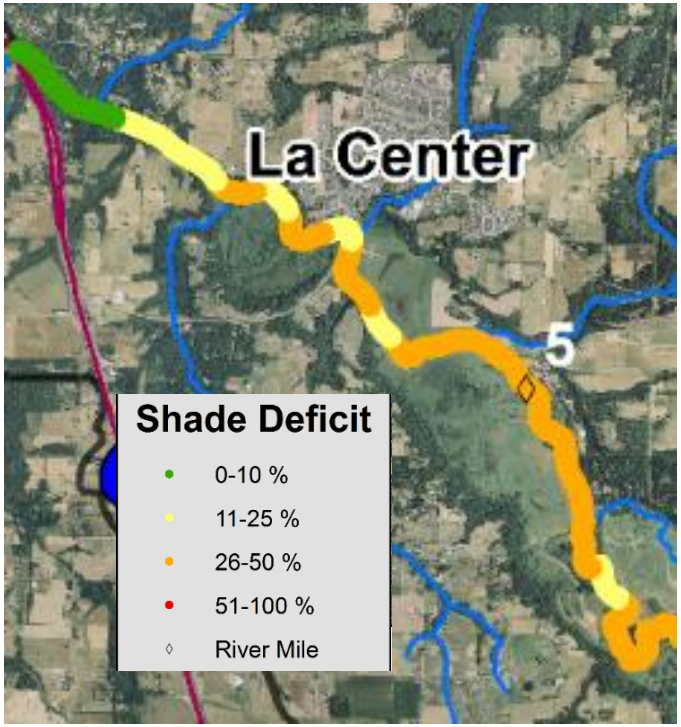


- **Tier 1**
  - **RM 11-12 (45%)**
  - **RM12-13 (49%)**
- **Tier 2**
  - **RM 6-14 (>30%)**

Warmest Temperatures = 26 ºC at Dean Creek

Priorities – Lower Watershed

Average Shade Deficit = 27%



- Tier 2
  - RM 4-6 (>30%)

Temperature Workgroup

What did we learn?

- **2,000+ Acres under public ownership in watershed.**

- **Temperature Needs….**
  - Private landowner education and outreach.
  - Backyard habitat program.
  - Organizations and businesses for tree planting projects.
  - Focus on planting right tree in right place.
  - Shade analysis in tributaries.
  - How……. influence temperature.
    - Groundwater, water withdrawal, low summer flows, and reduced snowpack.
    - Width to depth ratio.
    - East to west flow.
    - Beaver dams.
    - Stormwater BMPs.
    - Manmade dams/ponds.

Bacteria Workgroup

- **Objectives**
  - Learn about bacteria work underway and start identifying critical areas, priority actions, and opportunities

- **Agenda**
  - Source Assessment Priorities
  - Presentations – ECY NPS & CCPH
  - Facilitated Discussion

Bacteria Workgroup

- **Source Assessment Priorities** = Lower & Middle Watershed

  - **Tier 1**
    - Brezee Creek
    - McCormick Creek
  - **Tier 2**
    - Jenny Creek
    - Riley Creek
    - Lockwood Creek
    - Rock Creek North

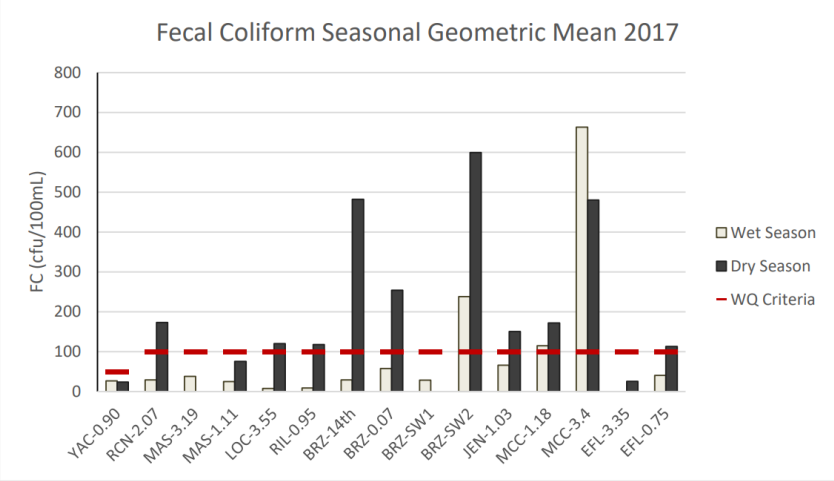


Figure 29. FC results for geometric mean, 2017.

Bacteria Workgroup

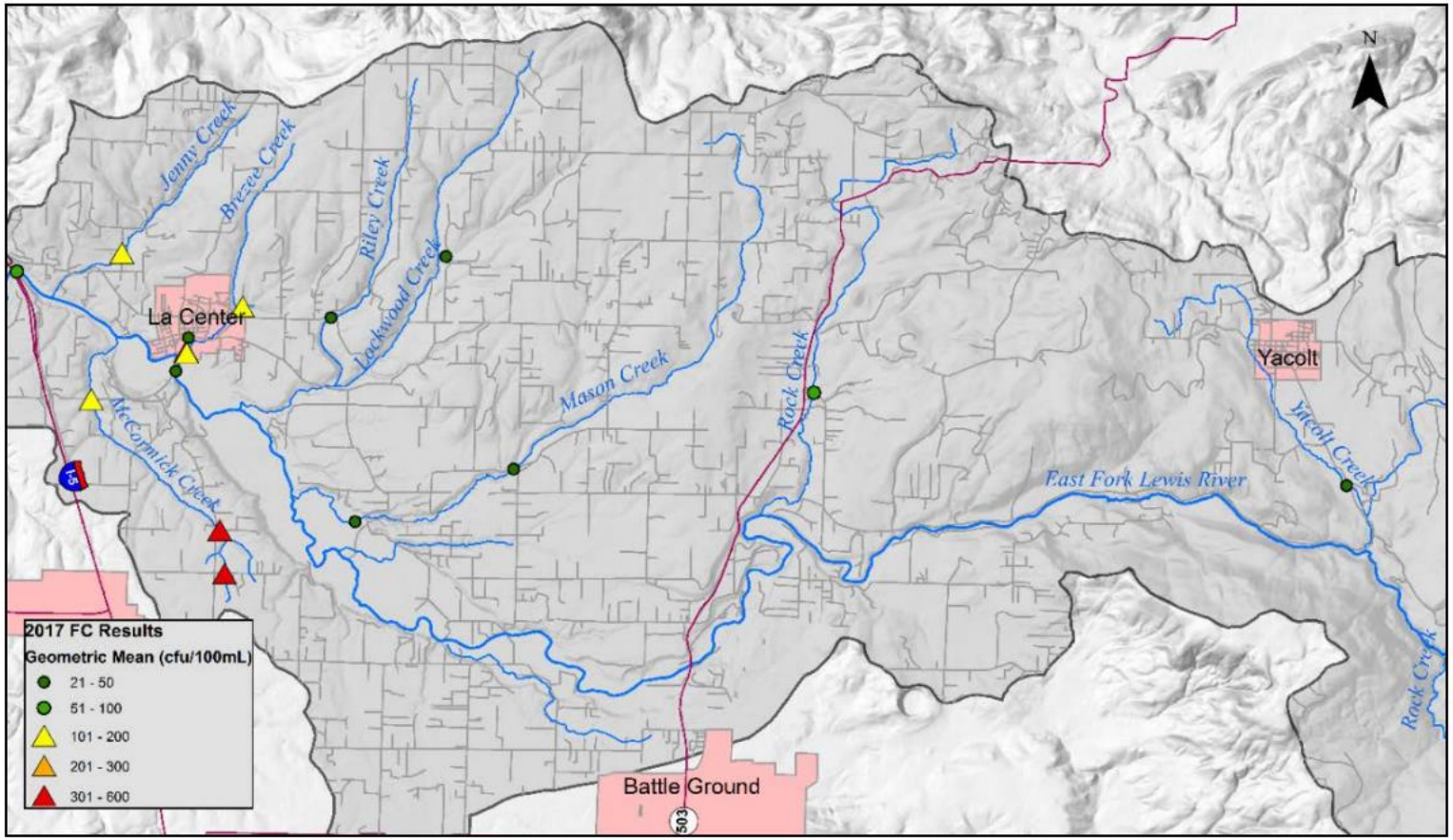


Figure 30. FC results for geometric mean (annual), 2017.

Bacteria Workgroup
What did we learn?

- **34,500 septic systems in Clark County**
  - 30% (~10,350) out of compliance with OSS Inspection

- **Bacteria Needs….**
  - Education and Outreach for private landowners.
  - Pollution Identification & Correction Program.
  - Source Tracking resources.
  - OSS Inspection Enforcement / Compliance Program.
  - Support for Conservation District.
  - IDDE Programming / Stormwater BMPs.
  - Partnerships and Collaboration.

Private Landowner Technical Assistance Meeting

- **Objective**
  - Discuss private landowner technical assistance

- **Desired Outcomes**
  - Understand capacity
  - Current challenges and need
  - Discuss partnership and collaboration opportunities

What did we learn?

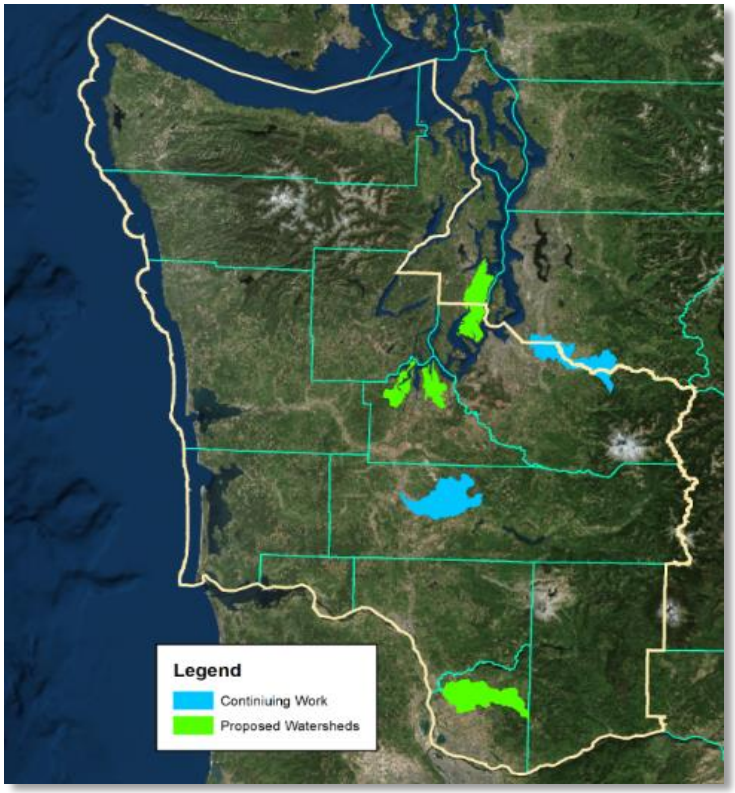
- **Clarified Roles, Focus Areas, and Capabilities.**
  - WSCC, USDA NRCS, Clark CD, WSU Extension, County Code Enforcement, ECY NPS, Watershed Alliance etc.

- **Limited Capacity & Funding.**
  - Some funding for projects, less money for staff.

What else have we been up to?

- **ECY Nonpoint Source**
  - Approval to work in East Fork!
  - Public Education & Outreach
  - Proactive Investigation

- **Planning & Partnering**
  - Clark County Public Works
  - Clark County Public Health
  - Clark Conservation District
  - City of La Center



Facilitated Discussion

Building the TMDL Alternative

Public Education & Outreach

- *Private landowner outreach is a huge need…*

- **Updates on…**
  - Outreach events, workshops, public education efforts coming up in 2019?

Public Education & Outreach

- *Private landowner outreach is a huge need…*
  - **Opportunities to partner?**
  - **Resources needed to expand reach?**
  - **Other Considerations**
    - **Additional target audiences?**
    - **Key messages?**
    - **New dissemination methods?**
      Print, TV, Radio, Billboards, Videos, Social Media

Monitoring

Who, what, where, when, and why?

- **Who?**
  - Who is currently collecting data in the watershed?
- **What?**
  - What information is being collected?
  - What type of information should be collected?
  - What resources are needed?
- **Where?**
  - Where is monitoring happening?
  - Where is it needed?

Monitoring

Who, what, where, when, and why?

- **When?**
  - When is monitoring happening?
  - When should it be happening?

- **Why?**
  - What questions are we trying to answer?
  - Code Enforcement? Compliance? Grant Requirements?

- **How?**
  - Investigative vs. Effectiveness?
  - Short-term grab samples vs. long-term stations?

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- **How?**
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Report Out & Next Steps

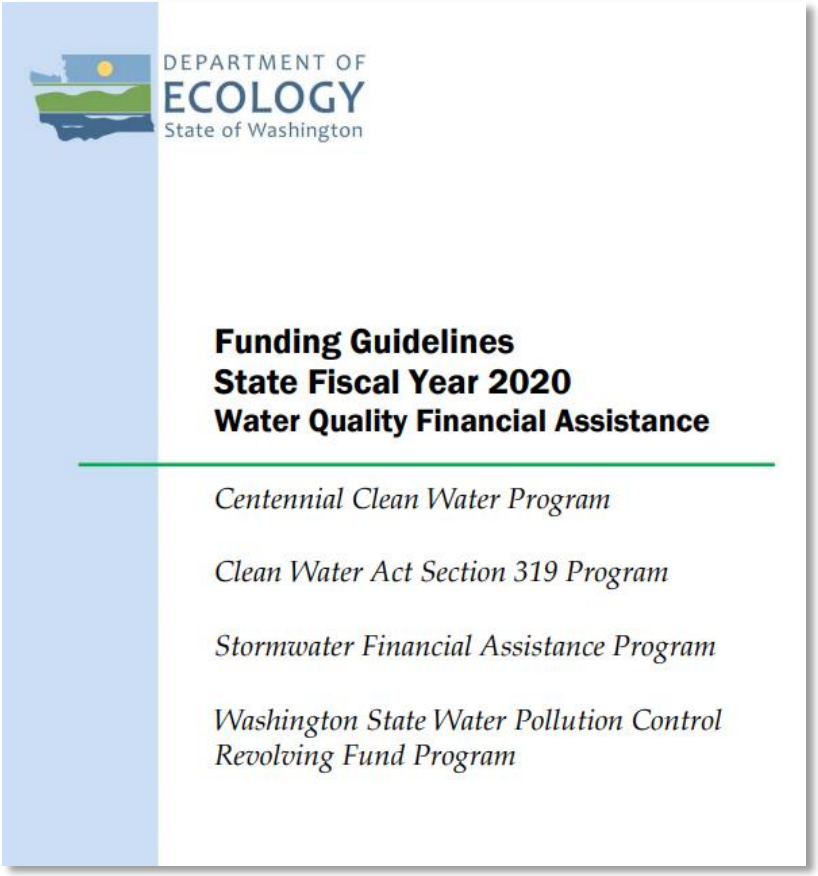
Facilitated Discussion

- **Public Education and Outreach**
- **Monitoring**

Next Steps

- **Writing DRAFT Water Cleanup Plan / TMDL Alternative**
- **NPS Investigation and Outreach**
- **Other**
  - Share your project ideas with Ecology Staff!
  - Are you applying for ECY funding in 2019?
  - Are there future discussion topics or meetings needed?
  - Is there interest in a spring picnic?

Water Quality Funding



Due: October 2019

- Wastewater facility
- Onsite sewage system
- Stormwater facility
- Nonpoint source activity

Workshops ~ August 2019

Ongoing Opportunities

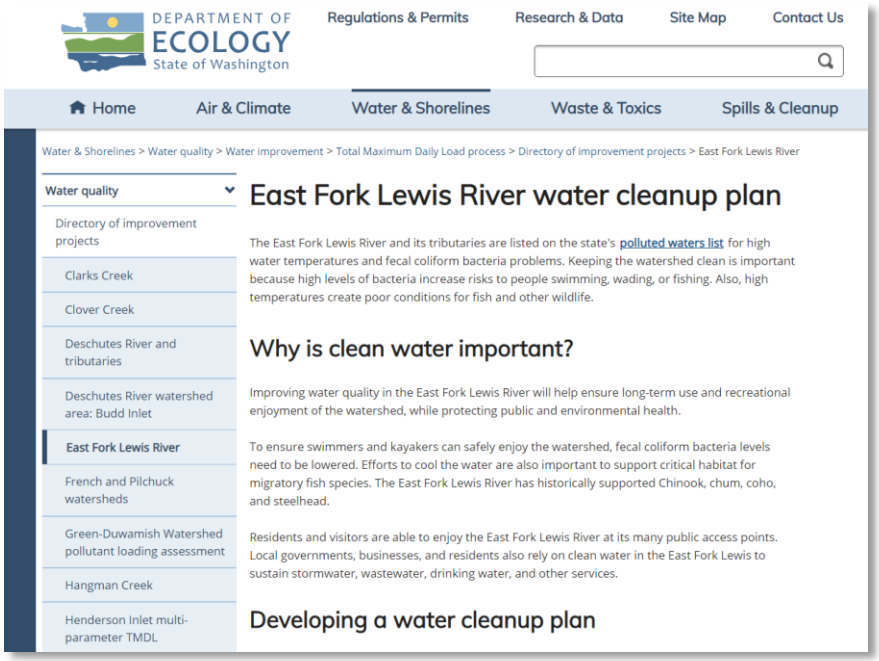
- **Mason Creek Acquisition & Restoration**
  - *Clark County & LCEP*
- **McCormick Creek Riparian Restoration**
  - *Clark County PUD*
- **Recovery Plan Programmatic Review**
  - *LCFRB*
- **Ridgefield Pits Technical Advisory Committee**
  - *LCEP*

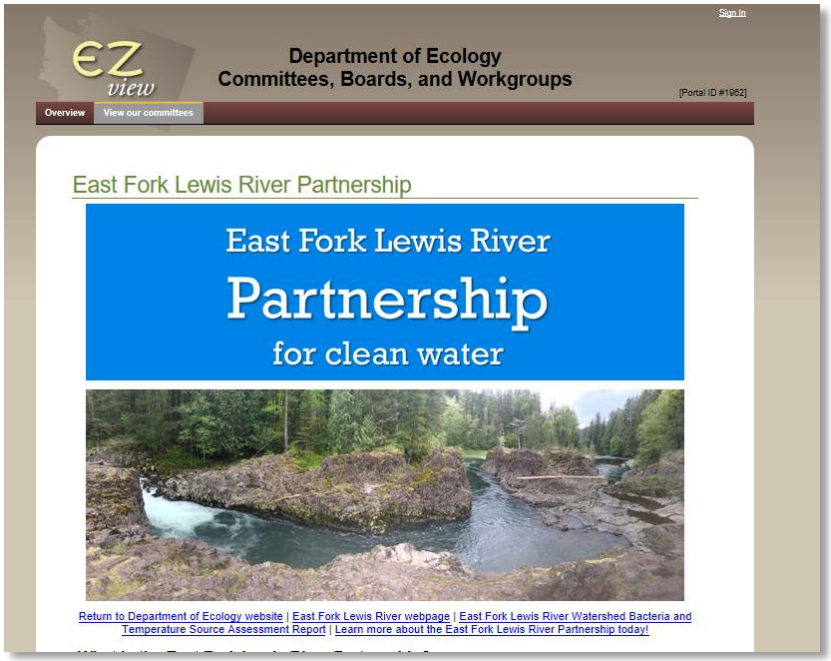
Other Potential Opportunities?

- Cold Water Refugia Analyses
- Beaver Dam Suitability Analyses
- Coordinated Private Landowner Engagement
- Pollution Identification and Correction Program
- Partnerships for Education and Outreach Workshop series?
- Effectiveness Monitoring Resources

East Fork Lewis River Website

Stay up to date!





Meeting Summary and Materials will be posted online



Thank You!

Devan Rostorfer, TMDL Lead
Jennifer Riedmayer, Nonpoint Source Specialist
Shawn Ultican, Nonpoint Source Specialist



FEATURED

Partnership seeks to improve East Fork water quality

Bacteria, temperature chief issues with Columbia River tributary

Rick Bannan / rick@thereflector.com Feb 11, 2019

Retired U.S. Forest Service Hydrologist Dick Dyrland looks out onto the East Fork Lewis River in August 2018. Dyrland has been outspoken about concerns over the deterioration of the river, which recently has been the focus of a partnership formed specifically to improve conditions in the lower watershed with regard to bacteria and temperature issues.

photo by Rick Bannan

Local, state and federal agencies alongside nonprofits and a few private entities are coming together in an effort to improve the water quality of the East Fork Lewis River watershed.