

Identifying bacteria sources in Clark County streams

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Animal impacts on stream health and water quality

Without proper management:

- Riparian damage
- Bacteria
- Nutrients



Animal impacts – damage to riparian areas



Source: EPA

Animal impacts – fecal coliform bacteria and nutrients

- Uncovered manure
- Animal access to streams waterways



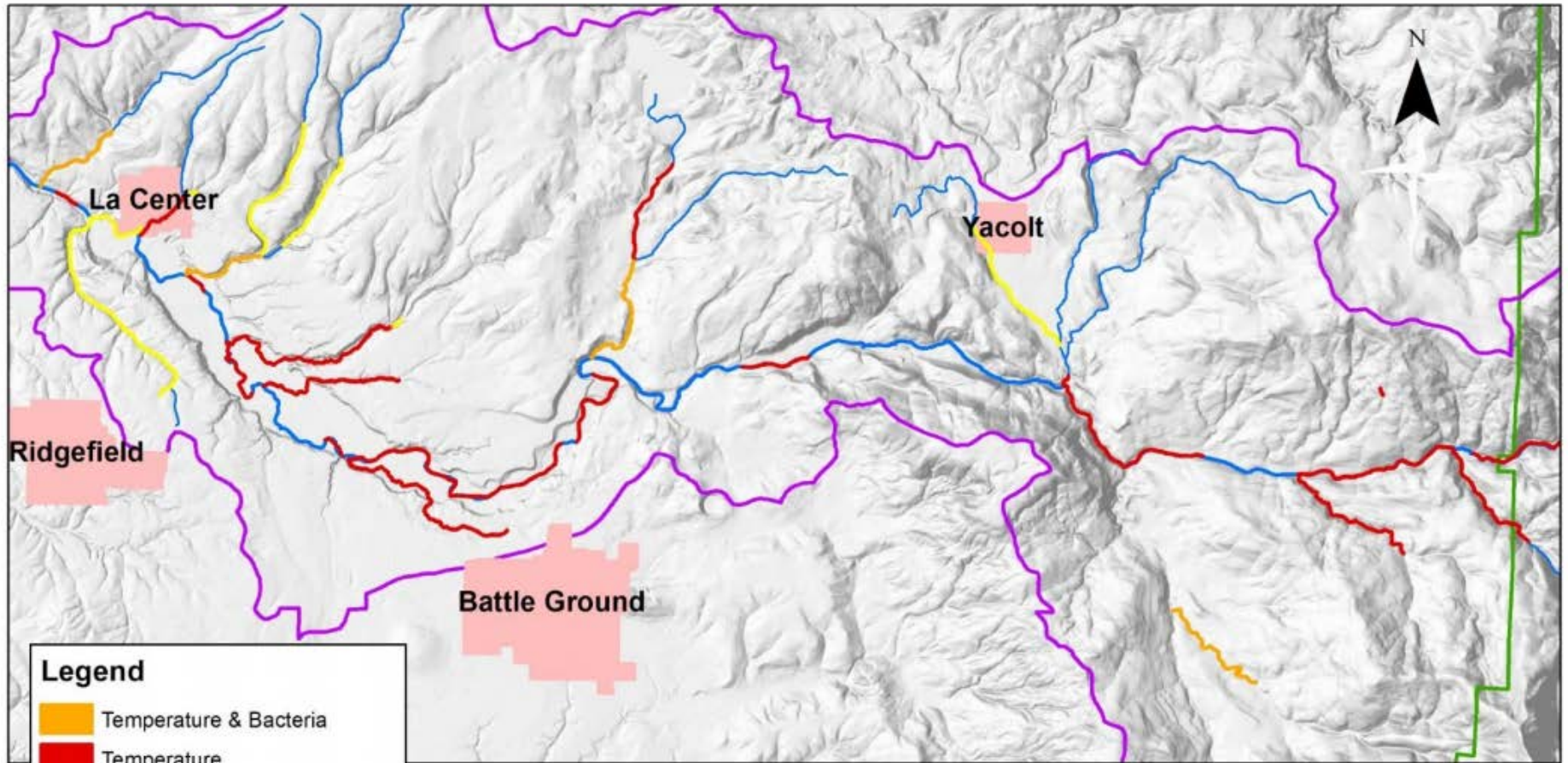
Case Study: East Fork Lewis River

- High priority salmon bearing watershed
- High development pressure
- Lots of agriculture
- Many homes use on-site sewage



Source: WA Dept. of Ecology

East Fork Lewis River



Legend

- Temperature & Bacteria
- Temperature
- Bacteria

Boundaries

- Watershed Boundary
- Gifford Pinchot National Forest

Washington State's Polluted Waters List (303d)

East Fork Lewis River Partnership

Ecology-led process:

1. Water quality monitoring and data collection
2. Source assessment
3. Water cleanup plan
4. Implementation



Source: WA Dept. of Ecology



East Fork Lewis River Monitoring

1. Identify locations with pollutant problems
2. Assess land uses
3. Microbial identification and source tracking
 - Uses fecal DNA markers to determine sources
 - Tested for human, dog, horse and cow



East for Lewis River focus areas

Jenny Creek

McCormick Creek

Brezee Creek

Rock Creek North



East Fork Lewis River sources identified

2020 samples indicate human and dog are primary sources.

Horse

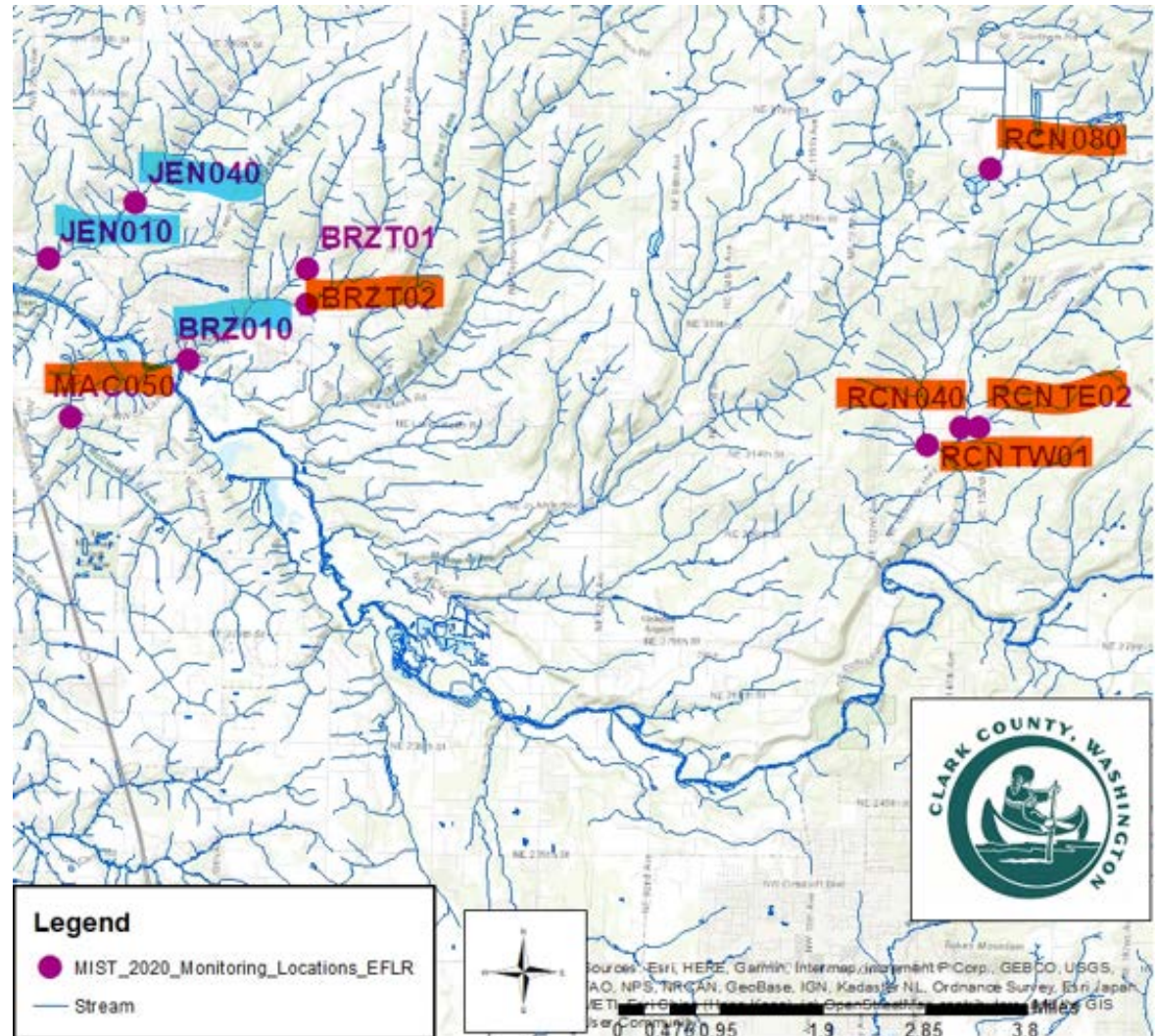


- Samples detected only once at sites, not quantifiable
- McCormick Creek
- Breeze Creek
- Rock Creek North Creek

Cow



- Jenny Creek – multiple detections
- Brezee Creek – one, quantifiable sample



East Fork Lewis River cleanup plan

Priorities:

- Septic systems
- Small acreage agriculture
- Stormwater management
- Riparian restoration



East Fork Lewis River Water Cleanup Plan

Bacteria and Temperature Alternative Restoration Plan

By

Devan Rostorfer

For the

Water Quality Program

Washington State Department of Ecology

Southwest Regional Office

Olympia, Washington

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East Fork Lewis River – implement!

Support from partners:

- Technical assistance
- Workshops on BMPs
- Riparian restoration



Whipple Creek

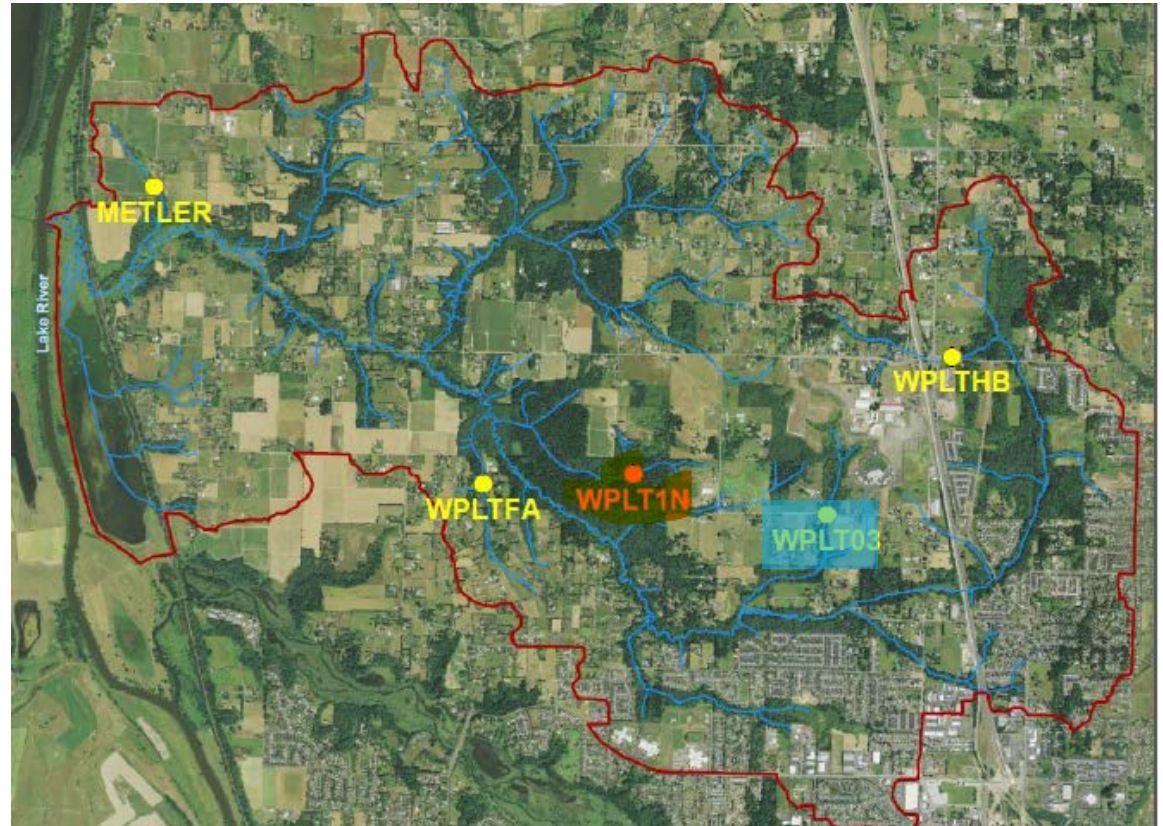
2019 samples found human and dog multiple times at quantifiable levels.

Horse 

- Detected only once, not quantifiable

Ruminant 

- One quantifiable sample found



Thank you!

Comments and questions

Clark County Public Service Center

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Wetlands, Priority Habitat, and Agricultural Activities

Driving Policy and the County's Implementing Code

Brent Davis – Wetland and Habitat Review Manager, Community Development

May 19, 2021



Overview

- **Policy Summary**

- Growth Management Act (RCW 36.70A)
- Shoreline Management Act (RCW 90.58)
- Columbia River Gorge National Scenic Area (16 U.S. Code Subchapter II § 544)
- Clark County Comprehensive Plan

- **Regulatory Summary**

- Applicable Codes
- Existing/ongoing activities
- Changes to activities within existing agricultural footprints
- Expansion/new activities



Overview

- **Regulatory Summary (cont.)**

- Reviews and Permits
- Critical Areas Update



Policy Summary



Growth Management Act (GMA)

- Requires planning and zoning designations for certain agricultural lands and gives cities and counties authority to regulate agriculture as a land use.
- Requires designation and protection of “critical areas,” including wetlands and fish and wildlife conservation areas, giving “special consideration” to conservation and protection of anadromous fisheries.
- Cities and counties are required to include best available science in developing policies and development regulations to protect the functions and values of critical areas.
- The Growth Management Hearings Board has concluded that cities and counties cannot exempt existing/ongoing agriculture from critical area regulations outright.



Shoreline Management Act (SMA)

- Applies to lands within 200 ft. of the “Ordinary High Water Mark” (OHWM) or within the “Flood Hazard Area” of streams with a minimum mean annual flow of 20 cfs and extends to “associated” wetlands.
- Includes agriculture as a Shoreline use.
- Does not apply to activities that are not “development.”
- Provides for a simplified permitting pathway for specific agricultural activities that meet the definition of development (i.e. roads, utilities, irrigation, or existing flood protection).
- Establishes setbacks from the OHWM for structures and approval criteria for specific uses.
- Requires incorporation of GMA critical areas.



Columbia River Gorge National Scenic Area (CRGNA)

- Applies in the federally designated scenic area.
- Requires specific planning and zoning designations for certain agricultural lands.
- Establishes county review authority and detailed use criteria for new activities in designated agricultural lands.
- Allows continued use of established agricultural lands in all designations except “Open Space” without review by the county.
- Includes additional policies for wetlands, certain habitats, and waterways that overlay GMA critical areas policies.



Clark County Comprehensive Plan

- Designates agricultural resource lands as required under the GMA.
- Establishes an equestrian overlay area with specific policies for equestrian uses.
- Incorporates the Shoreline Master Program, implementing the SMA.
- Establishes policies to meet GMA critical area requirements.
- States that agricultural activities performed in accordance with county, state, and federal laws should not be considered public nuisances nor be subject to legal action as public nuisances.



Regulatory Summary



Applicable Codes – Clark County Code Title 40

• **40.440 Habitat Conservation**

- Meets GMA requirements to designate and protect Fish and Wildlife Habitat Conservation Areas.
- Designates Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS).
- Includes performance standards for protecting existing functions and values of PHS, including avoidance and minimization thresholds and compensatory mitigation measures.
- Relies on assessment of site conditions and application of WDFW management recommendations by qualified professionals (generally county biologists and professionals retained by the land owner).
- Provides for specific exemptions and permitting pathways.



Applicable Codes – Clark County Code Title 40

• **40.450 Wetland Protection**

- Meets GMA requirements to designate and protect wetlands.
- Designates wetlands and wetland buffers.
- Includes performance standards for protecting existing functions and values of wetlands and wetland buffers, including avoidance and minimization thresholds and compensatory mitigation measures.
- Relies on assessment of site conditions and application of US Army Corps of Engineers and Ecology protocols by qualified professionals (generally county biologists and professionals retained by the land owner).
- Provides for specific exemptions and permitting pathways.



Applicable Codes – Clark County Code Title 40

• **40.460 Shoreline Master Program**

- Meets SMA requirements.
- Designates shoreline streams and lakes.
- Defines shoreline setbacks and use criteria for agriculture.
- Relies on determination of the Ordinary High Water Mark by a qualified professional following Ecology protocol.
- Incorporates designation and protection standards from GMA critical areas ordinances and replaces critical area permitting pathways within Shoreline areas.
- Provides for permitting pathways for regulated uses and developments.
- Includes direct oversight by Ecology and appeals go to a state board.



Applicable Codes – Clark County Code Title 40

- **40.240 Columbia River Gorge National Scenic Area Districts**
 - Implements federal CRGNSA regulations.
 - Overlays with, and does not replace, other county codes.
 - Contains specific standards for allowed uses in agricultural designations.
 - Different definitions and additional standards for various GMA critical areas; where there are conflicts, the most restrictive standards apply.
 - Provides for specific exemptions and permitting pathways.
 - Appeals go to the Gorge Commission.



Existing/Ongoing Agricultural Activities

- **Outside Shoreline Areas**

- Exempt in wetlands and wetland buffers.
- Exempt in Priority Habitat and Species Areas, EXCEPT Riparian Habitat.
- Permitted outright in other CRGSA General Management Areas.

- **Inside Shoreline Areas.**

- Not considered “development” (e.g. the SMP is not applicable).



Existing/Ongoing Agricultural Activities

- **Inside Riparian Habitat Located Outside Shoreline Areas.**
 - Default Option: Prescriptive standards with set zones
 - Inner Zone for habitat protection and restoration only
 - Outer Zone allows agricultural activities that do not reduce existing habitat functions
 - Custom Plan Option
 - Apply appropriate Best Management Practices following NRCS guidelines
 - Assistance available from the Clark Conservation District
 - Record an affidavit that certifies that a plan is in place
 - No county review



Changes to activities within existing agricultural footprints

• **Outside Shoreline Areas**

- Exempt in wetlands and wetland buffers.
- Exempt in Priority Habitat and Species Areas, EXCEPT Riparian Habitat as long as existing habitat functions are maintained. New structures or removal of woody vegetation may be regulated.
- Permitted outright in other CRGSA General Management Areas Except new cultivation for more than a home garden (includes lands fallow for more than 5 years).

• **Inside Shoreline Areas**

- Activities such as maintenance or construction of roads, or structures, irrigation ditches or structures, flood hazard structures, grading to improve drainage, etc. are regulated.



Changes to activities within existing agricultural footprints

- **Inside Riparian Habitat Located Outside Shoreline Areas.**

- Default Option: Outer Zone allows agricultural activities that do not reduce existing habitat functions. Changes that reduce habitat functions are regulated (i.e. permanent loss of existing vegetation).
- Custom Plan Option: Any activity that complies with BMPs identified in the plan is allowed (plans can be modified as needed).



Expansion/new activities

- **New activities are considered new development, a change of use; or conversion from some other use.**
 - Generally subject to the same standards and procedures as all other new development.
 - The Shoreline Master Program and CRGNA Code have specific use standards and approval criteria for agricultural activities.



Reviews and Permits

- **Wetlands and Habitat**

- Determinations – identification and assessment of wetlands, wetland buffers, and PHS on the site. Required for non-exempt actions.
- Permits – Type I or II process depending on the type of impact. “Expedited” permits are available for activities that are regulated, but do not require mitigation.

- **Shoreline Areas**

- OHWM Determination – location of the OHWM on the site. Required for most Shoreline Exemptions and all Shoreline Permits.
- Wetland and Habitat Review – Required as needed, note that all Shoreline Areas, except “associated wetlands” are also Riparian Habitat by definition. May be waived if there are no identifiable impacts.



Reviews and Permits

- **Shoreline Areas (cont.)**

- Shoreline Statement of Exemption (Exempt from the substantial development permit process)
 - Type I Process
 - May require Wetland and Habitat Review
 - Can be conditioned or require mitigation
- Substantial Development Permit
 - Type II process triggers the State Environmental Policy Act (SEPA)
 - Usually requires Wetland and Habitat Review
 - Will include conditions and mitigation



Reviews and Permits

- **Shoreline Areas (cont.)**

- Shoreline Conditional Use Permit and Shoreline Variance
 - Type III process, the county makes a recommendation to Ecology
 - Additional approval criteria (more restrictive standards)
 - Usually require Wetland and Habitat Review
 - Will include conditions and mitigation

- **Gorge Permits**

- Expedited Review – Certain developments qualify for an accelerated Type II process (shorter timeline)
- Standard Review – Type II process
- Variance – For numerical standards only, typed based on standard procedures (e.g. amount of variance requested)
- All decisions are sent to the Forest Service and Gorge Commission



Critical Areas Ordinance Update

- **Wetland and Habitat code updates (2022)**

- Changes are required to meet current GMA standards for designating and protecting critical areas used or agriculture.
- All existing/ongoing agricultural activities that are conducted in accordance with Best Management Practices (BMPs) contained in the latest edition of the USDA Natural Resources Conservation Service (NRCS) Field Office Technical Guide (FOTG) are proposed to be exempt.
- Proposal also allows for exemption with a voluntary farm plan developed with assistance from the Conservation District or a Stewardship Plan developed (for a fee) with the County.
- Proposes an optional Statement of Exemption process (for a fee) for other activities that are not otherwise exempt, but do not require mitigation.



Thank you!

- Comments and questions
- Clark County Public Service Center
- 1300 Franklin Street • PO Box 9810
- Vancouver, WA 98666-9810
- Wetland and Habitat questions: WetlandHabitatReview@clark.wa.gov
- Shoreline and Gorge questions: landuse@clark.wa.gov

