

2025 Greene Acres Property Owners Association Lake Water Quality Strategy

Objective: To preserve Greene Acres' lake for recreational use by supporting the lake's overall health and preventing, monitoring, and mitigating health and safety risks associated with E. coli and cyanobacteria (blue-green algae).

Prevention	Monitoring	Mitigation
<p>Septic:</p> <ul style="list-style-type: none"> Educate homeowners about septic cleaning. Consider changes to GAPOA governing documents to require periodic cleaning, particularly for lakefront homeowners and homeowners close to feeder streams. Apply for septic funding grant through Culpeper Soil and Water Conservation District to demonstrate how to obtain funding. Explore bulk discounts for septic pumping. For example, schedule pumping for GAPOA bathhouse and other community members' septic systems. Provide dye for lakefront homeowners and homeowners along feeding streams to test septic systems for leaks. Test multiple points of the lake for E.Coli after a hard rain to pinpoint potential septic leaks. <p>Geese:</p> <ul style="list-style-type: none"> Control goose population through permitted egg depredation during nesting season. Explore supplemental contract for cleaning goose feces from the beach and platform during the swimming season. <p>Education:</p> <ul style="list-style-type: none"> Educate homeowners regarding the proper use of lawn chemicals and fertilizers. Conduct community webinars providing water quality education, including the details of GAPOA's monitoring program and individual risk assessment. 	<p>Testing:</p> <ul style="list-style-type: none"> Conduct full water column and algae ID testing with SePRO Lab in February or March 2025, measuring pH, phosphorus, and nitrogen levels to assess the need for phosphorous management and estimate cost. High phosphorous levels predispose the lake to algae growth in the summer months. Conduct GAPOA-managed weekly E. Coli and algae testing and public reporting from May 1 through September 30 using methods adopted during 2024 swimming season. (R cards for E. Coli and rapid algae tests.) Conduct monthly phosphorous testing with SePRO Lab from May to September. Conduct supplemental Lab Algae ID testing with SePRO Lab during the swimming season to identify algae types and measure prevalence as the Board deems necessary based on conditions, including visual inspection and weekly testing results. 	<p>Phosphorous Management:</p> <ul style="list-style-type: none"> Treat the lake with EutroSORB WC, a phosphorus management substance, if February/March water column testing indicates a need for it to reduce free reactive phosphorus levels. To do this would require (1) fundraising within the GAPOA community to raise dedicated funds for treatment, and (2) working with a licensed applicator. Jon Kaufman in Crozet may be a low-cost alternative to larger lake management companies like SOLitude Lake Management.

