

SPRING LAKE - LAKE BOARD 2025 UPDATE

July, 2025

Alum Treatment Update

An alum treatment to help control internal release of legacy phosphorus in Spring Lake has been completed this spring by SOLitude Lake Management. The application of 526,826 gallons of aluminum sulfate and 263,652 gallons of sodium aluminate (applied as a pH buffering agent) took place over a three-week period between April 28 and May 21. Early indications are encouraging as initial total phosphorus values measured are substantially lower and water transparency (clarity) has increased by 2-3 times as compared to pre-treatment values. The true test will be in late summer/early fall when algae growth is typically at its seasonal maximum growth and internal loading (which fuels algae growth) is historically at its seasonal peak. A more detailed data report will be presented this fall on the Spring Lake - Lake Board's website (www.springlakeboard.org).

Watershed Management Plan Update

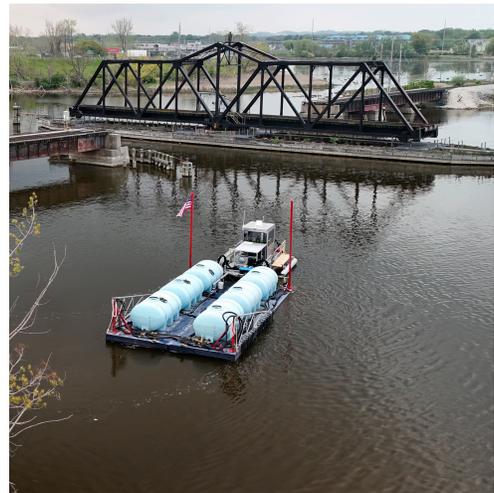
An extensive watershed management plan was prepared for the Spring Lake watershed in 2001. The original plan was developed to satisfy Clean Michigan Initiative (CMI) rules for an approvable watershed management plan to address nonpoint source pollutants. An approvable plan is eligible for Michigan Department of Environment, Great Lakes, & Energy (EGLE) grant funding under Section 8808 of Part 88 of Michigan's Natural Resources and Environmental Protection Act. A summary of this report can be found in an understandable format here:

<https://notebooklm.google.com/notebook/3ef90a32-4851-491f-bbed-0378471b03d8/audio>

An update to the 2001 plan has been proposed which would make the plan approvable for federal grant funding under Section 319 of the Clean Water Act. This undertaking will see the plan conform to a nine-element format as outlined by the US Environmental Protection Agency (EPA).



Alum treatment dissipating in water.



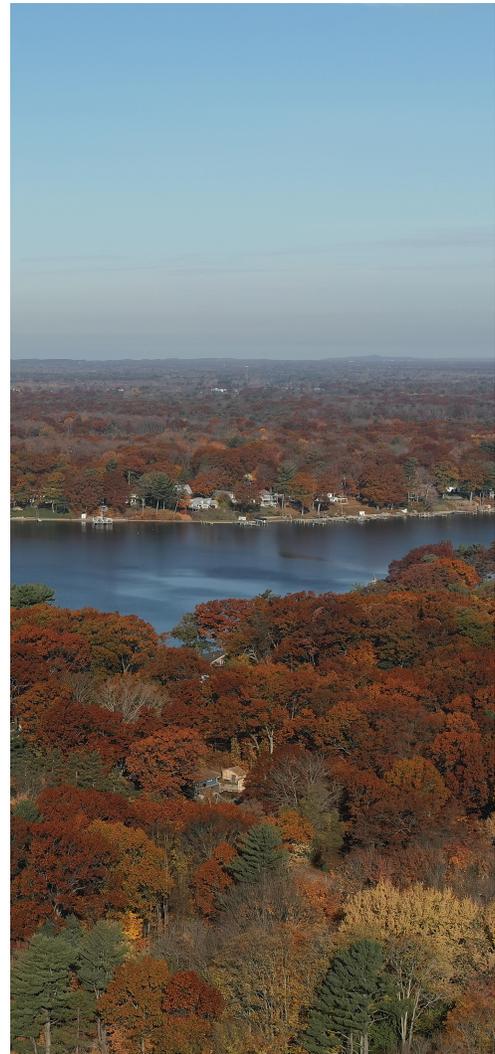
Alum barge.

In addition to updating the original plan with a quarter-century of precipitation data, land-use changes, and other watershed characteristics, a primary focus of this update will be the estimation of nutrient loads and load reduction goals using a nonpoint source pollution model such as the EPA's Pollutant Load Estimation Tool (PLET). These load estimates and reduction goals, alongside an associated quality assurance project plan (QAPP) and long-term monitoring plan, are essential to meeting the nine elements of a Section 319 approvable watershed management plan.

Data used in a pollutant estimation model must be collected via a comprehensive field inventory, defined by EGLE as "an on-the-ground inspection of an aquatic system, its riparian zone, or the upland portions of the watershed directly contributing runoff or interflow." EGLE must approve a field inventory Quality Assurance Project Plan (QAPP) before data may be collected. The aim of the field inventory will be to collect data associated with the following nonpoint pollutant sources: stream crossings, road runoff, gully erosion, inadequate riparian buffer, streambank erosion, livestock access, agricultural runoff, and tile outlets.

Work items and costs for the update have been divided into eight sections: QAPP development, nonpoint source field inventory, updating watershed characteristics, lab costs for sampling, PLET modeling, stakeholder engagement, Best Management Practice (BMP) implementation and monitoring estimates, and project management.

Altogether this labor-intensive process is estimated to cost up to \$120,000. However, the Ottawa Conservation District is available to complete several of the component work items needed to update the plan at reduced cost. The Spring Lake - Lake Board is reaching out to additional stakeholders and interested parties, such as the Lower Grand River Organization of Watersheds (LGROW), Grand Valley State University, and Muskegon County Water Resources Commission to solicit funding and optimize the use of existing funds.



Scan the QR code to access the Spring Lake - Lake Board website.