Lacamas Creek Partnership

Washington State Department of Ecology Q&A Lacamas Watershed Council – May 5, 2021



How have you partnered with other civic action groups like ours?

Ecology has collaborated with civic action groups, non-profits, watershed alliances, and private landowners for past projects similar to the Lacamas Creek study. We have worked with these groups to develop a Water Cleanup Plans and discuss how to implement water quality best management practices (BMPs) for septic systems, agriculture, stormwater, and habitat restoration.

A recent example in Clark County is Ecology collaboration with partners in the East Fork Lewis River (EFLR) Watershed. Since the EFLR Partnership kicked off in 2018, over 50 different partners from 30 different organizations have engaged in EFLR Partnership activities. These activities included multiple EFLR Partnership meetings to gather local knowledge about resources and programs in the area, smaller bacteria and temperature workgroups to review results, and a targeted meeting to discuss private landowner technical assistance needs in Clark County. Multiple Pollution Identification and Correction (PIC) program meetings have been coordinated to support on-the-ground implementation. Ecology also hosted a grant project workshop and a water quality public town hall.

In the FAQ, it says that "... the Lacamas Creek Partnership will work collaboratively with local, state, federal, and tribal governments, non-profits, watershed groups, and private landowners to develop and implement a Water Cleanup Plan, focused on implementation" How can the LWC become an active and informed partner to the Partnership? Can we have representation at the table?

We definitely encourage the LWC to become an engaged partner and have representation in the Lacamas Creek Partnership. Once the first stages of monitoring and source assessment are complete, the Partnership will start meeting regularly when implementation planning begins. It would be important to have LWC at the table to discuss plans for implementation and outreach and provide feedback on the developing Water Cleanup plan.

Do you have any suggestions for how we can complement the work of Ecology?

If you are interested in contributing to the water cleanup effort, you can get involved in the following ways:

- Education and outreach Help your neighbor understand what they can do to protect clean water.
- **Support** Donate or vote to support your local environmental programs.
- Septic systems Complete regular septic system inspections, maintenance, and repair.

- **Agriculture** Implement manure management best management practices for livestock and horses, and implement fences, riparian buffers, and off-stream watering to keep animals out of the river.
- **Restoration** Plant trees, protect wetlands, and improve habitat in your backyard.
- Lawn care Be mindful about fertilizer application
- **Pet waste** Pick up your dog.
- **Participate** Be engaged and aware of the efforts of implementation planning for the Water Cleanup Plan and lake management work.

It is also encouraging that the LWC already communicates with landowners and has an established newsletter and webpage. These platforms can be a great way to get the word out about water quality conditions of the lake and watershed and provide information to encourage best management practices. The Council is also welcome to share materials created for this study on the LWC webpage.

The newsletter and webpage could also provide information about local workshops hosted by Clark County Conservation District (CD), which can be found on the <u>Clark CD website</u>¹. Clark CD hosts a series of pre-recorded and live webinars with different themes such as livestock manure management and watershed stewardship. Getting the word out about the webinars would be incredibly useful to spread awareness in the watershed about potential water quality challenges and how to solve those challenges. I encourage you to reach out to Ashley Smithers (Resource specialist with Clark CD; <u>asmithers@clarkcd.org</u>) and Samantha Frundle (Livestock Conservation Planner; <u>sfrundle@clarkcd.org</u>) to learn more about these webinars and the CD's involvement in the Poop Smart Clark program.

Another way that you can get involved in the watershed is to help Ecology be the eyes and ears for water quality. If you see something, say something! Reports can be made anonymous or confidential by email (<u>swroerts@ecy.wa.gov</u>), by an <u>online form</u>², or over the phone (360-407-6300). Things you should report include direct discharges to water, spills, and other environmental hazards you observe.

¹ https://clarkcd.org/workshops

² <u>http://www.ecy.wa.gov/reportaproblem.html</u>



Which watershed does the area directly adjacent to Lacamas Lake and Round Lake belong to? Aren't those lakes just wider parts of Lacamas Creek going down to the Washougal River? The Lacamas Creek watershed encompasses the outlet of Lacamas Lake, which is considered Lacamas Creek, and the downstream area where Lacamas Creek enters the Washougal River. The map above shows the Lacamas Creek watershed outlined by the purple boundary.

The yellow boundary represents Ecology's study area, which was determined in 2010 when data was initially collected. Ecology chose to focus on portions of the watershed draining into Lacamas Creek where it enters the lake. Areas not covered by Ecology's study area are outside of our project scope, and may be incorporated into the lake management plan.

What is included in a Water Cleanup Plan?

One of the main questions Ecology tries to answer through a Water Cleanup Plan is, "how much pollution needs to be reduced to meet water quality standards." To achieve clean water, the Water Cleanup Plan addresses priority implementation areas such as septic systems, agriculture, and stormwater, and increasing riparian restoration in the watershed. For each priority implementation area, the Plan develops implementation goals, estimates the financial and technical assistance needed to meet those goals, comes up with an implementation timeline and criteria to measure progress, and develops a plan to monitor effectiveness of

implementation. The Water Cleanup Plan also uses monitoring results and conclusions from the source assessment report to prioritize cleanup in the identified critical areas and determine the implementation needed for those critical areas.

Devan Rostorfer recently wrote a draft Water Cleanup Plan in March 2021 for the EF Lewis River Watershed. If you are interested in seeing an example of a similar plan that will be written for the Lacamas Creek watershed, the EF Lewis River Water Cleanup Plan is located on the <u>EF</u> Lewis River Watershed Partnership webpage³

What is the difference between step 1 (monitoring) and step 2 (source assessment)?

Monitoring is a general term that describes the stage of data collection. Monitoring involves developing a Quality Assurance Project Plan to outline a data collection plan, collecting samples, surveying the land uses in the area and documenting notes related to water quality impacts. For this study, monitoring was conducted in 2010-11 for the initial data collection and the bacteria monitoring for this summer of 2021 will be the final data collection for this study.

The source assessment stage for this study focuses on the technical analysis of the collected data. A source assessment is a comprehensive evaluation of the sources of pollution and will identify critical areas for water quality, estimate pollutant reductions needed, and identify priority planting areas to increase riparian shade. The source assessment study serves as a standalone report of watershed health and provides the foundation for the future Lacamas Creek Water Cleanup Plan by identifying the critical areas that need focused water cleanup work.

How do we get total phosphorus standards set for the watershed? Who has to request that? Currently, Washington State does not set total phosphorus standards. Any new water quality standard development would have to be done by Ecology's Assessment and Standards Program, which would require a rule making process.

In absence of a set criteria, the EPA has established a recommended limit of 0.05 mg/L for total phosphates in streams that enter lakes. These recommendations can at least help guide us in determining the threshold for when a waterbody is eutrophic.

Also, water quality issues caused by excess total phosphorus may first be detected by more sensitive criteria that are already in place. For example, dissolved oxygen and bacteria are usually associated with similar impacts that arise from high phosphorus levels, thus Ecology typically uses dissolved oxygen impairments to determine if there are nutrient challenges. The criteria for these parameters are already designed to be reliable indicators of trophic health.

For this study, the violations of dissolved oxygen, bacteria, temperature, and pH criteria resulted in 303(d) listings and the development of this planned source assessment study. This study will examine the role of nutrients as well as other key facilitating parameters such as

³ https://www.ezview.wa.gov/site/alias__1962/37305/east_fork_lewis_river_partnership.aspx

dissolved oxygen, temperature, and bacteria when evaluating the overall health of this watershed.

A recent news article stated, "Lacamas Creek and its tributaries . . . they currently do not meet Washington State's water quality standards for multiple parameters (including) bacteria, dissolved oxygen, pH and temperature." Exactly what WQ standards are not in compliance and by how much are they out of compliance? Is there a report you could point us to?

This is exactly what we hope to address in our future source assessment report. We want to evaluate the current water quality impairments and understand how much the waterbody is exceeding those standards. The source assessment will provide this summary as well as an updated bacteria assessment with new bacteria results collected in 2021.

Slide 7 in the Lacamas Creek Source Assessment presentation⁴ lists Washington State's water quality standards for bacteria, temperature, dissolved oxygen and pH. Slide 8 shows the waterbodies that are currently not meeting those standards. Ecology establishes these water quality criteria to protect the specific beneficial uses provided by Lacamas Creek, which includes recreational use and aquatic life uses. Additionally, since Lacamas Creek is a major source of surface water to the Lake, it is important that these standards are met.

If you are interested in exploring the status of the water quality standard compliance in watershed, Ecology's <u>Water Quality Atlas</u>⁵ provides a visual map that displays the waterbodies that are not meeting water quality standards. By clicking on a waterbody, a pop-up window lists the parameters that are out of compliance and provides a condensed report of how this was determined.

The news article also said "The state has studied water quality in Lacamas Creek before — monitoring 30 sites for water quality in 2010 and 2011." Can we see the report with that information?

Again, this is exactly the report that we hope to deliver! After the initial monitoring effort in 2010-11, an assessment of the surface water quality conditions was not completed due to schedule limitations and staff turnover. Sheelagh McCarthy has done an initial review of the preliminary bacteria results, which was presented at the LWC meeting. Yet, a groundwater assessment was completed to determine how groundwater influences stream flows and water quality in Lacamas Creek. You can find the 2013 *Surface-Water/Groundwater Interactions and Near-Stream Groundwater Quality report* at Ecology's Publication website⁶ and on the Lacamas Creek Partnership website.

⁴https://www.ezview.wa.gov/Portals/_1962/images/LacamasPartnership/Lacamas%20Creek%20Source%20Assess ment_%20May%205%202021.pdf

⁵ https://apps.ecology.wa.gov/waterqualityatlas/wqa/

⁶ https://apps.ecology.wa.gov/publications/SummaryPages/1303015.html

How is Ecology planning to share data through this project to keep all the stakeholders up to date and in the loop? Will data be shared as soon as it flows in/available or only after the project's time period is over/complete?

As we collect more data, a webpage created with Tableau software will be available to provide a virtual platform to show the preliminary bacteria results. This page will display interactive maps, charts and time series plots of the bacteria data as well as a direct link to download the data. Updates to this page will be ongoing throughout the monitoring, and the page will likely be updated once a month. A link to that webpage will be posted on the Lacamas Creek partnership page. This Tableau page will later be integrated into an ArcGIS StoryMap that will communicate the results of the source assessment.

In addition to this study's monitoring efforts, Ecology's Ambient Monitoring Program lead by the Freshwater Monitoring Unit (FMU) has collected monthly samples and water quality measurements since October 2020 at a site located right before Lacamas Creek enters Lacamas Lake on Goodwin Road. The monthly data is available for viewing on FMU's Freshwater Index Network webpage⁷. FMU typically updates 2-3 months after sampling.

What communication system will be used and how to ensure smooth information flow between stakeholders?

All information related to the Lacamas Creek Source Assessment and future Water Cleanup Plan will be available on the <u>Lacamas Creek Partnership for Clean Water webpage</u>⁸. This webpage will serve as a repository for meeting notes and relevant publications such as this study's Quality Assurance Project Plan (QAPP), the groundwater study, and a FAQ sheet, which provides a short summary of the study plan.

"If the public observes pollution issues, they are encouraged to submit a report online" (From Partnership website)–What type of pollution issues should the public look out for? What type of reports are you looking for/would be useful?

We encourage you to report suspicious discharges or spills (i.e. runoff, illicit discharge) to any waters of the state. Examples and pictures of reported issues are shown in slides 26-32 of the Lacamas Creek Source Assessment presentation. Here are examples of pollution issues that have been reported in both rural and urban areas:

- Evidence of polluted runoff entering a waterbody. Polluted runoff issues exist in the urban areas (e.g. muddy runoff from construction sites to stormwater drains) or rural areas (e.g. muddy runoff from agricultural fields entering stream).
- Evidence of illicit discharge of pollution to a waterbody. (e.g. suspicious hose discharging to a stream, pipe releasing toilet paper).
- Lack of erosion controls at construction sites or stream banks.

⁷https://apps.ecology.wa.gov/eim/search/SMP/RiverStreamSingleStationOverview.aspx?LocationUserIds=28I120& ResultType=RiverStreamOverviewList

⁸ www.tinyurl.com/lacamaspartnership

- Livestock with direct access to a waterbody.
- Manure piles that are close to surface waters. There are ordinances that allow manure piles to stand in fields. But during the wet season, those manure piles should not be close to surface water and should either be covered with a tarp or kept in a manure management facility.
- Manure application in fields before or during heavy rainfall. Typically, dry season applications are within ordinance, but the likelihood of polluted runoff from those fields is high from November-April.

Reports can be made anonymous or confidential by email (<u>swroerts@ecy.wa.gov</u>), by an <u>online</u> <u>form</u>⁹, or over the phone (360-407-6300). Pictures are often a useful way to document the issue.

What are some innovative or already existing systems/resources/tools the Partnership is planning on using to ensure success of this project? (Project management tools; nanobubblers; stream bank erosion control; adding water filtering wetlands/biofilters along creek, etc).

The Water Cleanup Plan will recommend multiple tools and resources to ensure water quality improvement in the watershed. The Plan will provide more targeted and focused tools specific for the Lacamas Creek watershed. The following are a few, general examples of tools for water quality improvement:

- **Financial and technical tools provided by existing programs** Pollution Identification and Correction (PIC) Programs, such as Poop Smart Clark, provide a comprehensive framework to find and remove sources of bacteria in watersheds. PIC programs often include monitoring, nonpoint source investigation, financial and technical assistance, public education and outreach, and implementation of water quality BMPs for source correction. Priorities for PIC programs include finding and fixing septic and agricultural sources of pollution, and assisting landowners with implementation of septic and agricultural BMPs.
- Outreach to promote Best Management Practices (BMPs)- Partners involved in the Lacamas Creek Partnership including Clark County, Washington State University (WSU) Extension, Washington Watershed Alliance, Clark CD, USDA Natural Resource Conservation Service (NRCS), and Ecology all provide forms of outreach to promote BMPs. For example, Both Clark CD and the WSU Extension Small Acreage program provide educational workshops and other outreach to residents on mud and manure management, fencing and pasture management, and other water quality topics unique to rural properties. Clark County Public Works and WSU Extension collaborate to host Well and Septic Workshops to teach private homeowners how to self-inspect their own septic systems. Clark CD and Ecology provide technical assistance to landowners with natural resource, livestock, soil, and water issues.

⁹ <u>http://www.ecy.wa.gov/reportaproblem.html</u>

- **Riparian forest restoration projects to lower warm stream temperatures**¹⁰- This may involve restoration projects, strategic preservation and conservation of land in proximity to streams and lakes. This effort also involves outreach to private landowners bordering streams to encourage riparian restoration on private properties.
- Stream restoration and bank stabilization projects¹⁰ Stream restoration includes all instream work, such as culvert removal, channel modification or reestablishment, large woody debris and engineered logjams, and bank stabilization using any materials beyond plants.
- Support for programs that can provide financial assistance- As an example, organizations in Clark County are developing a new septic system inspection rebate program to provide septic system owners with financial assistance. This program provides reimbursements to property owners that complete certified septic system inspections and maintenance.

Will weather data be recorded as well? (Wind, sunshine/day, rain)

Yes, we will be document weather conditions during sampling to provide context for the results. Ecology will be sampling during typically dry weather during the dry season (i.e. June to October). Yet, as we enter October, early rains may bring what is known as the first flush of runoff. It's typical to see a high peak in bacteria following the first heavy rain; for example, the unmanaged or uncovered manure in the fields accumulated from over the summer will runoff from this first rain. It's important to account for any rainfall as we enter a wetter season and to account for how it could affect the bacteria results.

¹⁰ Ecology provides funding for riparian restoration and other natural resource enhancement projects through the Water Quality Combined Funding Program.