



Staff Report

March 18, 2024 Council Workshop Meeting

Lacamas Lake Treatment 2024 Scope of Work

Presenter: Steve Wall, Public Works Director

Time Estimate: 10 minutes

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BACKGROUND: The City and its partners completed the Lacamas, Round, and Fallen Leaf Lakes Management Plan in 2023. One of the outcomes and recommendations of the Lake Management Plan was to focus on a near-term strategy of treating Lacamas Lake with a chemical addition of Aluminum Sulfate ("Alum"), Phoslock, or some other proprietary chemical to strip (or sequester) the phosphorus from the water column and/or lock in the phosphorus in the sediments to limit the amount of phosphorus available for production of harmful algal blooms. This proposed near-term strategy was recommended to allow continued use of Lacamas Lake through the recreational season.

SUMMARY: There are limited suppliers and applicators in the Pacific Northwest that complete lake treatment with Alum or similar products. After researching available options, staff worked with AquaTechnex, LLC from Centralia, WA and EutroPHIX to develop the attached scope of work. The scope is currently drafted assuming one application of EutroSORB WC in 2024 in Lacamas Lake. EutroSORB WC is a proprietary aqueous blend of phosphate binding minerals that allow for rapid and permanent inactivation of phosphorus from the water column. It is typically applied via surface spray application and has an excellent safety profile with no environmental, health, personnel, or safety concerns associated with the use. EutroSORB WC would not have any water use restrictions (e.g. fishing, swimming, pets, boating) due to its chemistry and low concentrations of use. The public will be made aware of treatments and applicators typically ask that recreators give them room while on they are on the lake applying products.

Based on the recommendations in the Lake Management Plan, Lacamas Lake will be the only lake treated the first couple of years, assuming that the downstream Round Lake will also see some benefits. The intent of the Scope of Work as written is to complete one round of treatment and be able to monitor the effectiveness of chemical addition through pre- and post-monitoring and testing and monthly monitoring thereafter. However, based on conversations with AquaTechnex and EutroPHIX, based on experience in other lakes, all parties are assuming that a second application will likely be needed later in the summer, depending on the outcomes from the monitoring.



Figure 1: EutroSORB application on Kitsap Lake



Figure 2: Close-up of Boat Spray Application on Kitsap Lake

BENEFITS TO THE COMMUNITY: Near-term effective treatment of Lacamas Lake to reduce phosphorus levels and reduce the potential for harmful algal blooms.

For reference, the following link is an example of a success story of using the EutroSORB product and applying it in Kitsap Lake in Bremerton, WA.

<https://eutrophix.com/2022/04/03/case-study-restoring-water-quality-at-kitsap-lake/>

POTENTIAL CHALLENGES: Chemical treatment of Lacamas Lake does not “solve” the bigger picture, long-term need to improve water quality within the entirety of the Lacamas Creek Watershed. As discussed with Council in the past, the poor water quality within Lacamas Creek being fed by other streams within the Watershed is estimated to be approximately 80 percent of the phosphorus loading in Lacamas Lake.

Chemical treatment of the water is an option that will likely need to be continued once started. Users of the Lakes and the community at large may come to expect the benefits received from treating the Lakes. However, the long-term costs are potentially more than the City can support on our own.

There is an Aquatic Plant and Algae Management General Permit application, or Notice of Intent that is required to be filed prior to completing the work. Staff is currently working with AquaTechnex, EutroPHIX and the Department of Ecology to complete the Notice of Intent. The General Permit requires that the applicator aquatic pesticide license and that multiple notifications are provided to the public, including specific notices to shoreline property owners in advance, and on the day of, application.

BUDGET IMPACT: The total cost estimate for one application and two applications of EutroSORB WC is approximately \$73,000 and \$136,000; respectively. As discussed with Council previously, funding from the \$500,000 2023 State Budget Direct Grant (appropriation) will be used to complete at least the first two years of Lake Treatments.

RECOMMENDATION: Staff recommends placing the Lacamas Lake Treatment Contract with AquaTechnix on the April 1, 2024 Consent Agenda for Council's consideration.