

## **ATTACHMENT A**

The regulations to be adopted will serve to protect the environment, water quality and the public health, safety and welfare by improving the quality of discharges of wastewater and will have no significant adverse effects upon the environment. The regulations serve to implement the specific wastewater control standards mandated by the Legislature in ECL §43-0110 and §17-1709. Such rules and regulations may be more stringent than rules and regulations adopted by the department (DEC). ECL § 43-0107(8) provides that the Commission shall have the power to adopt, amend and repeal rules and regulations, consistent with ECL Article 43, as it deems necessary to administer Article 43, and “to do any and all things necessary or convenient to carry out the purpose and policies of this article and to exercise all powers granted by law.”

The procedural regulations serve to guide the process and will not have any adverse environmental impact. The principal areas of environmental concern relating to wastewater management within the Lake George watershed are twofold:

- 1) Since the lake is used as a drinking water supply and for contact recreation, wastewater systems should be designed, constructed, operated and maintained to treat effluent sufficiently to avoid a discharge of pathogenic organisms into the lake or its tributaries.
- 2) Nutrients contained in wastewater, especially phosphorous, could have a long-term fertilizing effect on the lake. Wastewater systems should be designed, constructed, operated, and maintained to maximize nutrient removal.

Protecting Lake George’s water quality from nutrient and bacterial pollution from improperly functioning septic systems is of paramount importance. The program and standards described in this Statement are designed to help ensure that septic systems in the lake’s Critical

Environmental Area are functioning properly, and that new systems meet standards designed to improve the removal of phosphorus and nitrogen.

With guidance from regional subject matter experts and the Commission, the review of existing literature was focused on eleven (11) studies of particular relevance to Lake George and as identified through review of readily available resources. The literature reviewed covers nearly a 40-year span from 1981 to 2020, and includes research from academia, the public sector, and private sector. Findings from the literature suggest the efficacy of septic systems is highly variable depending on system maintenance, design, and local environmental factors such as soil type and proximity to groundwater or vadose zone depth.

In addition to the detailed literature review, the Commission conducted a comprehensive Geographic Information Systems review of the population of septic systems within proximity to Lake George and its tributaries. Research revealed that the geology and topography of the near-shore lands surrounding the lake can have significant limitations on the effectiveness of septic systems. Limiting factors such as shallow depth to bedrock or water table, poorly drained and excessively drained soils and steep slopes affect the treatment efficiency of septic effluent prior to reaching groundwater or a surface water body. The purpose of this analysis was to obtain a count of the total number of privately owned onsite wastewater treatment systems in the Lake George Park, their proximity to critical environmental resources and limiting factors for effectiveness.

To help inform background, need and concepts for a potential Lake George septic system inspection program, the Commission researched all identified lakes that maintain such programs. The majority of these programs are active in central New York (Finger Lakes region), with the majority of those waterbodies having a recurrent, five year inspection of all septic systems within

proximity of the lake. The NYC Watershed Program manages a broad and extensive septic system inspection program in the southeast (Catskill area) of the state as part of their drinking water supply program. Locally, the Towns of Queensbury and Bolton have maintained septic system inspection programs on property transfers for the past few years, which have been instrumental in providing a general understanding of local conditions and potential expectations for a Lake. The Commission spoke with the managers of those programs, to help discern the reasoning behind the programs, any specific driving factors, what founding documents they maintained, how they were funded, and what their findings are. Several of the programs have been in place for many years, with a few programs running for more than 20 years. The founding reason behind every program researched was to protect the lake and its water quality and clarity. Additional stated reasons included public health of the homeowners and neighbors, beach closures due to e-coli bacteria spikes, and prevention of Harmful Algae Blooms.

With regard to social and economic impacts, the regulations do require the payment of fees for annual inspections and operating and construction permits. The cost of this program is not seen as unduly burdensome on property owners in the program inspection area. LGPC analysis of property tax rates and property values in the inspection area reveals that the proposed residential annual fee of \$50 represents less than one half of one percent (0.005) of a typical annual tax bill for these properties. Although some costs will be necessary, the regulations will have a positive effect on Lake George in that they will improve the water quality of Lake George and thereby ensure the preservation of Lake George as a valued and treasured resource for those who reside in or visit Lake George Park.

In summary, by setting design standards for new systems and a review process for all new systems and existing systems within 500 feet of the lake at 100 feet of DEC regulated

streams, implementation of the regulations will improve the quality of discharges from existing facilities and prevent pollution from new facilities in Lake George Park. The Commission has taken a significantly hard look at the environmental consequences of the regulations, and finds there is no significant impact.