STATE ENVIRONMENTAL QUALITY REVIEW
STATEMENT OF FINDINGS
OF
LAKE GEORGE PARK COMMISSION
FOR
THE LAKE GEORGE SONAR® DEMONSTRATION PROJECT

JUNE 29, 2001

Pursuant to Article 8 of the State Environmental Quality Review Act (SEQRA) of the Environmental Conservation Law (ECL) and 6 NYCRR Part 617, the Lake George Park Commission (the Commission) makes the following findings:

NAME OF ACTION:

Lake George Sonar® Demonstration Project

DESCRIPTION OF ACTION:

Treatment of four locations comprising approximately 36 acres of Lake George (total lake surface approximately 28,000 acres) with Sonar® (fluridone), an aquatic herbicide, for Eurasian Watermilfoil control. The project will encompass an evaluation of Sonar® efficacy and impacts for incorporation into a comprehensive program of Eurasian Watermilfoil management.

DATE FINAL EIS FILED:

The Final Supplemental Environmental Impact Statement was accepted on June 19, 2001.

BACKGROUND:

This findings statement is issued in accordance with the State Environmental Quality Review Act (SEQRA) and 6NYCRR 617, SEQRA implementing regulations. A Positive Declaration for the project was filed on March 5, 2001 and published in the *Environmental Notice Bulletin* on March 14, 2001. The Positive Declaration identified the following areas of environmental concern: potential impacts of fluridone on aquatic fauna; the potential impacts of fluridone on Eurasian Watermilfoil; the potential impacts of fluridone on non-target plant species including rare, threatened or endangered species; the potential impacts of fluridone on potable water supplies and human health; the potential impacts of fluridone on general water quality; the potential impact of fluridone on recreational pursuits and economic stability; and the potential impact of fluridone on aesthetics and human perceptions.

A Final Supplemental Environmental Impact Statement for the Lake George Sonar® Demonstration Project was adopted on June 19, 2001 by the Lake George Park Commission, the Lead Agency. A Generic Environmental Impact Statement for the use of Sonar® in New York State was accepted by the New York State Department of Environmental Conservation on January 10, 1995.

FACTS AND CONCLUSIONS SUPPORTING THIS DETERMINATION:

Eurasian watermilfoil (*Myriophyllum spicatum*) was first detected in Lake George, New York in 1985 and has expanded to 136 known sites in 2000, 28 of which are considered to harbor dense growths. Displacement of the native community by Eurasian watermilfoil reduces biodiversity and habitat quality for a wide variety of water-dependent fauna. Dense growths of Eurasian watermilfoil would, if left unchecked, significantly affect the local and regional economy, impact recreational use, diminish property values and alter the essential natural character of Lake George, a resource of national recognition and importance.

Eurasian watermilfoil management actions to date in Lake George include an annual program of hand harvesting of low density growths, suction harvesting of small, low to moderate density growths, and covering of small but very dense growths with bottom barriers. These efforts are successful to a point and will be continued. A technique for controlling larger areas (>0.5 acre) of moderate to high density Eurasian watermilfoil growths is currently lacking for Lake George, and is needed to augment the ongoing physical control program. A review of available techniques indicates that treatment of infested areas with the herbicide Sonar® (with fluridone as the active ingredient) is an appropriate choice for larger areas of moderate to high density Eurasian watermilfoil growths, subject to a demonstration of Sonar®'s utility under conditions presented at Lake George.

Advantages of fluridone include minimal impacts on non-target organisms and the potential for complete eradication, while the primary disadvantage is the need to prolong exposure of the target areas despite significant water exchange. The Sonar® Demonstration Project employs

special “sequestration curtains” in an experimental design aimed at retaining Sonar® concentrations on the treatment areas for sufficient duration to control Eurasian watermilfoil.

A Generic (Programmatic) Environmental Impact Statement for the use of fluridone was prepared for the New York State Department of Environmental Conservation’s decision to register Sonar® for use in New York in 1995. The report indicates substantial potential for this herbicide to effectively control Eurasian watermilfoil in waters of New York State with minimal adverse impacts to non-target organisms and uses. The Supplemental Environmental Impact Statement for the Lake George Sonar® Demonstration Project evaluated alternative Eurasian watermilfoil control methods and the potential for site specific environmental impacts at Lake George.

Among the alternatives for Eurasian watermilfoil control, drawdown is not feasible for reasons of outlet limitations and problems with timely refill of the lake. Dredging is very expensive and suffers from technical limitations in Lake George. Mechanical harvesting could spread Eurasian watermilfoil to other parts of the lake, and would not eradicate the plant from target areas. Other chemicals are either not as effective as fluridone or have restrictions which limit use in potable water supplies. Dyes would have to significantly reduce water clarity to be effective in Lake George, and it would be logistically difficult to keep surface covers in place for a sufficient period of time. Grass carp are likely to eat many native plants before consuming Eurasian watermilfoil, potentially accelerating Eurasian watermilfoil expansion. Grass carp are also known to induce algal blooms in lakes where they effectively control rooted plants. The Eurasian watermilfoil weevil and other herbivorous insects are still largely experimental techniques and are very expensive on an areal basis. This approach has yet to provide widespread control in a large lake after stocking, and no control of Eurasian watermilfoil by natural populations is expected before considerably greater Eurasian watermilfoil dominance occurs. There are no viable Eurasian watermilfoil pathogens currently available. Hand harvesting and suction harvesting as employed for more than a decade at Lake George are effective at small to moderate density areas and will continue. Bottom barriers effectively control small dense growths of Eurasian watermilfoil but are non-selective and areas devoid of vegetation resulting from this process are susceptible to re-infestation by Eurasian watermilfoil.

Non-Target Plants

Maintenance of a healthy native plant assemblage is essential to the environmental health of Lake George and to the preservation of its superior water quality. Restoration of the native community where Eurasian watermilfoil has become dominant requires techniques which are suitable for the selective management of moderate to high density watermilfoil growths. The list of submersed vascular plants known from Lake George includes 48 species, with only Eurasian watermilfoil and curlyleaf pondweed as introduced species. Two non-vascular species are also listed, the macro algae *Chara* and *Nitella*.

The potential impacts of milfoil on native plant communities and a discussion of the no action alternative is presented in the GEIS. The GEIS reviews the available information on fluridone

impacts on non-target plants. The selection of the preferred alternative in this FSEIS is consistent with the findings and conclusions of the GEIS. The project and the program overall is intended to restore native plant communities and reduce impacts associated with an invasive species.

The only anticipated major impact of fluridone application is the elimination of Eurasian watermilfoil in the treated areas. There could be some localized and largely temporary impact on native plant species, as there is limited documentation of effects on many of the submersed plants of Lake George. However, re-establishment of a native assemblage in areas currently dominated by Eurasian watermilfoil is expected within several months to a year, primarily by seed germination.

Rare, Threaten, and Endangered Plants,

Six species of submergent aquatic plants found in Lake George are listed on the New York list of rare, threatened or endangered native plants. The protected plants listed for Lake George include *Isoetes lacustris* (aka *I. macrospora*), *Myriophyllum alterniflorum*, *Najas gaudalupensis*, *Potamogeton alpinus*, *Megalodonta Beckii* (aka *Bidens Beckii*) and *Subularia aquatica*. All but *Potamogeton alpinus* are considered to be locally abundant in Lake George and widespread within the lake. Only *Najas gaudalupensis* is known to be susceptible to fluridone.

The overall populations of non-target species, including the protected plants, are not at risk from the proposed treatments. There is a risk of temporary damage within the small treatment areas, and this program will help elucidate the level of risk and shape future treatments. In some cases, rare species are rare because of invasive plants, and milfoil has been shown to reduce bio-diversity in other lakes. The level of risk of the treatment may well prove to less than that presented by the no action alternative.

Fluridone Concentrations

Sonar® has been demonstrated to be effective for controlling Eurasian watermilfoil at concentrations as low as 5-8 ppb in whole lake treatments where dilution and water circulation are not a concern. Low concentration treatments, when effective, offer advantages including lower cost and reduced potential for impacts to non-target plant. Lower concentrations have been considered for the project. The selected dosages for the project balance the need for effective control of Eurasian watermilfoil with the benefits derived from lower target concentrations. Many native plant species within the treatment areas are known to be tolerant of fluridone at the target concentrations and other native species are expected to reoccur from seed stock within a year.

Biological Controls

As part of an integrated program involving physical, chemical and biological controls, use of herbivorous insects has experimental merit. Stocking weevils or moths in a small area of Lake George using the same sequestration system employed for fluridone is an appealing avenue for research but is not a reliable control approach at this time. Biological control of milfoil with insects is simply not at the same level of effectiveness as the use of fluridone and is not a viable substitute method of control for larger, moderate to high density watermilfoil growths.

Potential Public Health Impacts

Fluridone's potential impact on human health is evaluated in the Generic Environmental Impact Statement for registration of Sonar® in New York and the proposed use of Sonar® in this project

complies with the restrictions and limitations imposed by both the Federal and the New York product registration labels. Accordingly, no risk to human health is anticipated. There will be temporary limitation of the treated areas for swimming in areas treated with the liquid formulation of fluridone, based on New York label requirements which prohibit swimming in treatment areas for 24 hours following application of the liquid formulation. The timing of the project during the off-peak use period will further reduce the limited potential for exposure of lake users to fluridone in treated waters.

Economic and Social Considerations

Successful control of Eurasian watermilfoil will enhance longer term lake use. The economic well being of the Lake George area will not be harmed by the treatments, and would be enhanced by increased success of the overall Eurasian watermilfoil control program.

The project's timing, in off peak use periods will minimize the potential interference of the project with boating and recreational uses to the maximum extend practicable. The temporary navigation control plan will mitigate the potential public safety and navigation impacts associated with the placement of the sequestration curtains.

CERTIFICATIONS OF FINDINGS TO APPROVE:

Having considered the Final, Generic Supplemental and Supplemental EIS and having considered the preceding written facts and conclusions, this Statement of Findings certifies that:

1. The requirements of 6NYCRR 617 have been met.

2. The range of potential environmental impacts and potential human health impacts have been evaluated in the *Final Generic Environmental Impact Statement For The Use Of Registered Aquatic Herbicide Fluridone (Sonar) In New York* (1995) prepared for the New York State Department of Environmental Conservation. The project is in conformance with the specified limitations and restrictions identified therein and conforms with the New York State and Federal product registration labels.

3. Effective action for the management of Eurasian watermilfoil in Lake George is required to preserve the lake's superior quality and to avoid significant economic impacts to the region and the State. An effective tool for larger areas of moderate to high density watermilfoil growth is needed to fulfill the goal of a comprehensive management program.

4. The potential environmental impacts and alternatives for Eurasian watermilfoil control at Lake George have been considered in a Final Supplemental Environmental Impact Statement for the *Lake George Sonar® Demonstration Project* (June 2001).

5. The Commission has notified all property owners adjacent to and within one half mile of the treatment areas of the opportunity to object to the project and has recorded no objections.

6. The Commission has provided ample opportunity for public review and comment and has prepared a written summary and response to comments received.

7. Consistent with social, economic and other essential considerations, from among the reasonable alternatives available, the action avoids and minimizes the environmental impacts to the maximum extent practicable.

8. Consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental impacts identified in the FSEIS will be avoided or minimized by incorporating as conditions those mitigative measures which were identified as practicable.

Adopted:

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Mark C. Johnson PhD.
Chair
Lake George Park Commission