

To: Lake Lawrence Steering Committee

From: Ryan Van Goethem, CLM – Limnologist & Project Lead

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Regarding: EutroSORB G and SI for internal phosphorus loading mitigation in Lake Lawrence

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Lake Lawrence deserves clean, safe, and enjoyable water for the community and wildlife it supports. Please review the following information and the product presentation for consideration in your plans to restore water quality in the lake.

Lakes impaired by internal phosphorus loading can utilize EutroSORB G and EutroSORB SI as part of a restoration program. EutroSORB G is a 10% lanthanum-modified bentonite formulation. EutroSORB SI is a novel iron-coated technology (patent pending) in a liquid formulation with 20% lanthanum content and a dry formulation with 50% lanthanum content. Lanthanum-based technologies provide many benefits for managing phosphorous in natural aquatics ecosystems due to their safety, ease of use, and effectiveness. Lanthanum has been used world-wide on 100's of waterbodies since 1990's and well-studied and evaluated in the peer-reviewed literature (references attached). Lanthanum binding to phosphate occurs across a wide pH range 4-10 in anoxic and oxic conditions, and permanently binding phosphorus as Rhabdophane/Monazite that won't re-release under expected aquatic environmental conditions (stays bound pH 3-12, anoxic/oxic) (Recht & Ghassemi 1970; Dithmer 2106a; Mucci et al. 2018; Zhi et al. 2020; Kang et al. 2022). There are no known points of failure for the potential range of conditions at Lawrence Lake.

Many local projects performed by Aquatechnex LLC utilizing EutroSORB G have case studies available. These projects are using annual partial dosing to meet water quality goals. EutroSORB SI is a new formulation that has limited case studies to date, but that will rapidly change over the coming years.

**Kitsap Lake, WA** – 250-acre lake impacted by internal P load driven HABS. Over 90% reduction of hypolimnetic phosphorus, 35% improvement in water clarity. Significant reduction in extent and severity of HABS during recreational season. <https://eutrophix.com/case-studies-news/> <https://www.bremertonwa.gov/1282/Kitsap-Lake-Algae-Control-and-Aquatic-Ve>

**Long Lake, WA** – 330-acre lake impacted by internal P load driven HABS. 70% reduction of hypolimnetic phosphorus. Significant reduction in extent and severity of HABS during recreational season. Case study handout and 2025 report available upon request.

**Moses Lake, WA** – 6,800-acre reservoir impacted with excess external and seasonal internal loading of P driving HABs with high negative economic impacts. Short-term demonstration of P sequestration to improve water quality on 1/3 of the lake. Data analysis demonstrated summer means of 50% lower phosphorus and 59% lower chlorophyll-a following EutroSORB G application relative to similar water years. <https://eutrophix.com/case-studies-news/> <https://www.walpa.org/waterline/june-2025/novel-large-scale-phosphorus-mitigation-on-moses-lake-wa/>.

If you need any additional information regarding restoration of Lawrence Lake, please contact us.

## Vendor information

EutroPHIX is a division of SePRO Corporation focused on helping restore water quality from harmful algae blooms and nutrient pollution. EutroPHIX and SePRO have over 30 years of experience in successful support of public lake and reservoir management throughout the country providing solutions and advanced technical services to manage hundreds of thousands of acres of surface water throughout the US on an annual basis. Ryan is a Limnologist & Project lead in the Western US and resides in Spokane, WA. Ryan has extensive knowledge of lakes and water quality issues in the area. Visit [www.eutrophix.com](http://www.eutrophix.com) for more information.

## Highlighted Literature References

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